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LIVE, LAUGH AND LOVE TO LEARN

LIVE, LAUGH AND LOVE TO LEARN

Turning learning from traditional to transformational

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Abstract: In recent years, educators and policy makers have been focusing on student achievement and well-being. After the great Pisa -success and glory, Finnish researchers have risen up discussion about future skills, school activity and motivation – fields where Finnish students haven't indicated so well. Quickly changing 21st century challenges teachers to see life outside the school and recognize not only the core subjects but also the key skills needed outside there. When transferring from traditional to transformational education, one has to imagine new ways to think about teaching and learning.

The research project, introduced in this article, focuses on transformational pedagogic and the questions of assessment in the learning process. The aim of the research is to identify modern ways to develop teaching and learning to create individual learning paths and to give each child equal learning possibilities in 21st century learning environments.

The ongoing research project highlights the questions of evaluation and assessment as tools for each child to find individual ways to learn and achieve learning goals at his best. According to Meriläinen and Piispanen (2013) the assessment is seen as one of the key factors when moving teaching and learning from traditional to more transformational settings.

The classroom intervention is based on the Contextual Pedagogical approach to Learning (CPAL) as a framework of teacher's 21st Century Civil Skills Pedagogical Content Knowledge ((Meriläinen & Piispanen, 2012, 2013). This design research shows that working in CPAL framework supports learning, where everyone will succeed, through individual learning paths, in primary school contexts.

Key words: Learning environment, Transformational pedagogic, Contextual pedagogical approach towards learning, 21st Century CSPCK

1. TOWARDS AUTHENTIC AND CREATIVE LEARNING ENVIRONMENTS

As Meriläinen and Piispanen (2013) states, quickly changing 21st century challenges teachers to see life outside the school and recognize not only the core subjects but also the key skills needed outside there. The report Learning for the 21st Century identifies nine types of learning skills, which are divided into three different key areas as following in Table 1. In different learning contexts, in society which develops fast, the school should stay along in this development and should help students to learn not only the contents which arise from the curriculum, but also the skills and matters that one needs in today's and future society. (cf. Levin 2011, 4; Zhao 2011, 4). More important than a huge amount of detailed information, should according to Meriläinen & Piispanen (2012) be the multidimensional education, which comprises the know-how of different skills to make a good use of curriculum general information. If you look at students born in late 90s and early 2000, you can see an enormous gap between the knowledge and skills students learn in school and the knowledge and skills they need in typical 21st century communities and working places. Today's education system faces irrelevance unless we bridge the gap between how students live and how they learn. Moving from content knowledge to learning and life skills is essential when training students to be successful in their lives after school.

Table 1. 21st Century learning skills

<i>21st Century Learning Skills</i>		
INFORMATION AND COMMUNICATION SKILLS	THINKING AND PROBLEM SOLVING SKILLS	INTERPERSONAL AND SELF-DIRECTIONAL SKILLS
Information and Media Literacy Skills <ul style="list-style-type: none"> • Accessing and managing information. • Integrating and creating information. • Evaluating and analyzing information. 	Critical Thinking and Systems Thinking <ul style="list-style-type: none"> • Exercising sound reasoning. • Making complex choices. • Understanding the interconnections among systems. Problem Identification, Formulation & Solution	Interpersonal and Collaborative Skills <ul style="list-style-type: none"> • Demonstrating teamwork and working productively with others. • Demonstrating and the ability to adapt to varied roles and responsibilities. • Exercise empathy

<p>Communication Skills</p> <p>Understanding, managing, and creating effective communications</p> <ul style="list-style-type: none"> • orally • written • using multimedia 	<p>Ability to</p> <ul style="list-style-type: none"> • frame • analyze • solve problems. <p>Creativity and Intellectual Curiosity</p> <p><i>Develop</i></p> <ul style="list-style-type: none"> • implement • communicate • new ideas to others. 	<p>and respecting diverse perspectives.</p> <p>Self-Direction</p> <p>Monitoring one's own understanding and learning needs</p> <ul style="list-style-type: none"> • Locating resources • Transferring learning from one domain to another. <p>Accountability and Adaptability</p> <ul style="list-style-type: none"> • Exercising personal responsibility and flexibility in personal, workplace and community contexts. • Setting and meeting high standards and goals for one's self and others. <p>Social Responsibility</p> <ul style="list-style-type: none"> • Acting responsibly with the interests of the larger community in mind. • Demonstrating ethical behavior in personal, workplace and community contexts.
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2. THE DIMENSIONS OF 21ST CENTURY TEACHERHOOD

The teacher's challenge in today's education is to strengthen the students' natural ways to learn and produce information in new learning environments. Learning is thus seen as something happening in connection with an individual and his or her environment. Norrena, Kankaanranta and Nieminen (2011) argue that there has to be a significant pedagogical change in school

routines and pedagogical operations to move from teaching to learning and towards 21st century requirements. How will this change become true in school contexts – what are those pedagogical changes in the field of curriculum, planning and implementing as well as the roles of teachers and students? As Meriläinen and Piispanen (2013) highlights, the Figure of 21st Century Civil Skills Pedagogical Content Knowledge (21st Century CSPCK) (Fig. 1) attempts to identify the nature of vast pedagogical knowledge required when turning learning from traditional to transformational i.e. blending the 21st century civil skills in to the authentic learning contexts and the curriculum.

Figure 1. The 21st Century Civil Skills Pedagogical Content Knowledge (21st Century CSPCK). (Following Mishra & Koehler 2006, 2009)

The basis of the framework is the understanding that teaching itself is a highly complex activity that draws on many kinds of knowledge. This knowledge, as Ashe and Bibi (2011) highlights, is diverse and includes both content and pedagogical knowledge. In recent years the new type of knowledge has been raised to attention that of 21st century skills or 21st century civil skills as Finnish National Board of Education has named that knowledge in curriculum renewing process. The 21st Century CSPCK –

figure articulates the role of 21st century civil skills in the process of teaching and learning in a really blended manner. In 21st Century CSPCK – model the emphasis is put on competency, performance and capabilities and the key question in learning situations is rather how the information will be used than what the information is. At the heart of the 21st Century Civil Skills Pedagogical Content Knowledge framework, is the complex interplay of three primary forms of knowledge: 21st Century Civil Skills Knowledge (21st Century CSK), Pedagogical Knowledge (PK), and Curriculum Content Knowledge (CCK). It is essential to find the 21st Century Civil Skills Pedagogical Content Knowledge point of intersect, where the three primary forms of knowledge meets each other and use that essence as a starting point when creating innovative and enthusiastic learning situations. (cf. Mishra & Koehler 2006, 2009) As Meriläinen & Piispanen (2012) highlights, the planning process is to be viewed from at least three different angles as pictured in Fig.1. What do we mean by that is that the emphasis of learning should not only lie on curriculum contents (subject contents) themselves, but these contents should act as tools for accomplishing 21st century civil skills by arranging learning situations and environments as authentic as possible to support vast and deep understanding of every day phenomena. The 21st century civil skills should also not be seen as isolated skills or learning targets, but they should be examined as visible parts of a learning context. Together all the three knowledge areas will create a successful and pedagogically meaningful learning process produced by students and supported by teachers. (Meriläinen and Piispanen, 2013 8-9.)

3. TURNING LEARNING FROM TRADITIONAL TO TRANSFORMATIONAL

When transferring from traditional education to transformational, one has to imagine new ways to think about teaching and learning. According to Chaltain (2011) traditional schools assume the student will bear the primary responsibility for learning while transformational schools shares that via a learning team that includes, and extends beyond the teacher and student. In terms of student achievement, a traditional school emphasizes test results instead of students' aspirations and life options which transformational school focuses on. In transformational school, the target will be in working to build passion for learning in all students.

Student achievement is a primary focus in all teaching and learning situations. Learning experiences should, according to Drake and Burns (2004), be relevant to student's interests. When students are engaged in

learning, as the writers highlight (2004), students will manage well in multiple academic areas.

When moving from traditional pedagogy towards transformational education, the use of 21st Century CSPCK –framework as a ground of learning will expand the learning process to include the 21st century civil skills knowledge as one of the three key elements in all planning, learning, teaching and assessing.

The difference between traditional pedagogy (subject or theme based learning) and transformational pedagogy (contextual pedagogical approach to learning) lies all the way from planning to implementing on the roles of the curriculum, teacher and student as well as learning tasks, assessment and learning environments as Meriläinen & Piispanen (2012) states.

Traditional, subject centered or multidisciplinary integration, which is commonly known as theme-teaching, focuses primary on the disciplines. The curriculum contents are integrated around a theme raised commonly from the curriculum. In this traditional pedagogical model one can recognize different disciplines. The working methods and the operation culture is often based on the use of text books, traditional learning tasks and concentrating on the content rather than skills. Student's learning outcomes are usually similar to each other and learning situations are teacher centered. The assessment happens mainly in the end of the learning unit and the common way to collect relevant evaluation material is tests.

Highly structured and disciplined schooling systems do not necessarily prepare students well for the challenges of the future. The transformational pedagogy, as Meriläinen and Piispanen (2012) highlights, will contribute significantly to the preparation of a future workforce.

Transformational, transdisciplinary integration, as Meriläinen and Piispanen (2012) calls Contextual Pedagogical approach to learning (Fig. 2), focuses on the three different knowledge areas as presented in Figure 1. In the transdisciplinary approach to integration, according to Drake & Burns (2004), a teacher will organize curriculum around the student questions and as Meriläinen and Piispanen (2012) adds, around the real life phenomena and operation cultures that rises from there. Instead of one discipline the examination is directed to the phenomenon at a transdisciplinary point of view. With the dialog between the curriculum and society around, one will look for answers by thinking, concluding and examining, which will support the development of 21st century civil skills simultaneously with the development of content knowledge.

The contextual pedagogical approach, based on real life phenomena, is a way to examine the curriculum in the relation with the surrounding society. The curriculum and different subject contents will be examined transdisciplinary and one can realize the connections between curriculum and surrounding society. As a result you will recognize and see the operation culture of the school reflecting the operation culture of the external world.

(Meriläinen, Piispanen & Valli 2013.) The curriculum will come alive as authentic as possible with real life tasks, roles and environments as mentioned earlier. In transformational model of pedagogy, students will naturally develop life skills as a norm. In authentic learning tasks e.g. planning guided tours around the city with the city guides the emphasis is rather on the skills than on the content –both skills knowledge and content knowledge are to be learned and assessed. In the model of transformational learning the content will act as a tool for learning 21st century civil skills. The assessment for knowing and understanding in transformational pedagogy is performance-based. Instead of testing the memory and seeking for one right answer, the assessment focuses on interdisciplinary concepts and skills and the culminating activity will reflect this. The assessment criteria are presented to students in the beginning of the project so that each student can and will do well on it.

Table 2. presents side by side the typical features of traditional and transformational teaching and learning from the teachers and students points of view throughout the process.

Table 2. From planning to assessment in traditional and transformational pedagogical models.

From planning to assessment				
	in traditional pedagogical model		in transformational pedagogical model	
	Teachers role	Students role	Teachers role	Students role
BASIS FOR PLANNING	Core curriculum, text books, teacher handbooks	Not involved	Students interests, surrounding society, real life habits and skills	Strengths, students profiles
TOOLS FOR PLANNING	Different subject contents Learning materials (books, text books, learning games, etc. Teacher handbooks - Schedule External structures -Multidisciplinary approach	Not involved	21st Century CKPCK Transdisciplinary approach -Real life experts	Strengths, students profiles

LEARNING SITUATIONS				
in the beginning of the process	Teacher driven, group instructions Teacher has the knowledge – knows what is meant to learn and how Teacher presents the learning case Teacher centered	Receiving information Acting according to teacher driven instructions Using material given by the teacher	Teacher as a motivator Presenting the project, mission, aims and assessment criteria.	Personalized learning plans Students themselves set the goals
during the process	The interaction in the classroom from teacher to student, from student the teacher	Working with text books and materials made by someone else Everyone working according the instructions approximately at the same time -Talented students will have additional tasks Weak students will do less or leave tasks unfinished	Leader of the learning community Feedback by discussing with learners Supporting when needed Aware of each child's strengths and weaknesses, willing and able to support during the learning process	Students working collaboratively as a team Multiple ways to show learning - Multiple use of ICT -Learning by working with real life task in real life roles with real life experts
in the end of the process	Testing the knowledge with self-made or ready make tests. Gives feedback with test numbers.	Everyone has done well-nigh the same tasks in the end of the process	Support towards the goals Discussion of learning Assessment as learning	Students build exhibitions, festivals, workshops etc. to show what they have done during the learning process
ASSESSMENT	Teacher knows the assessment criteria -Teacher	Students don't know the assessment	The assessment criteria will be visible and	Students are aware of the assessment

	provides feedback -The final assessment is based on activity, outcomes and test -Teacher emphasis the assessment of learning	criteria -Students will get the information about learning by doing tests Students are divided to weak and good learners according to success in different tests	presented to students in the beginning with the process -Assessment as learning –towards life options The assessment is an integral part of the learning process	criteria from the beginning of the process Students will get the information about learning discussing with the teacher and peer students Students are aware that they learn differently and that every child can learn
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3.1 At the heart of the knowledge acquisition

According to Meriläinen and Piispanen (2013), in a Contextual-pedagogical approach towards learning, a special attention is paid to the growth of 21st Century CSPCK knowledge. The skills, context and pedagogic will have a crucial significance in all learning situations. Where traditional pedagogic and multidisciplinary approach to integration emphasizes pedagogy and curriculum as tools for creating learning situations, the transformational pedagogic connects the three knowledge areas together. The learning situations will be discovered in the heart of the expanded knowledge acquisition as you can see in Fig. 2.

Figure 2. Contextual – pedagogical approach to learning (Meriläinen & Piispanen, 2012.)

The child, the pedagogical expert (the teacher), the content expertise from the real life contexts, the society and the curriculum will settle in the heart of the Contextual – pedagogical approach towards learning –model. The planning begins from the premise of individual student and his/ her skills, knowledge, interests and enthusiasm (comparison to traditional planning where the planning is made to fit to the school constructions; timing, text books, classrooms, etc.). In this model, the teacher mirrors curriculum contents with the surrounding world and connects the curriculum contents to the real life phenomena. The real life phenomena studied at school will help students to understand and link the curriculum contents with the life outside of the school and develop 21st century civil skills blended to authentic learning situations. (Meriläinen and Piispanen 2013, 160-161.)

The teacher's role, according to Meriläinen and Piispanen (2012), is to be a pedagogical expert, who creates learning situations based on the 21st Century CSPCK framework i.e. identifies the individual needs of each student, designs creative, authentic learning tasks and supports multiple civil skills needed in real life. (Meriläinen, Piispanen & Valli 2013.)

In the Contextual-pedagogical approach towards learning, the essential change comparing with the traditional pedagogy concerns the students' role as knowledge constructors: the culture of working largely alone with individual learning tasks is transferred to a culture of collaboration, high levels of collegiality, team work, and dialogue as a way of action. (Meriläinen, Piispanen & Valli 2013.) Instead of just accomplishing the learning tasks, the students are directed to be active and self-piloting collaborative learners. This means a huge change in the traditional teacher – student –roles: the teacher will no more be the know-it-all -person, instead her/his role is to help students to address with information, to operate among the information and before anything, lighting the learning enthusiasm among the students. In this model, the teacher will see student's best potential and take risks to make that visible. (Meriläinen and Piispanen, 2013, 14)

It is essential to activate the students to work together so that the given tasks will support the 21st century civil skills to develop. (Kostiainen &

Rautiainen, 2011, 190). As Meriläinen, Piispanen and Valli (2013) highlights, the learning tasks should be closely connected to student's real lives, interesting, challenging and enable student's natural creativity and know-how to develop. It is outstandingly important that students have a possibility to act in roles, natural to learning tasks. That will motivate and help them to accomplish the tasks in the expected manner, similar to that in the authentic context.

Meriläinen and Piispanen (2013) states that in the contextual – pedagogical model of learning, the 21st century civil skills are not necessary the key objects of teaching, but their presence and use in different learning tasks will lay a solid foundation to deeper understanding, learning, knowing and creativity. (Hargreaves 2007, 223-224; Kumpulainen, Krokfors, Lipponen, Tissari, Hilppö, & Rajala.2011, 46; Sahlberg 2011, 4; Zhao 2011, 2-3). When planning a learning process and paying attention to the development of these skills with other two knowledge acquisition areas (CCK and PK) will make it possible to create learning environments and learning situations that will support the 21st century civil skills content knowledge to develop in a school context.

It is a central matter to pay attention to the students' individual needs in a Contextual- pedagogical approach towards learning. Transformational learning process enables diverse students to learn according to one's own best ability and to bring one's individual know-how visible. The paths toward set learning goals will be as unique as your students –the beforehand given goals and assessment criteria will guide students step by step towards the set goals. The paths will naturally become differentiated, never the less the learning has become true. When the curriculum contents are learned and experienced transdisciplinary in authentic learning conditions, students have possibilities to consider the given tasks multiple and visualize them in versatile ways. This will give learners an opportunity to emphasize individual learning styles and unique temperaments which are mostly seen as problems in our school system. The versatile examination of phenomena and the multiple choices of individual learning paths will create a possibility to learn and understand phenomena from student's individual premise in collaboration with others. (Meriläinen & Piispanen 2013, 19.)

4. CONTEXTUAL-PEDAGOGICAL LEARNING PROCESS

Let's look at the planning process closer. Where to begin, how to put emphasis on needed skills, what is the connection between subject contents and real life in practice, what means authentic learning environment? These are some of the questions that you as a teacher will have to pay attention to when moving from traditional pedagogic towards transformational pedagogical settings. Flipping the sight from society to curriculum puts emphasis of teaching curriculum contents to emphasis of learning real life phenomena and skills that we need in authentic learning environments and learning situations. The planning begins from the premise of individual student and his/ her skills, knowledge, interests and enthusiasm (Comparison to traditional planning where the planning is made to fit to the school constructions; timing, text books, classrooms, etc.) as you can see in Table 2. Blending 21st Century civil skills to study plan becomes natural when the school tasks begin to remain real life tasks as presented in Table 3.

Table 3. Contextual-pedagogical study plan in a nutshell (5th grade).

Phenomenon (authentic/ outside the curriculum/ learning environment)	Students role (authentic –rises from the phenomenon)	Task (authentic –supports 21st Century civil Skills to develop)
To plan a Summer Camp in a Ranch	Ranch owner / Camp director	To create an enthusiastic camp program, marketing plan, web & mobile pages and radio/ television commercial.

In this model, as Meriläinen and Piispanen (2012) states, the teacher reflects the curriculum contents up to the surrounding world and connects the curriculum contents to real life phenomena. This will help students to understand and link the curriculum contents with the life outside of the school. The curriculum contents act as tools for developing 21st century civil skills as explained in Figure 1. The 21st Century CSPCK-framework will focus on a variety of different knowledge areas to develop both skills and content understanding. The pedagogical knowledge has to meet the 21st century skills as well as the curriculum contents to be able to create learning situations, task and environments that will develop 21st century civil skills pedagogical content knowledge in a school context.

Table 4. presents an example of a learning task, that will fit into the 21st century CSPCK-framework and illustrates the Contextual pedagogical approach towards learning concretely. The task is planned for 5th grade students and the curriculum contents meet the 5th grade standards (Finnish National Core Curriculum for Basic Education 2004). (Meriläinen & Piispanen 2013, 167.)

Table 4. Contextual –pedagogical learning task

PHENOMENON: To plan a Summer Camp on the Ranch				
TASK: To create an enthusiastic camp program, marketing plan, web & mobile pages and radio/ television commercial				
CROSS CURRICULAR THEMES Media skills and communication, Participatory Citizenship and Entrepreneurship and Technology and the individual				
<p>Mother tongue and literature: INTERACTI ON SKILLS</p> <p>The pupil will learn skills of active listening and communication in various communication situations; they will feel encouraged to take part in discussions and will try to consider the recipients in their own communication.</p> <p>The pupil will learn to work with text environments in which words, illustrations, and sounds interact</p> <p>SKILLS IN PRODUCING TEXT</p> <p>The pupil will learn to create a variety of texts, both orally and in writing</p> <p>RELATIONS HIP WITH LANGUAGE LITERATUR</p>	<p>Biology and Geography</p> <p>The pupil will learn to move about in the natural environment and observe and investigate nature outdoors</p> <p>The pupil will learn to draw and interpret maps, and use statistics, diagrams, pictures, and electronic messages as source of geographic information</p>	<p>Music</p> <p>The pupil will build his/her creative relationship with music and its expressive possibilities, by means of composing</p>	<p>Arts</p> <p>The pupil will learn to evaluate their own and other's visual expression and working approaches, such as visual, content, and technical solutions, and to employ the key concepts of art.</p> <p>The pupil will work independently and as a community member in art projects</p>	<p>Mathematics</p> <p>The pupil will learn to understand that concepts form structures</p>

E, AND OTHER CULTURE The pupil will gain a basic knowledge of the media and utilize communicati ons media purposefully.				
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4.1 **Assessment**

According to Piispanen and Meriläinen (2013, 3054-3055), once we have defined what we want our students to learn, we need to determine how we will evaluate their learning at the end as well as assess their progress to find their way through the content. To be able to do that, you, as a teacher, need to know what assessment options are available and suitable for accomplishing that. You also need to consider how to construct or select an appropriate assessment from these options, how to get these assessments to yield good-quality information, how to interpret the information and help students to interpret it, and how to use the information yourself and help students (and sometimes others) to use it (Bookhart 2004,7). You also need to follow this cycle through the learning process to get the collected information used. Otherwise, as Bookhart (2004) states, the students’ time and yours are wasted. In Fig. 3, you can see the difference between the traditional and transformational planning processes in the perspective of a child and assessment.

Fig. 3. Individual learners and assessment in traditional and transformational planning processes. (Piispanen & Meriläinen, 2013)

The planning process is build up from several variables which join together more or less tight and with a little or lots of interaction between them. When you think of teaching and learning in primary school, the variables in the planning processes consist at least of six different variables as follow: a teacher, a child, a curriculum, learning tasks, learning environments and evaluation/ assessment. Traditionally, the teacher begins the learning process by seeking information from books and the curriculum. The learning contents and theme areas will rise up from the curriculum or from the books and text books. At its worst, when talking of assessment, the ready-made summative evaluation tests can be found behind the book and used as evaluation criteria of the learning process. The interaction between the process and child is slight if any. The child can be seen as a stably variable – the one who accomplish the given tasks without knowing where these tasks are guiding one, where they do come and how to accomplish them at ones best. In the end of the learning unit, as Beyer (1987) represents, the child will accomplish an exam, the test, which has been kept secret, is administered, and students fill in the answer in absolute quiet. The teacher watches carefully to make sure that no students refer to their notes or ask classmates for help. This common method of assessment is familiar to most students, teachers, parents, and administrators, but it fails to provide teachers or students with the information they need to promote deep understanding of the subject. Assessment can be seen as the information of learning where the student lacks possibility to show his best.

In contextual pedagogical learning process (transformational pedagogic), the child and his learning is the core activator in a planning process, where the assessment will be seen as learning itself. In the model of Contextual pedagogical approach to learning the assessing criteria will be visible and well known already at the beginning of the learning process. Assessing will act as a tool for guiding students through the learning path –the learning aims will come true through the learning tasks based on assessing criteria. This is, as Meriläinen & Piispanen (2012) states, particularly important in order that students will understand and recognize what are the learning expectations and how will the assessment come true. Beyer (1987) describes this supportive model of assessing in the following way: As students' progress through the unit, the teacher continually provides opportunities for them to think about their learning and to ask questions. She designs a performance task which requires students to show that they understand the concepts associated with the unit.

5. CONCLUSION

In the Contextual pedagogical approach to learning, pedagogical planning begins by paying attention to child's individuality, which directs choices related to both learning context and pedagogic. Phenomenon that relates to child's everyday life will rise to central position in planning and learning processes. These phenomena will be mirrored through the curriculum and created to enthusiastic learning processes raised from child's interests. When comparing these two models of learning (traditional/ transformational) there are several reversed issues throughout the process from planning to implement. One of the most significant difference lies on assessment and the role of assessment in learning process. In contextual pedagogical learning process assessing will act as a tool for guiding students through the learning path –the learning aims will come true through the learning tasks based on assessing criteria. This is, as Meriläinen & Piispanen (2012) states, particularly important in order that students will understand and recognize what are the learning expectations and how will the assessment come true. As to say, the aim of the assessment is to support learning also after the learning process. Each learning process is a journey of exploration to learning, recognizing skills and to utilize these skills.

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