



Creativity and Innovation



ATS2020

Assessment of Transversal Skills

Short Description:

Students identify and match needs with possible solutions, integrate and re-elaborate existing resources, innovate and creatively use tools and resources, and create original works as a means of expression.

Competences and Skills	Attainment Goals	Digital Competences and Skills	Attainment Examples			Level of "proficiency" 1	Level of "proficiency" 2	Level of "proficiency" 3
			Stands (way of thinking)	Actions (way of working)	Ethics (way of living)			
1. Identify and match needs with possible solutions	1.1 Assess own needs in terms of knowledge, resources, tools and competence development	<ul style="list-style-type: none"> Use information found in digital environments to identify needs Identify own needs through Internet and Social Media Adjust Internet searches according to specific needs Find relevant communities, networks, and social media that correspond to their interests and needs Adapt digital tools to personal needs Explore the web, the market, or their online network when searching for solutions 	<ul style="list-style-type: none"> Seek for resources, tools and competence development Think through a non-routine problem step-by-step and set strategy in problem solving Reflect and identify own needs 	<ul style="list-style-type: none"> Define the problem Set the specifications and requirements Investigate the parameters of the problem to guide their approach Look for sources of information and digital tools to find help for problem-solving Find the relevant knowledge for the solution Use knowledge, reasoning and skills in devising strategies 	<ul style="list-style-type: none"> Appreciate the added value of resources Acquire self-assessment of own needs Evaluate their strengths and suggest ways to improve them Accept their weaknesses and find ways to empower them Develop intrinsic motivation 	Use existing knowledge, make decisions and take actions when solving a routine task, but asking for help when facing a new or ill-defined problem.	Solve a non-familiar or ill-defined task by exploring different possibilities (tools, technologies) and making a decision about which is the most effective.	Make informed decisions when choosing a method, tool, device, application, software or service for a non-familiar task. Understand how new methods or tools work and operate. Plan, monitor and critically evaluate which method or tool will serve their needs the best.
	1.2 Critically evaluate possible solutions	<ul style="list-style-type: none"> Use digital tools to evaluate possible solutions Use digital tools and resources which help in the decision making process 	<ul style="list-style-type: none"> Novel and adaptive thinking (finding new solutions and responses to unexpected circumstances) Make informed decisions about whether and how to pursue relevant goals Be critical about possible solutions Imagine different scenarios and predict different outcomes 	<ul style="list-style-type: none"> Make a decision to select the appropriate solution Choose the most appropriate solution Rely to tangible criteria in order to evaluate possible solutions Explore alternative solutions that are offered Revise the possible solutions 	<ul style="list-style-type: none"> Maintain an open mind to alternative interpretations-solutions Critical/analytical thinking in evaluating possible solutions Put aside personal prejudices and biases in the process of evaluating Comfort in disagreeing with others and trying solutions Step away from an effort and return later with a fresh perspective Redefine problems effectively and think insightfully 			
	1.3 Implement ideas and take action	<ul style="list-style-type: none"> Use digital models and simulations to implement the ideas Use digital tools and resources to help making the action plan 	<ul style="list-style-type: none"> Evaluate different ideas and actions Think about the way and the stages the ideas are implemented 	<ul style="list-style-type: none"> Develop, implement and communicate new ideas to others effectively Make an action plan Monitor progress effectively throughout the implementation of the plan Test out ideas See things through to completion Test the solution and iterate on improvements Interpret and construct dynamic models and simulations of real world processes 	<ul style="list-style-type: none"> Emphasize on the process and not on the product Effectively confront the obstacles that arise during the implementation of ideas Be patient Take the time to appreciate the journey and understand how things work Take risks and learn from their mistakes and failures 			
2. Integrate and re-elaborate	2.1 Modify and refine existing resources	<ul style="list-style-type: none"> Search for information in digital environments Create and edit digital content Use software tools to edit text, presentations, videos and other formats Use digital tools to recover existing knowledge and skills Be aware of digital safety and security issues when editing and publishing content online 	<ul style="list-style-type: none"> Use a wide range of idea creation techniques Know about different resources and databases that can be remixed and re-used Seek out different viewpoints and perspectives and consider them carefully Take inspiration from others Balance between breadth and depth of knowledge Consider the dynamics in the existing environment and experiment with the surroundings 	<ul style="list-style-type: none"> Modify content in simple, basic ways Distinguish the specific elements of the resources that need/want to be modified or refined Identify the advantages and disadvantages of the existing resources and try to eliminate the disadvantages 	<ul style="list-style-type: none"> Judge and appreciate the work of others Recognise the value of creativity Consider licences regulation principles of use and publication of information Understand copyright and licence rules Behave independently and assumes responsibility for own behaviour and choice Develop self-confidence, self-esteem and self-efficacy Understand and question context, ownership, regulation, audiences, economic, legal, privacy and security issues of media and information Develop awareness of the importance of assessing content with a sceptical stance and with a self-awareness of their own biases and worldview 	Make basic changes to the content that others have produced.	Edit, refine and modify the content they or others have produced.	Critically elaborate and mash-up existing items of content.
	2.2 Critically elaborate and mash-up existing resources	<ul style="list-style-type: none"> Contribute to the public knowledge domain (e.g. wikis, public forums, reviews) Explore the possibilities of mixing different technologies and digital media to help them reflect and synthesize 	<ul style="list-style-type: none"> Think about the way the existing resources can be synthesized Come up with new original ideas Combine knowledge from previously disparate fields Understand the reliability of different resources Be critical towards content, based on the source, media, time and other criteria that they pose 	<ul style="list-style-type: none"> Remix different existing content Create new by mixing and matching old Cross check information sources Evaluate resources based on their relevance, accuracy, authority, currency, objectivity, coverage, usability in order to select them Compare, contrast and integrate information from different sources Distinguish and evaluate the disparate elements of each resource and combine them in a productive and meaningful way Combine bits of relevant information in novel ways Compare new information to old information in novel ways 				
3. Innovate and creatively use tools and resources	3.1 Be aware of tools and resources that can be used for creative purposes	<ul style="list-style-type: none"> Search for appropriate digital tools to support creativity and innovation Evaluate digital tools based on criteria relating to creativity and innovation 	<ul style="list-style-type: none"> See the potential of technologies and media for being creative 	<ul style="list-style-type: none"> Discover, edit and use tools and resources creatively and innovatively 	<ul style="list-style-type: none"> Lifelong learning-stay updated on the latest technology trends and new tools and resources 	Know that tools and resources can be used for creative purposes and make some creative use of them.	Use tools and resources for creative outputs and for solving problems (i.e. visualizing a problem).	Solve conceptual problems, contribute to the knowledge creation and take part in innovative actions, by taking advantage of tools and resources.
	3.2 Express themselves creatively with the use of tools and resources	<ul style="list-style-type: none"> Apply digital tools to gather, evaluate, and use information Use a variety of media to express themselves creatively (text, images, audio, and video) 	<ul style="list-style-type: none"> Think about which tool or resource suits better with their style and can express more effectively themselves 	<ul style="list-style-type: none"> Exploit technological potentials in order to express themselves effectively Use tools and resources to learn, think and express themselves 	<ul style="list-style-type: none"> Judge and appreciate the work of others Consider licences regulation principles of use and publication of information Understand copyright and licence rules Use ICT effectively and ethically in learning and life 			
	3.3 Create knowledge and solve conceptual problems in innovative ways	<ul style="list-style-type: none"> Use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions Use ICT to present and share new knowledge and solutions of a problem Use digital tools and technologies for collaborative processes, and for co-construction and co-creation of resources and knowledge 	<ul style="list-style-type: none"> Identify the essential elements in a problem as well as the interaction between these elements and use electronic tools to facilitate analysis Have in mind the traditional problem solving process and think about a new and innovative one 	<ul style="list-style-type: none"> Select appropriate tools to create new content Explore the possibilities of mixing different technologies and digital media to help them reflect, problem solve and present ideas Use visualization tools to represent data in ways never before possible Solve a theoretical problem, of individual or collective interest, through or with the support of tools and resources Make hypothesis Design coherent solutions Conceptualize possible solutions to problems or explanations that are novel Recognize consequences for solutions to problems 	<ul style="list-style-type: none"> Appreciate the adding value of tools and resources in solving problems and creating knowledge in innovative way Be pro-active in looking for solutions Recognise the potential use of knowledge, skills and understanding in solving conceptual problems 			
4. Create original works as a means of expression	4.1 Create new and original content, ideas and products	<ul style="list-style-type: none"> Use software tools and multimedia to create new content in different formats (text, presentations, videos) Create an eportfolio Create digital media objects which demonstrate creativity and imagination to present the outcome Use a variety of digital tools and resources to create collections of artefacts 	<ul style="list-style-type: none"> Get inspiration by going out into the world to seek experiences that spark the imagination See the potential of technologies and media for self-expression and content creation Think out of the box and look beyond the obviously Apply entrepreneurship way of thinking in creativity and innovation 	<ul style="list-style-type: none"> Create original works as a means of personal or group expression Create models, visualizations, simulations and representations Develop, test and refine prototypes as part of a cyclical design process Present and evaluate creative process and final product, using domain-appropriate criteria Incorporate feelings, life stances and parts of own personality and interests into work Communicate complex ideas clearly and effectively Use a deliberate design process for generating ideas, testing theories and creating innovative artefacts Be involved in negotiation with the teacher, encouraging reflection Reflect on production process and determine elements that worked well and those that might be modified in the future Act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur Incorporate alternate, divergent or contradictory perspectives or ideas Provide a critique of the curriculum 	<ul style="list-style-type: none"> Demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas Understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions Be open in new radical concepts Be imaginative, open-minded, flexible and adaptable Apply intellectual skills in everyday contexts and promote creative ideas Step away from an effort and return later with a fresh perspective Take risks Overcome personal fears to try something new Understand the contribution of creativity and innovation in their daily life 	Produce new content, ideas and products in a creative way.	Produce new, original content, ideas and products in a creative and expressive way.	Produce and extend new, original content, ideas and products in a creative and expressive way, presenting an innovative outcome. Effectively criticize the quality of their final content, ideas and products based on clear and tangible criteria, proving the development of their critical thinking skill.