We elaborated basic guiding principles that will be used to improve the content of the ENVRIPLUS e-Training Platform for multimedia education of Secondary School level teachers and students. The purpose is to favour teacher training and consequently students training on selected scientific themes faced within the ENVRIPLUS Research Infrastructures. “Best practices” could positively impacts on students by providing motivation on promoting scientific research and to increase the awareness of the Earth System complexity and Environmental challenges for its preservation and sustainability. Best practice teaching strategies represent an inherent part of a curriculum that exemplifies the connection and relevance identified in education research. The actions are designed to develop thinking and problem-solving skill through integration and active learning. Relationships are built through opportunities for communication and teamwork. Best practices motivate, engage and prompt student to learn and achieve.

**Biodiversity and Climate Change**

**Living with Natural Phenomena**

**Scientific Methods**

**Resources/Sustainability of our Planet**

**Create Active Participants Rather Than Passive Observer**, favouring activity that includes the use of technological resources in classroom daily practices and hands-on activity. Students should interact with others to construct meaning from new ideas and concepts based on their background knowledge. Active Learning is fast-paced, fun and personally engaging because students have the opportunity to try things out, use their own sense and experiences both for teachers and students who can participate and share own skills and competencies for a common goal. 

**Increase Individual Consciousness and Involvement**. Empowers students to take ownership of their learning, by letting students choosing and engaging self-evaluation, peer review, and feedback to teachers. 

**Privilege Visual Content to Text Content**. Visual content can come in many forms, but the most common examples are images, videos, slideshows or info graphics. Visual content has become increasingly popular. Studies show visuals are processed 60,000 times faster than text. This means that images are better at grabbing the attention, thus making them quicker and more effective than text at communicating key information. INCLUDE A "WIKI-LIKE" SECTION. A section editable by all registered users that allows users to create, edit, share and exchange documents directly on the live-site, without access to the full-featured administration interface. INCLUDE COMPETITIVE ENVIRONMENT/ACTIONS. Both games and challenges explicitly designed for educational purposes. This approach can be used to balance subject matter with gameplay and the player ability to retain, and apply said subject matter to the real world. Edugame satisfy the important need to learn by providing enjoyment, passionate involvement, structure, motivation, ego gratification, admixture, creativity, social interaction and emotion in the game that while the learning takes place. CREATE A REPOSITORY OF IMAGES, URL LINKS. Empowers students to find their own information and connections, expanding the extent of knowledge also on the basis of personal interests and inclinations and to exploit and share their ability and competences.

**Be Inclusive in Respect to Learning Disability**. Inclusivity represents a full range of human diversity with respect to ability, language, culture, gender, age and of other form of human differences. Principles of inclusion will be taken in account to raise self-esteem and respect. Principles of inclusion will be taken in account to raise self-esteem and respect.

**Stimulate Students Direct Production of Dissemination Material**. Increase students motivation through exploring individual interest and the direct production of multimedia equipment, lectures and presentation, graphic tools, posters and videos, mini-reviews. PROVIDE TUTORIALS. Create a comprehensive guide and easy to use, identifying needs, organizing content, organizing information, finding and citing sources.

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**European Geosciences Union General Assembly 2016 Vienna Austria April 2016 EOS5 13070**

**SCIENTIFIC METHODS**

**LIVING with NATURAL PHENOMENA**

**RESOURCES/SUSTAINABILITY of our PLANET**

**BIODIVERSITY and CLIMATE CHANGE**

**Observation**

**Hypothesis**

**Testing**

**Communicate**

**Question**

**Prediction**

**Preserve**

**CITATION**

**PROVIDE TUTORIALS**

**CREATE ACTIVE PARTICIPANTS RATHER THAN PASSIVE OBSERVER**, favouring activity that includes the use of technological resources in classroom daily practices and hands-on activity. Students should interact with others to construct meaning from new ideas and concepts based on their background knowledge. Active Learning is fast-paced, fun and personally engaging because students have the opportunity to try things out, use their own sense and experiences both for teachers and students who can participate and share own skills and competencies for a common goal.

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