



## The Golden Ratio Teaching Project – Enhancing Harmony and Balance in the Teaching & Learning Process

Irina Gheorghiu<sup>1</sup>, Loredana Dănăilă<sup>2</sup>, Ramona Cîrșmari<sup>3</sup>, Claudia Elena Dinu<sup>4</sup>,  
Ovidiu Ursa<sup>5</sup>, Anca Colibaba<sup>6</sup>

Albert Ludwigs University Freiburg, Germany  
EuroEd School Iasi, Romania EuroEd School Iasi, Romania  
University of Medicine and Pharmacy Iasi, Romania  
University of Medicine and Pharmacy Cluj-Napoca, Romania  
EuroEd Foundation Iasi, Romania

### Abstract

*The article is a study based on the Golden Ratio Teaching (Interactive approaches and positive attitude for improving teaching and training skills) project, funded by the European Commission under the Erasmus+ Programme, KA2 - Strategic partnerships in the field of education and training. The project, coordinated by Cubufoundation (Bulgaria), is being implemented within a partnership made up of schools and art and educational centres from Bulgaria, Greece, Portugal and Romania. The project emphasizes the need for harmony and balance in education in order to improve students' learning strategies and enhance their motivation. It encourages teachers to integrate into their teaching practice various new and traditional approaches (through music and arts, drama and storytelling, etc.) with a view to instilling positive learning attitudes in their students. To this end, the project provides teachers with a toolbox and a range of tested approaches and methods which address students' individual talents and learning styles. The article presents the project's objectives and activities and describes the methods teachers in Romania used in their classes.*

**Keywords:** *learning strategies, motivation, harmony, new and traditional teaching approaches*

### 1. The European context

Europe faces new educational challenges brought about by accelerated economic and digital developments. The European Union seeks to foster cooperation between all EU member states to further enrich the quality and inclusiveness of their national education and training systems to the benefit of all learners, teachers and institutions [1]. The main goal of any system of education is to inspire, provoke and teach students how to learn. If students do not learn, there is no education. The Golden Ratio Teaching project (2020-1-BG01-KA201-079006) aims at supporting teachers in this challenging job. The project has set ambitious tasks of inspiring teachers, re-igniting the sparkle of their creativity and providing them with classroom-tested tools for teaching the required material [2].

### 2. The Golden ration teaching project

The Golden Ratio Teaching method, as its name suggests, puts a strong emphasis on harmony and balance. The Golden Ratio Teaching project (2020-1-BG01-KA201-079006) aims at improving teaching competences by providing teachers with a toolbox of tested approaches and methods addressing students' individual talents and learning styles. The toolbox enables teachers to cope with their complex school context and encourage a student-centred classroom where students' creativity and natural curiosity are enhanced. The project uses art as an inspirational tool in teaching other school subjects. Thus, art becomes a powerful means to engage students with diverse learning needs in a learning process meaningful to their lives. Art brings novelty and unexpected connections in the classroom, raising students' interest and stimulating their minds and imagination. In addition to this, using works of art in teaching does not require specialized knowledge or artistic skills [3, 4, 5, 6].

#### 2.1 The project's objectives, partnership and target groups

The project is being implemented in an international partnership made up of schools and organisations in the field of education from Bulgaria, Italy, Greece, Portugal and Romania. The project addresses twelve to sixteen-year-old students and their teachers. The project aims to enable teachers to achieve better results by combining methods that provide a harmonious balance between information, knowledge and skills for students of various learning types; to provide teachers with new methods which will break the routine in the teaching/learning processes and stir students' interest in learning; to



develop students' key competences and creativity by introducing innovative teaching methods customized to all types of learners [2].

## 2.2 The project's developments

The partners recruited five associated schools per country involving at least 2 teachers and four classes of students per school. The students were administered questionnaires which identified their learning styles (visual, tactile, auditory writing/reading or mixed). The findings raised teachers' awareness about their students' different ways of learning and also about the importance of using a variety of methods to meet students' needs in order to obtain the best results. Thus, the next step was the development of the Golden Ratio Teaching (GRT) toolbox including a range of methods and approaches for teachers to choose from. The toolbox comprises descriptions of the methods and their implementation as well as video guides with instructions. The partnership has identified four strands in the teaching methods: Group 1 - Flip the future (Italy and Portugal); Group 2 - Music in the air ((Bulgaria and Romania); Group 3 - Draw your mind (Bulgaria and Romania); Group 4 - Stories to remember (Bulgaria, Greece and Romania).

After a short online training event, the teachers selected the methods to use with their students, according to the students' needs as highlighted by the findings of the questionnaires administered to students. The teachers piloted the methods and collected a list of practices, tested within the project, which had a positive impact on the selected groups of students. The following chapter of the article focuses on the methods proposed by the Romania team.

## 3. The project's methods

### 3.1 Collage-making method

The collage-making method encourages teachers to use collage in the teaching/learning processes. During a teaching class or a teaching year, the students create maps which contain the main information. This map is the "deck" or the support where collage pieces of paper, photos, dates, names, flags, or other information are added gradually by students. During the lesson the teacher provides information and asks or stimulates students to ask questions that motivate students to work on the map. The map deck is placed on the wall. The teacher and students can refer to the information which is on the map, remove it or add new material whenever the case. The map can be used for different purposes: to introduce the new material, revise or check whether the students have learned it (Fig 1,2,3).



Fig 1



Fig 2

Fig 3

### 3.2 Mind-mapping

Mind-mapping is a creativity boosting tool encouraging brainstorming and stimulating students to give vent to their imagination. It engages students in learning and teaches them how to learn. When students mind-map, they have to recall, understand, analyze, synthesize, and generate new ideas. Students use their imagination to visualize the content, create relevant images and make connections between previous and new knowledge, which helps students to remember things (Fig 4).

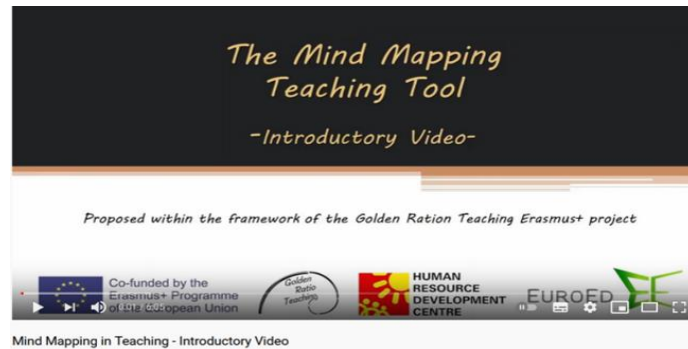


Fig 4

A mind map is a graphical representation of ideas displayed in a radial way. Mind maps are used to visualize, classify and organize ideas. They help students to take notes, review knowledge, prepare a presentation, an essay/ a report, organize projects, make decisions and solve problems. Mind maps can be used at any stage of the lessons encouraging brainstorming and generating discussions. They help students learn and understand concepts, showing not only the concepts in a variety of contexts but also connections between ideas [7].

### 3.2 Music masterpieces to be used in the classroom

The method is based on the use of famous musical works of acknowledged composers as a support tool during teaching/learning processes. The method is used to provide information relevant to the topic, explain abstract ideas, processes, functions or correlations, create an atmosphere relevant to the content or highlight information through imagination and association mechanisms. The method will provide a list of famous musical pieces (also soundtracks and songs) and suggestions on how to use them in different school subjects.

### 3.3 Historical figures in the classroom

The method invites teachers to choose a major inspiring personality - relevant to the educational content - and present the lesson as a personal story using the first-person narrative (Fig 5). The impersonation of historical personas is easily transferable to diverse subjects (history of arts, history of science, physics, mathematics, biology, etc.) and can be used in certain lessons or the whole school year. The method stirs students' interest and curiosity, enhances dialogue, reduces students' stress (the teacher is no longer perceived as a teacher but a personality such as Einstein) and increases participation and interaction. The dialogue between the teacher and the students can unfold in the present tense (as if the students were a research team, witnesses/contemporary to the event) or past tense (investigating the context or the invention from our current position). The method can be used to introduce, present or as a follow up to the topic [8].

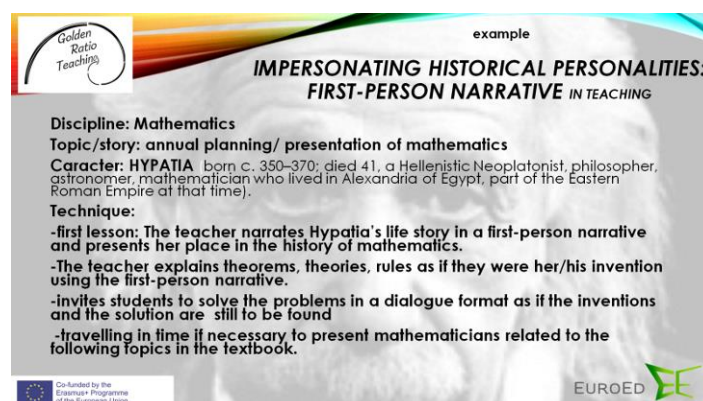


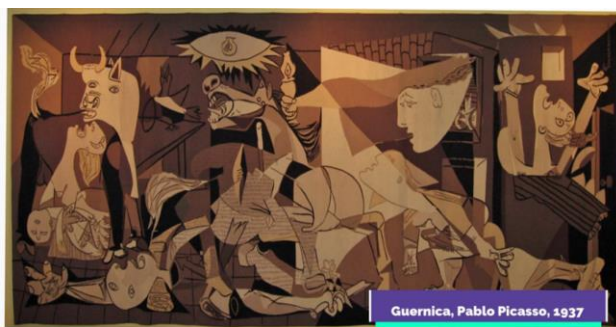
Fig 5

### 3.4 Famous paintings in the classroom

The objective of the method is to use paintings as useful support tools in order to make the teaching/learning processes more entertaining for teenage students and more effective in terms of the envisaged educational objectives (Fig 6/Fig 7). The method/tool provides a list of famous paintings



with guidelines and suggestions as to how to use them in classes. The method addresses teachers who love paintings and the history of art or have identified a class/students with this specific inclination and/or inclination to visual learning. The paintings can be selected according to their relevance to the educational content taking into consideration the impact of the painting itself and the importance of the painting in relation to the addressed specified knowledge. The paintings could be used as a tool transmitting specific knowledge (students examine the information provided by the painting); as a tool stimulating students' imagination and critical thinking skills (paintings as original lenses through which reality is recreated); as an assessment tool (students find paintings related to the subject, examine the painting and find more information; the teacher prepares a quiz based on the painting/-s at the end of the lesson).



Famous Paintings in Teaching - Introductory Video

Fig 6



Famous Paintings in Teaching - Introductory Video

Fig 7

#### 4. Conclusions

As humans, we are a combination of emotionality and rationality, the harmony of which depend on our experience of life. Art invites students to play with this balance, stretch their imagination and perceive life from different perspectives. Teachers often use visual images in their classes but asking students to engage with and respond to a piece of art can encourage them to become involved on a different level. Responding to art has the potential to develop students' creative and critical thinking skills. The Golden Ratio Teaching project is expected to have a number of positive long-term impacts on the teachers and students alike. This will ultimately result in a competence enhancement for teachers, enabling them to be successful and more efficient. Additionally, the students will enjoy their classes more and stay focused for longer periods of time.

#### References

- [1] European Commission, 2020, Achieving a European Education Area by 2025, Retrieved from [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_1743](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1743)
- [2] Golden ration project, 2020, Retrieved from <http://golden-ratio-teaching.eu/about-the-project/>
- [3] Church, E., B., 2021, Learning through arts, <https://www.scholastic.com/teachers/articles/teaching-content/learning-through-arts/>
- [4] Lightfoot, A., Art in the classroom, Retrieved from <https://www.teachingenglish.org.uk/article/art-classroom>
- [5] Oreck, B., 2021, The arts in teaching: An investigation of factors influencing teachers' use of the arts in the classroom, Retrieved from [https://www.researchgate.net/publication/27403075\\_The\\_arts\\_in\\_teaching\\_An\\_investigation\\_of\\_factor\\_s\\_influencing\\_teachers%27\\_use\\_of\\_the\\_arts\\_in\\_the\\_classroom](https://www.researchgate.net/publication/27403075_The_arts_in_teaching_An_investigation_of_factor_s_influencing_teachers%27_use_of_the_arts_in_the_classroom)
- [6] Swapp, N., 2016, Creativity and Academics: The Power of an Arts Education, Retrieved from <https://www.edutopia.org/blog/creativity-academics-power-of-arts-education-neil-swapp>
- [7] Jones, B., Ruff, C., Snyder, J., Koonce, C., 2012, The Effects of Mind Mapping Activities on Students' Motivation, Retrieved from <https://cupola.gettysburg.edu/edfac>
- [8] Hu, J., Gordon, C., 2020, Once upon a star, Retrieved from <https://doi.org/10.1080/10409289.2020.1759011>