



21st CENTURY CLASSROOMS: meeting the **challenge** of the **digital** era with **innovation** and **creativity**

Chapter 4: *Future classroom: Students' evaluation system*

Good Practices

1. School/Institution	
Agrupamento de Escolas de Atougua da Baleia - Portugal	
2. Theoretical approach or conceptual guideline	
Structuring axes of our School Educational Project: <ul style="list-style-type: none"> - Technology and communication - Citizenship Education - Education for the success 	
3. Context references pertinent to the main issue	
<ul style="list-style-type: none"> - Produce educational resources - Use a variety of web tools and devices - Instant feedback and formative evaluation 	
4. Good practices identification	
Use of several tools and devices for students' assessment – Students response system (ActivExpression; Plickers); Game based learning (Kahoot); Inquiry based learning (Peardeck); Interactive lesson delivery system (Classflow); Behaviour management system (Classcharts);	
a. Justification (Why is it a good practice?)	
Context	<ul style="list-style-type: none"> - The use of new teaching strategies as a result of using diversified technology, in the context of school, resulted in a necessary change in traditional valuation models; - We understand that evaluation in schools is a very important part of learning, and can enhance it; - Redefine strategies according to the results obtained; - Create instant feedback of results; - Allow students to know what they need to improve; - Offer a variety of assessment instruments; - Communication of the student's assessment using different media; - Valuing all the interventions of the students; - Greater information and parental approach to student assessment, for enhancing their collaboration in the improvement of educational attainment; - Promote different skills in students, including the twenty-first century skills;

	<p>Problem situation or Dream Departure</p> <ul style="list-style-type: none"> - Improve student success; - Adopt strategies depending on the achieved results; - Motivate students to improve learning; - Communicate with parents in a quick and efficient way;
<p>Difficulties and problems</p>	<p>Technological</p> <ul style="list-style-type: none"> - Web-based programs - if there is not a good broadband some programs do not work (Data transfer speed); - Good technical support for problems resolution; - Need to have updated equipments;
	<p>Training</p> <ul style="list-style-type: none"> - Have the right and available trainers to interact with the several subjects; - Time to explore, develop and test activities in different digital supports; - Use the tools correctly;
	<p>Human</p> <ul style="list-style-type: none"> - Difficulties in changing the mindset of some teachers and parents, facing the new challenges of the XXI century which develop new skills; - Insecurity; - (No) Motivation;
	<p>Budget</p>
	<ul style="list-style-type: none"> - The lack of public funding for investment in the new technologies;

b. Process			
Tool/Device	Skills	Advantages	Disadvantages
ActivExpression ActiVote <i>Students response system</i>	Purpose: Assessment; Presentation; Learning activities;		
	<ul style="list-style-type: none"> - Critical thinking; - Creativity; 	<ul style="list-style-type: none"> - Instant feedback (for teacher and student); - Live results; - Self-paced questions (Respects different rhythms of learning); - Multi-response options; - Downloadable spreadsheet with the results; - Easy-to-use; - Needs no net; 	<ul style="list-style-type: none"> - Initial budget; - Batteries; - Deteriorates easily with humidity;
Classcharts <i>Behaviour management system</i>	Purpose: Assessment; Classroom Management;		
	<ul style="list-style-type: none"> - Social-emotional learning; 	<ul style="list-style-type: none"> - Fast behaviour management; - Generates charts about students behaviour; - Give positive or negative reinforcement quickly; - Recognition of success; - Results can be shared with teachers, pupils and parents; - Promotes collaborative work; - Improvement of behaviour and general assessment; - Instant feedback; - Easy-to-use; 	<ul style="list-style-type: none"> - Web-based; - Effective use is dependent on how teachers use it; - Freemium;
Kahoot <i>Game based learning</i>	Purpose: Assessment; Promote knowledge;		
	<ul style="list-style-type: none"> - Critical Thinking; - Social-Emotional Learning; 	<ul style="list-style-type: none"> - Engage students in formative assessment activities/quizzes; - Fun and interactive; - Easy-to-use and intuitive; - Adaptability for most ages and contents; - Instant feedback (for students and teachers); - Generate more knowledge (by memorizing); - Multi-response options; - Downloadable spreadsheet with the results; - Allows sharing; - Set as homework; - No need to have an account; - Free; - Used across multiple devices; - Google integration (Drive); 	<ul style="list-style-type: none"> - Web-based - Exclusively digital (can't print the kahoot itself)

Tool/Device	Skills	Advantages	Disadvantages
<p>Peardeck (+ Google add-on: Flubaroo)</p> <p><i>Inquiry based learning</i></p>	<p>Purpose: Assessment; Learning activities;</p> <ul style="list-style-type: none"> - Critical thinking; - Communication and collaboration; - Social-Emotional Learning; - Creativity; 	<ul style="list-style-type: none"> - Downloadable spreadsheet with the results; - Allows sharing; - Multi-response options; - Instant feedback; - Easy-to-use; - Live results; - Blocks answers; - Individual and social learning; - Printable; - Intuitive; - Google integration; - Automatically Grade with flubaroo; - Used across multiple devices; 	<ul style="list-style-type: none"> - Web-based; - Students need an email account; - Freemium; - Can't change fonts;
<p>Classflow</p> <p><i>Interactive lesson delivery system</i></p>	<p>Purpose: Assessment; Deliver interactive lessons; Learning activities; Promote knowledge;</p> <ul style="list-style-type: none"> - Critical thinking; - Communication and collaboration; - Social-Emotional Learning; - Creativity; - ICT 	<ul style="list-style-type: none"> - Individualize learning; - Self-paced questions (Respects different rhythms of learning); - Instant feedback; - Live results; - Multi-response options (write, draw, photo, multiple choice...); - Incorporates information in different supports (video, images, links...); - Promotes self and peer assessment; - Blocks answers (stop poll); - Used across multiple devices; - No need to have an account; - Free; - Instant interactivity; - Dynamic; - Collaborative work; - Limitless responses; 	<ul style="list-style-type: none"> - Web-based; - Not intuitive;
<p>Plickers</p> <p><i>Low tech rapid-response tool</i></p>	<p>Purpose: Assessment;</p> <ul style="list-style-type: none"> - Critical thinking; 	<ul style="list-style-type: none"> - Requires little tech; - Versatile; - Rapid-response; - Instant Feedback; - Combines a simple tool with mobile technology; 	<ul style="list-style-type: none"> - Only works on Android or IOS devices;
<p>Other tools:</p>	<ul style="list-style-type: none"> - Go formative (Online formative assessment, classwork or homework); - Edpuzzle (interactive lessons with videos); - QR code generator/reader; - Triventy (game based learning); - Mentimeter (audience response system); 		

c. Assessment	
Good Results (what kind of results?)	Improvement of the results (internal and external assessment).
Impact	1. At school
	<ul style="list-style-type: none"> - The tools and devices are used by almost all the teachers in School (increase on the number of requisitions); - Increase of the teachers' participation in school training activities: <ul style="list-style-type: none"> . The Tablet in the Teaching Practice; . Creativity, new technologies and new interactive and collaborative environments; . The Interactive White Boards in the teaching practice; . Stimulus for improved Learning; . Technologies and interactive environments in the classroom of the future; . Evaluation of learning - digital tools and web environments; - The teachers knowledge on ICT have been greatly enlarged and renewed with added skills; - The engagement of students has increased (they produce and present digital materials more effectively; they are more motivated);
	2. Impact on community and feedback
	<ul style="list-style-type: none"> - More formative assessment elements; - Quicker access to information (Direct application to Classcharts – assessment and behaviour in real time); - Most attentive parents;
The next step	1. The future (of these good practices)
	<ul style="list-style-type: none"> - Generalize the use of web tools and devices; - Greater appreciation of the assessment of learning, than the valorization of educational outcomes (rating and ranking);
	2. Problems to overcome
	<ul style="list-style-type: none"> - Create assessment tools for the new XXI century skills; - Hope the educational policies to accompany more rapidly the changing of the teaching practices and reflect that into curricula and in the external assessment.