IDentifEYE

D3.4 Didactic Methodology and Multimedia Instructions

Version 1.0 – 31/01/2015

Project	IDentifEYE	
Authors	CCS, EF	
Reviewer	COIN	

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Referenced Documents

ID	Reference	Title
1	2013-1-GR1-LEO05-13907	Project Proposal
2	2013-1-GR1-LEO05-13907	Evaluation Comments
3.	p.40	AR & Media Multimedia Instructions

Applicable Documents

ID	Reference	Title
1	FAVINOM QMS	Quality Management Procedures

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Executive Summary

The present document contains information regarding the didactic methodology and multimedia instructions related to the workshop execution.

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1. Introduction

1.1. Purpose of the D3.4 Didactic Methodology and Multimedia Instructions

The purposes of D3.4 Didactic Methodology and Multimedia Instructions are the following:

- To explain the methodological approach of the project regarding the workshop.
- To provide elaborate multimedia instructions to the workshop instructor.

1.2. Scope of the project

Children today are in danger on the Internet because of not understanding the relevance of data. They either too freely provide their own data and thus run the risk of identity theft or of an unwanted third party being able to target them, or they too easily believe the actuality of data provided by others and thus could become targeted by a third party who is disguised by a false identity. Internet is a great tool that offers youngsters many additional opportunities to their education, entertainment or even social life. Internet is nowadays thoroughly embedded in children's lives.

In order to identify the proper way to reach children it is important to look at the persons that children turn to for advice when something online troubles them. So, the best strategy to protect children is to train teachers that children already trust, to guide them through online activities. Considering that schools have the resources to reach all children, they should take the initiative training them. With the proper training of teachers, ideally, every child would have at least one skilled person to turn to (teacher of even peer).

To address these issues, in the current project we will utilise an augmented reality game and validated pedagogical approaches to empower teachers reach out to children and educate them about the dangers of the Internet and online identities.

1.3. Project Objectives

The primary objectives of this project are to:

- Create a new curriculum module in which teachers will empower a conscious, creative and critical stance by students as evolving responsible civilians [8-14 years] towards online media by means of training essential skills and providing essential knowledge.
- Benchmark effective new methodologies and pedagogical strategies as an essential component of the new curriculum module.
- Publish the new curriculum module both in a traditional form (print) and online together with didactic material and multimedia instructions so that European teachers can implement the new module by themselves.
- Create an international network to evaluate and help promote the new curriculum and function as a help centre for European teachers willing to implement the new module.

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The main products comprise:

- A curriculum (based on social psychology) for teachers to educate children on the dangers of being online: "Reflecting on identity by means of multiple viewpoints"
- A delivery methodology for teachers to reach out to children more effectively and educate them about matters that concern them
- The impact is expected to be considerable in terms of in-service training for teachers who today lack important skills.

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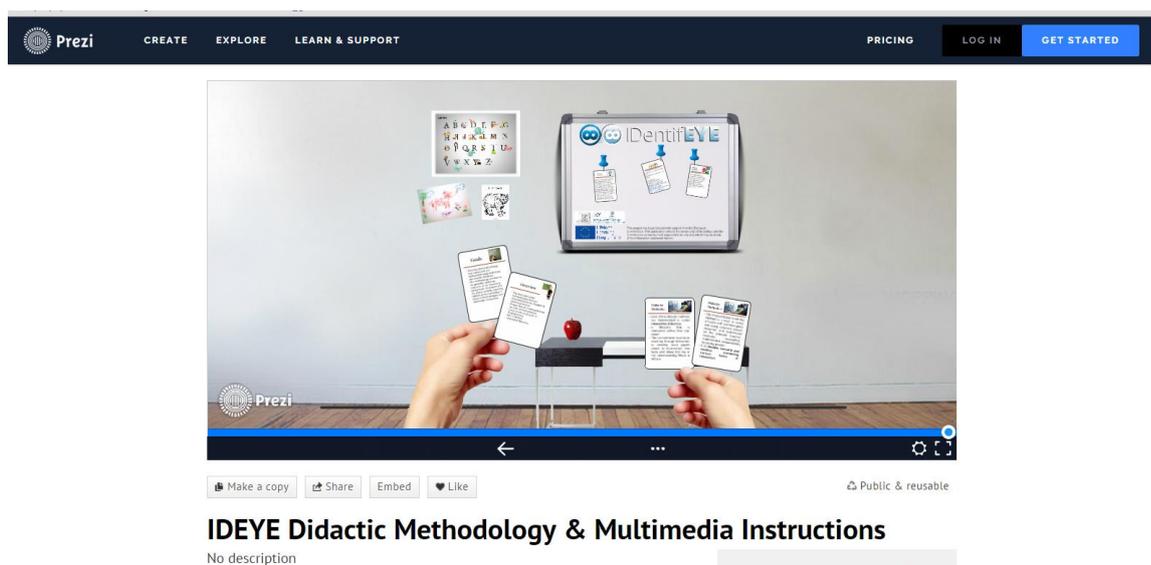| CCS, EF	Deliverable: D3.4
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2. Didactic Methodology and Multimedia Instructions

The didactical methodology was elaborated and perfected through workshops and experts' feedback. The present document provides to the potential workshop instructor all the necessary background information and the proper attitude regarding delivering the workshops. In the first section there will be analysed the instructional methodologies that support the workshop. The most prominent methodologies that are implemented in the IDentifEYE workshop include:

- Project-Based Learning Method (as part of Prophylactics)
- Good practices (as part of Prophylactics)
- BELS Method
- Interactive Didactics

The second part includes the complete set of multimedia instructions regarding the AR game as well as an example of use in the classroom environment. All the relevant AR components as well as further instructions about the AR game technical structure are annexed in the current report.

The current report will is addressed to the potential instructor of the workshop. A short presentation on the report in English can be found here: https://prezi.com/ojarmbslhv4v/ideye-didactic-methodology-multimedia-instructions/

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3. Didactic Methodology

Introduction

The overall aim of the IDentifEYE project is to enhance student online safety by empowering student online resilience. But, you will not instruct students. You will instruct teachers. The reason for this is scalability. In order to reach students in a scalable, structured way there are only two gateways: parents and teachers. Because teachers are organized and have a far larger reach than parents they are the ones you will deal with.

Teachers are not the easiest group to work with. They feel overburdened and underappreciated. And they have become cynical when it comes to innovations. Education researcher Dylan Wiliam (2011) writes: "Because teachers are bombarded with innovations, none of these innovations has time to take root, so nothing really changes. And worse, not only is there little or no real improvement in what happens in classrooms, but teachers get justifiably cynical about the constant barrage of innovations to which they are subjected."

Your task will be to find a way to win them over. What usually helps is to acknowledge that within the education system they are the most important factor when it comes to improving the quality of education. Teacher quality has the biggest impact on student performance. A good teacher at a bad school turns out better students than a bad teacher at a good school.

The IDentifEYE project will not revolutionize teaching. As Dylan Wiliam writes: "there haven't been any real breakthroughs in teaching for the last two thousand years. Teachers need professional development because the job of teaching is so difficult, so complex, that one lifetime is not enough to master it." The only thing the IDentifEYE project proposes is for teachers to try out a few new elements in their normal teaching. The project offers a menu card from which, hopefully, some items will be regularly used by teachers in their day-to-day teaching.

All items on the IDentifEYE menu card will have a positive impact on student online safety. And all will, at the same time, change teacher student relations for the better. They will help students be more open to feedback, more open to learning, more engaged, and more positively responsive while feeling co-responsible for their learning process and for their reaction to social processes around them. At the same time, the items will open new channels of communication between teachers and students, leading to a more personal trust relationship. As a result, the elements that teachers will encounter in this workshop will make their job in the class room easier and more interesting. And they will make their students more resilient, especially regarding new technologies and online experiences. This resilience will enhance student online safety. That's what's in it for teachers.

Good practices

So, how does the project achieve this? It introduces new elements to teachers on four levels: new topics – (online) identities and a critical view on globalized society – interactive didactics, elements of prophylactics and introductions to new technologies and in particular to Augmented Reality. These elements are customized for two different target groups: teachers teaching

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students aged 8-11 and teachers teaching students aged 12 – 14. And it is you who will introduce these teachers to all of this.

What you will present to teachers in this workshop are sets of good practices on all four levels. These good practices are elements that can be implemented by teachers in their lessons straight away.

You will need background information in order to be able to present these good practices, and lots of it. This background information you will find in this manual.

Workshop sessions

How does the workshop concretely look like? The workshop consists of six sessions, five of which will be conducted by you.

In the first two sessions you will present good practices concerning identities, interactive didactics and prophylactics for teachers teaching 8 – 11 year olds and identities, society, interactive didactics and prophylactics for teachers teaching 12 – 14 year olds.

In session three you will present new technology good practices and an educational Augmented Reality game that was the starting point for creating this workshop. The game comes in two versions: for students aged 8 – 11 years about data sharing and online identities and for students aged 12 – 14 year about communication in the class room. At the end of session three you will ask teachers to start creating their own lesson plan, involving workshop good practices from all four levels. In session four the participants will finalize their lesson plans.

The creation of lessons plans is the essence of the workshop. It is a first step to get teachers to reflect on how to concretely introduce and test elements from all four levels into their regular, curricular lessons.

The fifth part of the workshop does not involve you. During this session teachers implement their individual lesson plans in their own class rooms. They are to experience the effect of the new elements that they decided to test out. During the pilot phase of the project this was the moment that teachers saw the effect of the good practices that they had chosen for their own students. It was the moment that many teachers felt quite insecure, or at least unsure of what to expect. And it was the moment in which they were surprised by the positive response by their students. In none of the pilot sessions teachers experienced a negative reaction in their classes.

In the sixth part of the workshop, session five, you meet up with the teacher participants again to evaluate what went well and what did not.

Workshop method

The structure of the sessions is loosely based on a method called Brain Essential Learning Steps. The creators of the B.E.L.S. method – Brain Essential Learning Steps – define it as "a consistent thematic approach to teach children curricular content retained through interpretation and application".

There are four Brain Essential Learning Steps:
- B.E.L.S. 1: Providing an introduction on a subject;

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- B.E.L.S. 2: Brainstorm and list ideas connected to the subject;
- B.E.L.S. 3: Create a plan for action on the subject;
- B.E.L.S. 4: Implement the plan for action.

The IDentifEYE project has added a fifth step to these four: Evaluation.

The following lifelong learning skills are developed by means of B.E.L.S.:
- Problem Solving;
- Risk Taking;
- Cooperative Learning;
- Creativity;
- Cognitive Responsibility Systems.

Teacher challenges

Your role during the workshop is crucial. You are the one who will be confronted with teachers complaining about them having to do yet another chore, while their work schedule is already stretched to the maximum. You will meet a sceptical attitude by teachers about yet another innovative workshop. And you will hear the sighs when teachers hear that they will have to evaluate their implemented lessons because that means yet another few hours of additional work in the evening.

Nevertheless, by showing teachers what is in it for them you can win them over. Many teachers struggle with the use of new technology in the class room. This is not so much because they are too ignorant or too conservative but rather because they feel that students in their class room are much better with new technology. They are afraid they will lose authority when touching upon the subject. Also, quite a few teachers have a trust issue with their students. They believe that if they allow technology to be used in the class room students will use it to play games or to communicate with their friends, rather than use it for their assigned task. By means of the IDentifEYE workshop teachers can take a relative safe first or next step, because "it's only an experiment".

Many teachers also struggle with their current top-down didactics. The downside of this didactics is that teachers know what they teach but only can find out what their students have learned when the students are tested. The test results are important not just for the future of the students but also for the future of the teachers: they are being evaluated on the success rate of their students. Unfortunately when the test results come out it is too late to improve the success rate – the next subject already awaits. The IDentifEYE workshop gives teacher an excuse to experiment with interactive didactics that allows for testing during the lessons.

A third major teacher issue is where to draw the line between professional and private. How does one react to (cyber-)bullying? How does one deal with students who have serious problems at home? Does one need to be available for students in the evenings and during the weekends too? By introducing elements of prophylactics teachers get tools to deal with these types of issues too.

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Student online safety

How is this exactly related to student online safety? The good practices that teachers will encounter during the IDentifEYE workshop do not just impact them but will also impact their students. The impact on their students is that student resilience is being empowered. The identity related workshop elements are to make them define themselves in a less all-or-nothing fashion so that they will become less vulnerable for identity meltdowns as a result of online attacks or experiences. The didactics and prophylactics will help them to be embedded in a more trusted environment so that they will always have someone to turn to when things go wrong online. And the new technology elements open up concrete communication channels with their teachers about online experiences.

The idea that online safety can be increased by student empowerment is not new. The research EU Kids Online II brought to the forefront that the most effective instrument to promote youngster safety online is talking about online experiences with an adult. It also showed that youngsters who are protected by filters and are forbidden by adults to experiment online seldom encounter stressful situations online but when they do the impact of these situations on them may be immense. Youngsters who experiment a lot, on the other hand, become resilient. They encounter a lot of stressful online situations but the impact of these situations is much less severe.

The project does not only aim to stimulate better teacher student contacts and teacher student contacts on online experiences. The project also aims to improve peer contact amongst youngsters by means of the project good practices. A study by the University of Sussex found that even one single close friendship empowers resilience among low-income youngsters.

3.1.1. Learning impact of Workshop elements

In order to present the concrete workshop impact on all three levels – impact on student online safety, teacher impact and student impact - it is time to introduce the workshop elements individually.

The topic of identity consists of two components: "identity labels" for all age groups and "learning types" for the age group 8-11. Identity labels refer to the way we define ourselves. All of us create a self-definition of whom we are when we introduce ourselves to someone or present ourselves in an online profile. In these self-definitions we use labels such as "smart" or "pretty" as in "I'm smart" or "I'm pretty". The type of labels we use is important for our openness to others – or defensiveness.

While youngsters from the age of 11 and up start to reflect on general rules they encounter, younger children are mostly focused on their direct surroundings and on themselves. For these younger children, therefore, there is a module on learning types. The way they think they can achieve good results at school affects their resilience and ability to reflect on themselves.

The older children of the IDentifEYE target group are served a module on the society they live in order to trigger their reflections on the rules that they follow and the situations they encounter that are the consequence of our current globalization and ultra-consumption.

These modules are followed-up by modules on interactive didactics, prophylactics, new technology and the Augmented Reality game in two age-specific versions.

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Table 1: Impact tables

MODULE	IMPACT ON INTERNET SAFETY	IMPACT ON TEACHERS	IMPACT ON STUDENTS
IDENTITY LABELS	Less all-or-nothing reactions to online challenges, less prone to being one-dimensionally profiled.	More positively responsive students.	More open to feedback, more open to learning.
LEARNING TYPES	Less resignation when meeting online challenges, less prone to being one-dimensionally profiled.	More positively responsive students.	More engaged, more positively responsive to challenges.
SOCIETY	More critical attitude online, better skills to deal with "otherness" online.	More critically responsive students, more tolerant students.	More critical attitude, more civil skills.
DIDACTICS	Having an adult to communicate with about online experiences is the most effective instrument to enhance student online safety.	Focus on student learning rather than on teaching, more frequent and meaningful communication – both teacher/ student and student/ student, formative assessments during the lessons. More student engagement and deeper trust relationships.	Co-responsibility for one's learning process, more engagement. More personal teacher/ student contact.
PROPHYLACTICS 8-11	Having an adult to communicate with about online experiences is the most effective instrument to enhance online student safety. Children may enter the online world	Building conscious relation and sense of trust in the classroom, enlarging teacher's abilities to communicate with students, more use of interactive methods.	Closer relations with their teacher, enlarged risk awareness, a better communication with their peers, a greater involvement in their studying.

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MODULE	IMPACT ON INTERNET SAFETY	IMPACT ON TEACHERS	IMPACT ON STUDENTS
	more consciously and safely when they can ask an adult for help. Having a peer friend is essential to overcome challenges, especially for more vulnerable students.		
PROPHYLACTICS 12-14	Having an adult to communicate with about online experiences is the most effective instrument to enhance online student safety.	Deeper trust relationships, better teacher responsiveness towards interactivity.	Deeper embedding in one's environment, improving adult – youngster and peer-to-peer communication and stimulating engagement. More personal teacher/ student contact.
NEW TECH	Having an adult to communicate with about online experiences is the most effective instrument to enhance student online safety.	Less teacher anxiety, more openness to new education technology. A deeper trust relationship with students.	Getting communication options to talk about new technology and online experiences with teachers.
AR GAME (8-11)	Provoking reflections on data sharing, online identities and online safety.	Being a moderator facilitating peer-to-peer communication.	Getting communication options to talk about online experiences peer-to-peer. Temporary higher engagement, higher concentration levels, higher trust levels.
AR GAME (12-14)	Provoking discussion on teacher – student	Being a moderator facilitating peer-to-peer communication	Getting communication options to talk about

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MODULE	IMPACT ON INTERNET SAFETY	IMPACT ON TEACHERS	IMPACT ON STUDENTS
	communications as a starting point for teachers becoming suitable adult to communicate about online experiences.	while hearing student communication preferences.	didactics. Co-responsibility for one's learning process. Temporary higher engagement, higher concentration levels, higher trust levels.

The impact of the workshop methodology, B.E.L.S., is framed in the following table:

MODULE	IMPACT ON INTERNET SAFETY	IMPACT ON TEACHERS	IMPACT ON STUDENTS
B.E.L.S.	Facilitates relevant lessons on online identities, data sharing and online safety.	New skill set to create a lesson plan with colleagues or with students.	Co-responsibility for one's learning process, more engagement.

Workshop aim and success criteria

The aim of the workshop is to positively impact teachers, students and student online safety. All the workshop elements are designed to make a positive impact on all three levels as the table above illustrates.

The success criteria for this workshop are:
- In the evaluation form teachers state that during their implementation lesson they made a positive impact on their teaching, their students and student online safety by implementing some of the workshop good practices, especially the AR game.

- In the evaluation form teachers indicate that there are workshop good practices that they will use again.

- During a follow-up meeting a few months after the workshop implementation it appears that teachers are still using some of the workshop good practices. This does not mean that teachers admit to this – the good practices could have been so integrated already in their day-to-day teaching that they forgot about the origin and consider these good practices as elements that were always there. This would be the best possible outcome.

- During this follow-up meeting it occurs that teachers have tried out workshop good practices after the workshop that they did not try out in their implementation lesson.

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- During the evaluation session together with the teacher you draw up a list of Best Practices and lessons learned – and mail this list to the project partners (specifically to Mr. Onno Hansen: onno.hansen@gmail.com).

- Project information.

3.2. Interactive didactics

The dominant didactics currently implemented at the majority of schools in the European Union still is the transmission model, in which a teacher teaches top-down and students try to understand what the teacher teaches. The transmission model rests on the assumption that knowledge is to be transmitted and learnt, that understanding will develop later, and that clarity of exposition accompanied by rewards for patient reception are the essentials of good teaching" (Black & Wiliam, 1998).

After having analyzed the outcomes of a vast body of research education researchers and innovators Black & Wiliam boldly state that is a "wealth of evidence that this transmission model does not work, even by its own criteria". According to them "there is little, or no, worthwhile learning".

Black & Wiliam propose an alternative didactics: a didactics that is interactive rather than top-down: "the commitment must be to teaching through interaction to develop each pupil's power to incorporate new facts and ideas into his or her understanding."

This kind of didactics is more effective when it comes to the most important curricular point of reference: the exams results. This, according to Wiliam (2011), holds good for all students but interactive didactics is "most beneficial for lower-achieving students" and for "students from different ethnic backgrounds".

Interactive didactics rests on the following premises:
- Students are co-responsible for their learning.
- In order to achieve this co-responsibility students should also be co-responsible for the lessons. The students' role should not be limited to "playing a game of "guess what's in the teacher's head"" (Wiliam, 2011).
- No longer is the teaching of the teacher crucial. Teachers are to facilitate effective learning environments.
- Teachers should clearly express the learning objectives and the criteria for success for each lesson. Students need to know what is expected of them to take their responsibility.
- Teachers have to open up more channels of communication with their students. Wiliam (2011) assures us: "When teachers open up the channels of communication with the students, the students will use them."
- Teachers no longer postpone their actual checking whether students have understood the lessons until during the exams. Exams grading is a closure of a subject after which no additional learning takes place, not even by those who failed the exams. Instead, teachers need to permanently check interactively whether all individual students understand the lesson's content. If one or more students have lost track of what the lesson is about, the teacher or peers should give more attention to this student on this subject. Interactivity is the constant sensitivity by a teacher to individual student learning. The essence of

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interactive checking is that teachers accept that they do not know what students have learned until they check.

- Because teachers allow for a far greater student involvement engagement by all students becomes more possible.

Wiliam defines his version of interactive didactics, which he labels Formative Assessment, as follows: "An assessment functions formatively to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have made in absence of that evidence."

Formative Assessment didactics are not easy to implement. It will take time and a step-by-step approach. Wiliam explains: "When teachers try to change more than two or three things about their teaching at the same time, the typical result is that their teaching deteriorates and they go back to doing what they were doing before. My advice is that each teacher chooses one or two of the techniques ... and tries them out in the classroom. If they appear to be effective, then the goal should be to practice them until they become second nature."

This is why the IDentifEYE workshop does not propose to radically change teacher day-to-day teaching but rather tries out a few items from a larger menu card of good practices.

It is advisable that teachers participating in the IDentifEYE workshop start to create teacher learning communities (TLCs). We suggest that the IDentifEYE workshop is not treated as a one off exercise but will function as the starting-point for monthly teacher meetings on didactics. In line with Wiliam's prescription we advise a group size of eight to twelve teachers. "The idea of the TLC is that each participant comes to the meeting with their personal professional development plan, and gets support of the group in achieving this."

Good Practices

In his book Formative Assessment Embedded Wiliam describes quite a few concrete good practices. Within the framework of the IDentifEYE pilot workshops European teachers have tested out a selection of them. Below you'll find the good practices that were evaluated the best:

- Diagnostic questions
  - An important instrument to check whether you are understood in the class room is the instrument of diagnostic questions. These are "questions that provide a window into student's thinking". They are not easy to generate but reading Wiliam's book Embedded Formative Assessment (2011) will support you. Rule of thumb for those questions is: "What makes a question useful as a diagnostic question ... is that it must be very unlikely that the student gets the correct answer for the wrong reason." And, the question should be constructed in such a way that "the incorrect answers should be *interpretable*." The underlying assumption should be: "it is better to assume that students do not know something when they do than it is to assume they do know something when they don't." The best time to ask these questions is "at hinge points in lessons". These are points "at which the teacher checks whether the class is ready to move on".

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o To save time create multiple choice diagnostic question, preferably only with an A and a B answer. Hand out two colors of Post-Its before the lesson: for instance a blue for A and a yellow for B. Now if the teacher asks a diagnostic question, students are to raise one of the two colors. If more than 80% of the students shows the right color, the teacher can move on. Optionally the teacher could ask a random student why they picked the answer. If the students provides the right reasoning the lesson can move on. If less than 80% of the students show the right color the teacher should ask a student with the right answer to provide their reasoning. If the student provides the right reasoning the teacher should ask the students who had another color whether they understand what the first student had said and whether they agree with it. If yes, the teacher can go to the next subject. If not, or if a student with the right color provides a faulty motivation, the teacher knows they should stick to the subject still.

- Red/ green Post-Its. Each student receives a red and a green Post-It card. As long as a student understands the lesson they have the green Post-It on top. The moment they lose track they put the red Post-It on top. Since all other students at that moment still have a green Post-It on top all show that they still understand the lesson. Thus, the teacher can ask any of them to explain to their colleague showing the red color what the lesson is about at that point. Wiliam explains: ""This technique neatly encapsulates two key components of effective formative assessment – engagement and contingency. If a student is showing ... green, he can be called upon to explain the work to someone else, which requires the student to be monitoring their own learning and, therefore, engaged. And the flow of information from the students about the pace of instruction helps the teacher make adjustments to better meet the students' learning needs."

- Random selection. One of the few certainties teachers have in the class room is that always a few students are willing to answer teacher questions. Most often these are time and again the same students who show their eagerness to answer a teacher question by raising their hands. While these students and their replies, that are often correct, give the teacher a comfortable feeling that they can move on, in reality they only provide a false sense of interactivity. While a part of the students is engaged the majority is not. They have lost track but do not show that they have lost track because they feel that they are not asked anything. This situation seems safe for all involved: the teacher can move on without too much loss of time, the students raising their hands get teacher appreciation and confirm also that they are star students while the students not raising their hands do not have to endure public humiliation that follows not knowing the answer to a question. But the students not raising their hands now also reinforce their feeling of being second grade students by not answering and not reacting. Both "good" students and "bad" students thus are reinforced in their self-definitions. As was described in the background to session 1 section tighter defined identity labels have a negative effect on student ability to learn or to hear feedback. This is a very undesirable effect of only reacting to students who raise their hands. A way to end this situation is to write all student names down on identical sticks, like from ice creams, and have the teacher draw out one of the sticks when they have a question. At first this is very uncomfortable for all involved. The teacher might find out that a randomly chosen student does not know the answer – which means time loss. A "good" student is not always chosen and therefore has far less opportunities to shine. Worse even, a "good" student might be selected randomly at the rare moment

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that they do not know the answer to a question – which means a dent in their self-definition. And "bad" students cannot hide anymore: there is a looming risk that their stick will be drawn. Nevertheless, it makes sense to start drawing sticks – it challenges student self-definitions and teacher prejudices and engages all students. After a while this will have a positive effect on exams results.

Further reading:
- Paul Black & Dylan Wiliam – Inside the black box (1998)
- Dylan Wiliam – Assessment for learning: why, what and how (2009)
- Dylan Wiliam – Embedded formative assessment (2011)

3.3. Prophylactics

A Positive Education – raising awareness in the teacher-student relationship

The Gdansk Addiction Prevention Centre team's collaboration with schools and organisations in Gdansk led to the conclusion that preventive campaigns should take the young peoples' needs into consideration. Hence, other areas, apart from school activities ought to be taken into account i.e. family issues, the local environment, and online activities. In contrast, the 'adults know best' approach to the campaign should be avoided.

The most effective campaigns are, in our opinion, those addressing the subjectivity of the student; giving an opportunity to develop, decide, and participate, as well as raising social awareness and responsibility in order to enhance social skills within a safe environment.

The implementation of these actions is only possible if adults act not only as partners in the dialogue and guides, but also as demanding teachers.

One of the recommended methods of implementing the above mentioned schemes, currently used at the Gdansk Addiction Prevention Centre and selected schools in Gdansk, is the **Project-Based Learning Method**.

A GOOD PROJECT ALLOWS YOUTH TO BECOME INVOLVED IN ACTIONS AND SITUATIONS PREVIOUSLY ATTRIBUTED TO ADULTS, THUS GIVING YOUTH A CHANCE TO GAIN SPECIFIC SKILLS NEEDED IN ADULTHOOD.

3.3.1. What is the Project-Based Learning Method?

The Project-Based Learning Method is a task or series of tasks with common goals and using coherent content designed and coordinated by the educator (teacher, instructor, counsellor), implemented independently by young people. It is flexible, versatile and enables combining various forms of interaction. The stages of implementation of the Project-Based Learning Method are based on a simple scheme that uses the intuitive logistics processes. The project, seen as an educational process, gives an opportunity to prepare young people to take on social roles.

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This method is derived from didactics and is effectively used in activities aimed at self-development, as well as in prevention and correction of behavioural disorders.

According to Krzysztof Ostaszewski, the Project-Based Learning Method, as a prophylactic factor, carries the basics of positive prevention i.e.:

• strengthening the skills and the development of social competences

• assuming the existence of protective factors of an individual, within a family as well as external ones

• seeking to balance the influence of risk factors (considering their existence but not focusing on eliminating them)

• using a positive approach

How to implement the project?

The aims of the project are the following: reinforcing protective factors (e.g. developing social skills, developing interests, building positive relationships and becoming involved in constructive activities, emphasising values, etc.), correcting unwanted behaviour.

PREVENTIVE FACTORS CONSTITUTE A CERTAIN BUFFER REDUCING THE EFFECT OF RISK FACTORS AND MODIFY (REDUCE) THEIR IMPACT.

The Project–Based Learning Method is interactive!

Tobler and Stratton (1997), and Tobler (2000) indicate that the key element of effective prevention programs are **interactive methods**: the teacher initiates the process of interaction - creates a task specific situation in which a young man discusses, plans, communicates with others, cooperates, verifies the skills, makes decisions, etc.

The project as a method of social work
- The project may incorporate a vast array of resources and themes (e.g. a *Youth Club prepares contests for children from the day care centres).*
- The project involves both, people who are in need, and people willing to give (e.g. *children take care of the disabled / young people become volunteers*)
- The project works towards a common goal and develops new goals as well (e.g. through a *collaboration between various organizations*)
- Whole families may be involved in the implementation of the project

Types of projects

1. Group projects: an experience for an entire group.

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2. Individual projects: a specific experience for a particular child.

Roles in the project

1. Adult: coordinator, trainer, project-partner, companion, student, expert, etc.

2. Child: partner, guardian, teacher, initiator, coordinator, leader, announcer, planner, buyer, a PR specialist, etc.

By assuming these roles, every project participant has the opportunity to gain experience and important social skills!

Stages of implementation

1. Diagnosis of the current needs of the group
- What difficulties have the children been facing recently?
- What are they unable to do?
- Which of their behaviours are disturbing, destructive?
- What do they like, what do they refuse to do?
- What influences them and what does not?
- What are they keen on?
- What questions do they ask?
- What is unknown to them?
- What do they enjoy?
- What issues are they currently interested in?
- What do they do spontaneously?
- What do they offer, what do they ask for?
- What surprises you in their behaviour?
- What are the underlying problems and needs of these "signals"?

2. Long-term diagnosis - key questions
- What future do you want for your protégés?
- Who are they going to be in the future?
- What are the social roles they play in the family, at work, in the community?
- How do they behave, refer to others, fulfil their duties?
- How are they perceived by others?
- What do the children need, to make this vision of the future possible?
- In what situations children can gain the knowledge, skills and abilities they need?
- What experiences do they need?

3. Initiating the project
- The adults attitude: faith in children, enthusiasm and commitment

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- Showing children what may change as a result of initiatives taken by them
- It ought to be a real, socially useful activity
- Preparation – preliminary steps (*distribution of tasks, selecting coordinators, scheduling, communication methods*).
- A respected and significant person (educator, volunteer, priest, manager...) gives meaning to an event, a situation, tells the children what needs to be prepared, asks the children how to do it? (e.g. we want to make a music video, how should it look like and how can we do it?)
- The message should contain an element of uniqueness and mystery
- Adults ask the kids for their help
- Openness to children's ideas, affirming their belief that it is a good initiative
- Passing the responsibility for the activities and situations on to the children

4. Implementation of activities
- Establishing the group's resources – assessing the strengths of group members and their willingness to take part in certain activities
- Cooperating with the community - checking on whom you can count (*the people, institutions and organizations*).
- Encouraging the project participants - by supporting, motivating, convincing.
- Resolving conflicts (*being a negotiator*).
- Motivating further actions (*support new ideas, do not limit the kids!*)
- Adults supervise the progress, provide assistance (*you are important for children*)

5. Summary - assessment of the activity effects, conclusions.
- Summarizing every activity with the children (e.g. What did you manage to do? How do you feel about it?)
- Appreciating the group and individual participants
- Building a positive identity (e.g. I am a person that managed to ...; We are a group that managed to... .)
- External presentation of the project results!
- Talking about future plans

What else you need to know while using the Project-Based Learning Method?

Characteristics of a good project:
- Referring to realistic, everyday situations for young people – applying them in practice
- An interesting and socially useful purpose
- Co-operation and an open approach
- Giving freedom to leaders but also motivating less active participants
- Supporting participants
- Acknowledging the participants' contribution
- Meeting deadlines on every stage of the project
- Transparent task assigning,
- Developing a good plan, including objectives, working methods, deadlines
- Creating space for individual and team work

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- Involving experts (specialists in various fields),
- External presentation of the results of the project

The SMART analysis – a method of goal setting

The SMART analysis helps to set proper and feasible goals, which in turn increases the chance of achieving them. It requires a thorough analysis and consequently gives the participants a great deal of satisfaction, as the results are clearly measurable.

Specific – the goal should be easy to understand and clear, rather than vague and open to interpretation.

Measurable - the goal must be measurable in order to determine whether it has been achieved.

Attractive - the goal should be attractive, its achievement should require effort and work, the goal cannot be a routine.

Realistic – for a goal to be measurable, it ought to be feasible and realistic for the participants, as such goals are motivating.

Time-related - to achieve the goal it is important to determine the time frame of every stage of the project.

Unlike a process, the project is carried out once and every project has a definite start and end date (however, it does not mean that these dates cannot be changed - in practice it happens quite often).

Benefits of the Project-Based Learning Method
- Helps the children with behavioural problems.
- Prepares for carrying out social roles in the society:
    - Gaining social skills
    - Gaining experience in performing social roles.
- Children can work within their community and influence it, they can play a GOOD role.
- The implementation of a project changes the functioning model of the facilities involved.
- Integration of the community due to common goals and values:
    - Reorganising work schemes, a flexible approach, creativity, acknowledging the changing needs of children, cooperation with the community,
    - Changing the traditional role of educators and teachers - towards the role of instructors, animators, partners, mentors, etc.

Difficulties in the Project-Based Learning Method
- De-motivation - sustaining the dynamics of the project (e.g. poor time management).
- Loss of individual participants.
- Routine projects.
- Deciding on the degree of involvement of adults.
- Projects as part of the annual work plan.

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The 3 principles of working with children and youth

1. Good replaces evil.

Focusing children's energy on performing tasks and socially useful activities that build their self-esteem, helps to eliminate behavioural problems..

2. Real life.

Developing social skills takes place through the tasks carried out in the natural environment of the child. This contributes to a real change in the relationship of the child and the society.

3. Pay It Forward.

Children use the competences they have developed for the benefit of others.

Competences

Every project, regardless of its nature, may develop a "package" of competencies and skills such as:

- Interpersonal communication
- Co-operation, teamwork
- Creativity
- Conflict management
- Time management
- Analysing the actions taken
- Gaining allies
- Formulating problems
- Using different sources of information
- Formulating and expressing opinion
- Active listening
- Group decision-making
- Creative thinking
- Setting goals
- Self-assessment of work
- Public presentation

The project may relate to a particular person (protégé) and take into account their individual needs, deficits, interests and talents.

REMEMBER! The project is just an excuse – it will not replace conscious educational work based on:

• dialogue (*individual interviews and group interviews*),

• VALUES,

• building relationships,

• setting requirements and giving support,

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• intervening (*e.g. in a situation of violating the norms*),

• building confidence in young people, appealing to their needs,

• conducting daily activities - you can include them in the project as well,

• creating a group rapport, etc.[1]

3.3.2. Good practices 8-11- The Project-Based Learning Method

How to talk? Lessons based on The Project-Based Learning Method:

Drawing upon the experience of experts working with the youth, we would like to suggest a good practice in working with children in the area of communication.

The group between the ages of 8 and 11 is known as the younger school age. During this stage children experience rapid changes, both in their physical and mental development. Starting and continuing education at school is a huge step for children and their parents, as it means changing the dominant form of activity. What has been dedicated to fun in the previous stage, is now being increasingly replaced by learning (at school). The child learns to solve problems, is being evaluated, must meet different requirements and accept responsibilities; hence the two stages differ significantly. Learning at school places certain requirements upon the child, nevertheless it also helps in the mental development (J. Strelau: Podstawy Psychologii. P. 235).

The school-age children's observations are more accurate than those of preschool age, however with more complex tasks there are still signs of difficulty with the analysis and synthesis of data; therefore it is important to take this notion into account when choosing topics for conversation. Children this age often still live in the 'fairy tale' world, which means that in many cases they are not able to imagine the implications and consequences of their behaviour. It is not without reason that the sincerity of a child is the most brutal and often painful one, especially in peer relations. We often hear statements such as: you are fat, you smell bad, etc., nevertheless there is no intention of harming the listener, it is just a statement of fact. Therefore, it is important to start interacting at such a young age, so that certain behaviours are not reinforced or embedded and that adults can begin to model positive attitudes. Before presenting the proposed working methods, it is advisable to learn with whom we work with, based on the emotional development, keeping in mind that an 8-year-old is at its beginning, and the 11-year-old is slowly entering maturation:

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[1] **FURTHER READING**

Examples of activities that use elements of the Project-Based Learning Method:

1. The streetworking program "ULICA" run by the Gdansk Addiction Prevention Centre - www.gcpu.pl

2. Environmental Prevention Society "Mrowisko" - www.mrowisko.org.pl

3. Youth Club Association 'St. Philip Neri in Ruda Slaska' - www.nereusz.pl

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General characteristics of the period

In this age, increasingly emotional reactions are accompanied by an intellectual assessment, e.g. the child begins to understand why he/she is getting angry or laughing, develops a skill of self-control of the feelings. Moreover, the manifestation of emotions is more durable. Furthermore, the ability of experiencing longer lasting feelings and the disappearance of sudden outbursts of anger is also shaping.

Communication with parents

Feelings are still predominantly linked with family life, wherein the mother is traditionally considered to be the person to whom the child is most closely emotionally attached. She is the parent the child spends practically the most efficient time with, the one giving support in the emotional life, and the one who is trying to understand the child.

Contacts with peers

A need to live in harmony with a group of peers is growing. The group's well-being is increasingly important, as well as loyalty, sacrifice, acceptance of the group's interests and standards. The group members' opinion starts to play a key role and the process of learning to interact is developing.

Values

The child begins to recognize the values and norms of the group, adheres to the principles and learns to perform duties within the group.

When it comes to relations with peers it is worth remembering that an 8-year-old has colleagues and IS a colleague, but an 11-year-old already has friends and IS a friend. During this period the teacher naturally may become an authority and a role model.

The proposed good practice is one of the methods that can be used to start a dialogue and in my opinion has at least two advantages.

Firstly, it can stimulate young people to look at themselves and learn skills that in the future may prove crucial in their professional, personal and social life.

Secondly, the ability of conversation / dialogue acquired at an early age would result in greater life resourcefulness in conflict situations, and thus may lead to a potential reduction of stress and frustration. The preventive approach should result in a reduction of risk factors that could cause, for example, a will to try psychoactive substances.

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While deciding to initiate the dialogue and to use the proposed good practice, you may use the prophylactic approach based on the Project-Based Learning Method, which draws from personal experiences of professionals who work with youth on a daily basis.

The proposed stages of implementation and preparation:

1. Diagnosis of the groups' current needs

If you decide to diagnose the current needs of the group, try to answer a few questions, which are a mini-diagnosis of the group you work with. While looking for an answer, use individual interviews, group discussions, observation and suggestions from other people you work with.

The questions and the diagnosed areas are the same for all children between the ages of 8 and 11.

Examples of areas to be checked may include (keeping to the topic of Dialogue):
- What are the difficulties young people lately experience?
- What are they not able to do?
- What seems to be disturbing, destructive about their behaviour?
- What works and what does not work?
- What kind of activities do they willingly take part in?
- What questions do they ask?
- What are they not aware of and do not understand?
- What issues are they currently interested in?
- What do they do spontaneously?
- What are they proposing, what do they ask for?
- What surprises you in their behaviour?
- **What are the underlying problems and needs of these "signals"?**

2. Long-term diagnosis: key questions

When thinking about prevention, consider whether it is worth to ask yourself a few questions e.g.: What do your mentees need to learn? What skills should they acquire? Who are they supposed to be in the future? When looking ahead at working with young people during a three year period of middle school, one might begin the "process of change", nevertheless it is worth remembering that such a process needs to be monitored and watched over.

Questions and areas to check in the diagnosis are the same for all children between 8 and 11 years old.

Examples of questions that can help in thinking about the long-term operation ought to include:
- What kind of future do you want for your mentees?
- Who are they going to be in a few years' time?
- What are the social roles they play in the family, at work, in their community?
- How do they behave, relate to others, cope with their responsibilities?

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- How are they perceived by others?
- What do the children need, to make this vision of the future possible?
- In what situations can the children gain the knowledge, the skills and competencies they need?
- What experience do they need?

3. Initiation

After answering the above mentioned questions and deciding to start a project in this form, you initiate a phase during which, together with the children, you define the subject matter, e.g.: How to talk to each other? What is dialogue? How to be a friend / colleague? (the theme is the result of a mini – diagnosis). It is worth to save enough time for conversations and discussions, so that everyone can speak and understand the topic/issue you will deal with.

Do not rush. The more time you spend on the discussion, the less resistance due to ignorance and reluctance there will be later. Give the youth initiative, do not impose your ideas, resolve only to making suggestions. Assume that there are no bad solutions, they only need to be checked and possibly changed, and the decision is to be made by the whole group.

At this stage it is necessary to pay attention to the age, the possibility of perception and the understanding of the topics to be covered by the children, as well as to remember the key differences between 8-year-olds and 11-year-olds.

At this stage, the following issues are worth emphasising:
- The attitude of an adult: faith in children, enthusiasm and commitment
- Showing the youth, what may change as a result of initiatives taken by them
- It must be a real, socially useful activity
- Preparation – setting specific stages (task delegation, the appearance of coordinators, scheduling, communication methods)
- A respected and significant person (educator, volunteer, priest, manager...) gives meaning to an event, a situation, tells the children what needs to be prepared, asks the children how to do it? (e.g. we want to make a music video, how should it look like and how can we do it?)
- The message should contain an element of uniqueness and mystery
- Openness to children's ideas, affirming their belief that it is a good initiative
- Passing the responsibility for the activities and situations on to the children

4. Implementation

It is worth remembering to be a wise adult. Contrary to the stereotypical opinion, there are few people on whom the youth can rely on and be understood. It is a developmental period in which the teacher can quickly become an authority and an example to follow. Consequently, it is a big responsibility, nevertheless it is worth to accept it, as the child can build the capacity and confidence which is useful in later stages of development. This stage requires:
- Assessing the children and their abilities - check who can do what and if they want to do it

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- Cooperating with the community - on whom can you count - the people?, institutions and organizations?
- Reassuring the project participants - supporting, motivating, convincing
- Resolving conflicts - be a negotiator
- Motivating further activities - supporting new ideas, encouraging
- Supervising and providing assistance - you are important for children

5. Summary - evaluation and conclusions

During this stage the activity is summarised and the ability to reflect on the previous experiences (which is a particularly important social skill) is being learned. This stage can also be the moment to start a new topic with the children.
- Summary of every activity/conversation with children: "What did we manage to do?", "How do you feel about the things we did?"
- Appreciation of the group and individual participants
- Building a positive identity: "You are the person who ...", "We are a group that ..."
- External presentation of the results!
- A discussion about plans " What plans have you got for the future?"

The proposed good practice is developed as a combination of assumptions and methods regarding education and prevention, in cooperation with the project partners: Beata Staszyńska - Citizen Project Foundation and Onno Hansen - Ezzev Foundation.

In the initiating stage, as well as during the implementation, an adult ought to consider adopting an attitude, which at the very beginning of the project takes two key assumptions into consideration:

1. "Think of yourself as a tool" - this applies to the teacher's self - improvement – tools need to be improved, therefore it is advisable to develop and educate oneself, to improve professional skills as well as skills useful when working with young people. This assumption can also have another aspect: if one can convince young people to follow this approach at an early age, they will learn the value and power of self-development.

2. "I'm part of the problem" – this approach ought to facilitate the work and cause more credibility of an adult in relationship with youth. This is a difficult approach to one's work, because it is assumed that in most problematic situations related to the student, the teacher can have their distinct contribution - not necessarily positive. Consequently, **if a student does not understand the topic of a lesson, before giving a grade, the teacher analyses what has been done and what has not been done in order for the student to make progress.**

It is vital to keep in mind the 3 principles of working with children and youth

1. Good replaces evil.

Focusing children's energy on performing tasks and socially useful activities that build their self-esteem helps to eliminate behavioural problems..

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2. Real life.

Developing social skills takes place through the tasks carried out in the natural environment of the child. This contributes to a real change in the relationship of the child with the society.

3. Pay It Forward.

Children use the competences they have developed for the benefit of others.

To conclude, I would like to draw attention to a few issues, the inclusion of which had a beneficial effect on working with children.

1. **Create a ritual** - make sure you save enough time to talk individually with the pupils, and for a discussion with the whole group about the difficulties, needs and ideas (it can be once a month, but it must be clearly defined, e.g. during the first lesson of the month) - **kids love rituals, secrets, uniqueness**.

2. Jointly create a list of topics for discussion that are important for the children and talk them over during the school year - let the children prepare the meeting and give them a possibility to invite guests, teachers, parents **(not only does the inclusion of parents have a beneficial effect on the children's self – confidence, but it also enables parents to become more easily and closely involved in other school activities).**

3. **Media literacy** - using the skills of the participants and becoming familiarised with the online world - the Internet and the media can be of help, as they allow for a better understanding of the children's needs and their online identity (and also allows for self-education along the way).

The above described group is very specific, not only because of the age, but also because it is the first generation that was born when the Internet was already widespread. Hence, it is something ordinary and natural for them, just one of the tools to use, to have fun with, and to learn from. They do not really see it as a risk the adults talk about. The online reality is also a place where children spend a lot of time and where, just as in the "real world", the same communication skills, and the ability of maintaining a dialogue are needed.

3.3.3. Good practices 12-14 - The Project-Based Learning Method

Dialogue lessons based on The Project-Based Learning Method:

Drawing upon the experience of experts working with the youth, I would like to suggest a good practice in working with young people in the area of communication. The time of adolescence, and thus the period of learning in middle school is a special time for learning the skill of dialogue, which both the youth and adults simply lack. Each of these age groups has its own explanation for this situation - both worth listening to and reflecting on.

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Young people usually believe that most adults do not understand them or are just plain stupid, while adults say that young people are arrogant ('we were not like them'), and that it is all because of the Internet which is dangerous (at least there is an excuse) or the school system which set up middle schools and thus isolated a very specific and demanding period of development (both for young people and their caregivers).

During this period the parent is often at a loss, and, motivated by love or helplessness, begins seeking for help, reading guides, self-educating, in order to understand the child. In turn, a teacher neither willing to understand the child nor to improve his teaching skills, gets angry or may become burned-out, which often results in mutual frustration and lack of any benefits on both sides (adult / youth).

It is worth remembering that children this age are self-centred and experience the world, school, and family issues from their subjective point of view. The questions that they ask are not easy and could on occasion be waking fear, e.g.: Who am I?, Who am I going to become?, Who am I to others?, How do others see me?, Who do I want to be? etc.

The proposed good practice is one of the methods that can be used to start a dialogue and in my opinion has at least two advantages.

Firstly, it can stimulate young people to look at themselves and learn skills that may prove crucial in their professional, personal and social life. Secondly, a skilful and clever introduction to the theme by an adult / teacher can promote dialogue between teachers and children. Later on, the children may use this experience when encountering other adults.

While deciding to initiate the dialogue and to use the proposed good practice, you may use the prophylactic approach based on the Project-Based Learning Method, which draws from personal experiences of professionals who work with youth on a daily basis.

Suggested stages of implementation and preparation:

6. A diagnosis of the groups' current needs

If you decide to diagnose the current needs of the group, try to answer a few questions, which are a mini-diagnosis of the group you work with. While looking for an answer, use individual interviews, group discussions, observation and suggestions from other people you work with.

Examples of areas to be checked may include (keeping to the topic of Dialogue):
- What are the difficulties young people lately experience?
- What are they not able to do?
- What seems to be disturbing, destructive about their behaviour?
- What works and what does not work?
- What kind of activities do they willingly take part in?
- What questions do they ask?
- What are they not aware of and do not understand?
- What issues are they currently interested in?

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- What do they do spontaneously?
- What are they suggesting, what do they ask for?
- What surprises you in their behaviour?
- **What are the underlying problems and needs of these "signals"?**

7. Long-term diagnosis: key questions

When thinking about prevention, consider whether it is worth to ask yourself a few questions e.g.: What do your mentees need to learn? What skills should they acquire? Who are they supposed to be in the future? When looking ahead at working with young people during a three year period of middle school, one might begin the "process of change", nevertheless it is worth remembering that the process needs to be monitored and watched over.

Examples of questions that can help in thinking about the long-term operation ought to include:
- What kind of future do you want for your mentees?
- Who are they going to be in a few years' time?
- What are the social roles they play in the family, at work, in their community?
- How do they behave, relate to others, fulfil their responsibilities?
- How are they perceived by others?
- What do the children need to make this vision of the future possible?
- In what situations can the children gain the knowledge, the skills and competencies they need?
- What experience do they need?

8. Initiation

After answering the above mentioned questions and deciding to start a project in this form, you initiate a phase during which, together with the children, you define the subject matter, e.g.: How to talk to each other? What is dialogue? How to be a friend / colleague? (the theme is the result of a mini – diagnosis). It is worth to save enough time for conversations and discussions, so that everyone can speak and understand the topic/issue you will deal with.

Do not rush. The more time you spend on the discussion, the less resistance due to ignorance and reluctance there will be later. Give the youth initiative, do not impose your ideas, resolve only to making suggestions. Assume that there are no bad solutions, they only need to be checked and possibly changed, and the decision is to be made by the whole group.

At this stage, the following issues are worth emphasising:
- The attitude of an adult: faith in children, enthusiasm and commitment
- Showing the youth, what may change as a result of initiatives taken by them
- It must be a real, socially useful activity
- Preparation – setting up specific stages (task delegation, the appearance of coordinators, scheduling, communication methods)

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- A respected and significant person (educator, volunteer, priest, manager...) gives meaning to an event, a situation, tells the children what needs to be prepared, asks the children how to do it? (e.g. we want to make a music video, how should it look like and how can we do it?)
- The message, which contains an element of uniqueness and mystery
- Openness to ideas of young people to affirm their belief that it's a good initiative
- Giving young people responsibility for the activities, situations...

9. Implementation

It is worth remembering to be a wise adult. Contrary to the stereotypical opinion, there are few people on whom the youth can rely on and be understood. It is a developmental period in which the teacher can quickly become an authority and an example to follow. Consequently, it is a big responsibility, nevertheless it is worth to accept it, as the child can build the capacity and confidence which is useful in later stages of development. This stage requires:
- Assessing the children and their abilities - check who can do what and if they want to do it
- Cooperating with the community - on whom can you count - the people?, institutions and organizations?
- Reassuring the project participants - supporting, motivating, convincing
- Resolving conflicts - be a negotiator
- Motivating further activities - supporting new ideas, encouraging
- Supervising and providing assistance – remember that you are important for children

10. Summary - evaluation and conclusions

During this stage the activity is summarised and the ability to reflect on the previous experiences (which is a particularly important social skill) is being learned. This stage can also be the moment to start a new topic with the children.
- Summary of every activity/conversation with children: "What did we manage to do?", "How do you feel about the things we did?"
- Appreciation of the group and individual participants
- Building a positive identity: "You are the person who ...", "We are a group that ..."
- External presentation of the results!
- A discussion about plans: "What plans have you got for the future?"

The proposed good practice is developed as a combination of assumptions and methods regarding education and prevention, in cooperation with the project partners: Beata Staszyńska - Citizen Project Foundation and Onno Hansen - Ezzev Foundation.

In the initiating stage, as well as during the implementation, an adult ought to consider adopting an attitude, which at the very beginning of the project takes two key assumptions into consideration:

1. "Think of yourself as a tool" - this applies to the teacher's self – improvement. Having in mind that tools need to be improved, it is advisable to develop and educate oneself, to improve

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professional skills as well as skills useful when working with young people. This assumption can also have another aspect: if one can convince young people to follow this approach at an early age, they will learn the value and power of self-development.

2. "I'm part of the problem" – this approach ought to facilitate the work and cause more credibility of an adult in relationship with youth. This is a difficult approach to one's work, because it is assumed that in most problematic situations related to the student, the teacher can have their distinct contribution - not necessarily positive. Consequently, **if a student does not understand the topic of a lesson, before giving a grade, the teacher analyses what has been done and what has not been done in order for the student to make progress.**

It is vital to keep in mind the 3 principles of working with children and youth

1. Good replaces evil.

Focusing children's energy on performing tasks and socially useful activities that build their self-esteem helps to eliminate behavioural problems.
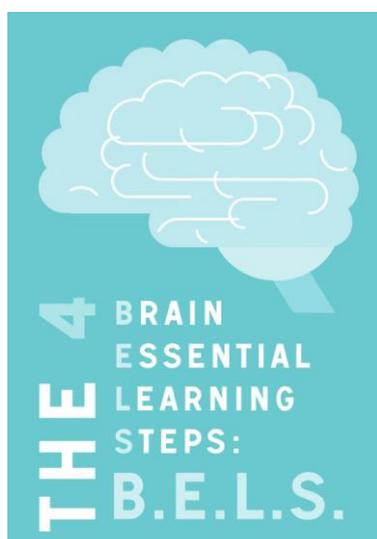
2. Real life.

Developing social skills takes place through the tasks carried out in the natural environment of the child. This contributes to a real change in the relationship of the child and the society.

3. Pay It Forward.

Children use the competences they have developed for the benefit of others.

3.4. WHAT IS B.E.L.S.?[2]

Introduction

The creators of the Brain Essential Learning Steps (B.E.L.S.) method define it as "a consistent thematic approach to teach children curricular content retained through interpretation and application". [http://www.achildsworldcenters.com/curriculum.html] Rather than a method to enable a top-down transfer of knowledge B.E.L.S. aims at empowering the understanding of new information from one's own perspective and at empowering learning by experiencing. As such B.E.L.S. is a fruitful frame for the implementation of the IDentifEYE teaching workshop that aims to positively impact teachers, students and student online safety by means of letting teachings try out and evaluate new good practices.

B.E.L.S. finds its origin in neuroscience. Author Andrea Seidman and her team at the A Child's World Center, came up with the method "to bring the world a new pedagogy that would make teaching the way the brain

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[2] http://visual.ly/4-brain-essential-learning-steps-bels

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learns the new paradigm in education". [http://www.achildsworldcenters.com/about-us.html] This means that the method is in constant flux.

B.E.L.S. was at first implemented by a Child's World as an early care and early education method. Later on the method was used in all kinds of educational settings [http://www.pakeysconsulting.com/PDF/4B.E.L.S._Abstract.pdf], including lifelong learning. This is how B.E.L.S. is used in the IDentifEYE workshop: as a method for lifelong learning.

Skills

The following lifelong learning skills are developed by means of B.E.L.S. [http://www.achildsworldcenters.com/curriculum.html]:

- Problem Solving;
- Risk Taking;
- Cooperative Learning;
- Creativity;
- Cognitive Responsibility Systems.

Four steps

There are four Brain Essential Learning Steps:

- B.E.L.S. 1: Providing an introduction on a subject;
- B.E.L.S. 2: Brainstorm and list ideas connected to the subject;
- B.E.L.S. 3: Create a plan for action on the subject;
 - B.E.L.S. 4. Implement the plan for action.
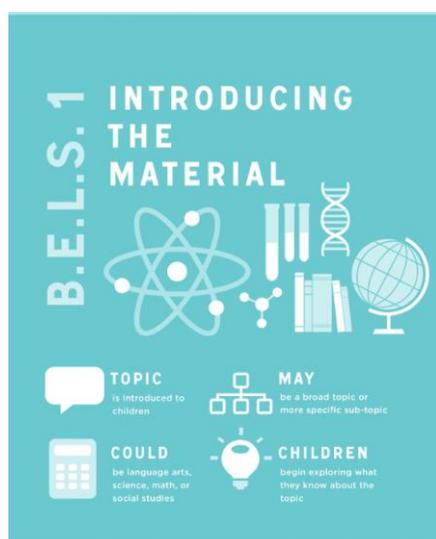
The first Brain Essential Learning Step can be described as follows [http://www.pakeysconsulting.com/PDF/4B.E.L.S._Abstract.pdf]: "This is the introduction to the learning unit, theme, specific curricular content or subject. The fact-finding begins here." The step may concern a broad subject or a sub-subject. The step helps participants to "begin exploring what they know about the topic".In the IDentifEYE workshop the first step takes place during the introductions of the themes during the first three sessions.

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B.E.L.S. 2 concerns collaborative brainstorming:: "List the activities on your mind map that reinforce the theme, topic, concept you are teaching – This step should include visual, auditory and kinesthetic exercises. Brainstorm and list ideas related to the main topic. The ideas include each student's understanding of the topic, each student's personal knowledge and experience on the topic, and each student's evolving ideas for a working plan as each student builds ideas on the contributions of the members in the class."
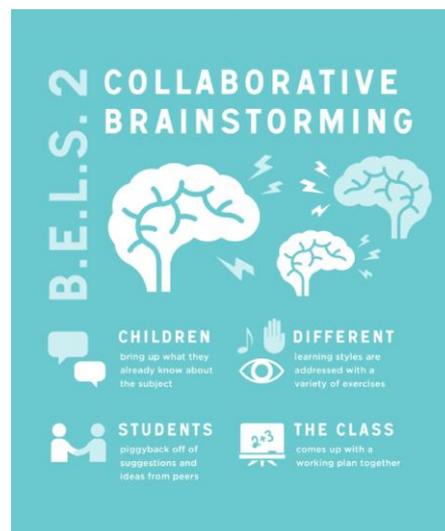
[http://www.pakeysconsulting.com/PDF/4B.E.L.S._Abstract.pdf]
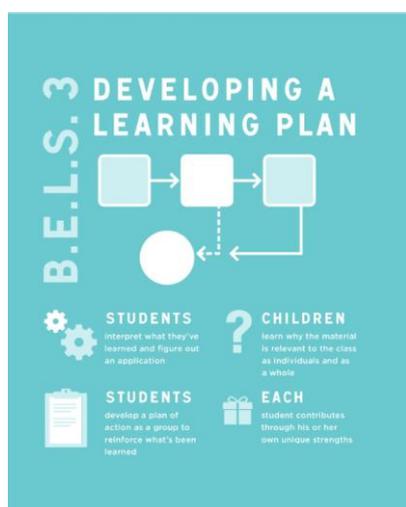
The second step is in implemented in the workshop in the form of a discussion after each introduction.

B.E.L.S. 3 is about developing a learning plan: "It is time to plan how to use the information introduced and learned. This step requires the student to interpret the facts and concepts for application. The focus in this step is why this information is relevant to the class and to each of its members. Relevance is basic or more abstract depending upon the content and the goal of the lesson. It is always necessary to have students clarify the meaning of the information for a specific purpose that is personally relevant. Gather the facts and information together as a group and develop a plan for action. Plan for action suggestions are: original skits, journal writing, presentations, through dance, through music, through art displays or through combinations of all these suggestions. Each student's strengths are represented in developing the plan." [http://www.pakeysconsulting.com/PDF/4B.E.L.S._Abstract.pdf]

The third step takes places in the workshop at the end of session three and then comprises the whole of session four. Some brainstorm elements (step two) will still be present as well.

In B.E.L.S. 4 action is taken: "– It is time to use the information and implement the plan. Should we create a bulletin board display? Should we make costumes, scenery, props for a show? Are we presenting to an assembly of other classes? Parents? Community groups? School parade? Class museum? School display? The possibilities are as numerous as our imaginations will take us!" [http://www.pakeysconsulting.com/PDF/4B.E.L.S._Abstract.pdf]

The fourth step is executed during the teacher implementation of

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their lesson plan at their own school.

Step 5

In the workshop there is a fifth step added to the original B.E.L.S. method: Evaluation. This has been done because in education good practices can only be good practices when they are tested. By creating in addition a Best Practices/ Lessons Learned document based on the evaluation the evaluation results become sustainable.

4. Multimedia Instructions[3]

This section presents the multimedia instructions to be utilised by the workshop instructor.

Playing the Augmented Reality game [8-11; 12-14]

Definition: Augmented Reality (AR) consists of a real-time video stream generated by a camera to which digital elements are added that appear in reaction to a predefined trigger.

Augmented Reality as a technology is not new. During the twentieth century AR components were conceived from the nineteen fifties onwards. In the nineteen sixties and seventies the first AR applications appeared while in the nineteen nineties the term "Augmented Reality" was coined. But it was only from 2009 that it slowly started to take off as a mass consumption technology. Despite large-scale implementations by for instance IKEA and McDonald's the technology has remained a fringe technology in the consumer market.

In education AR is being used to stimulate interest in our surroundings by adding digital information to physical objects – as seen on our smartphone screen, tablet screen or computer screen - by means of digital Post-It-like labels. This digital information can refer to objects that are registered on our screens such as mountains. The digital information concerns for instance the name of the mountain or its height. The digital information can also refer to objects that are invisible on our screen because they are blocked by other objects – for instance metro stations that are a few blocks away – or that were once here in another era.

This use of AR in education is being popularized by teachers in the United States but also in Europe and beyond.

The Augmented Reality game [8-11&12-14]

The IDentifEYE AR game is to evoke interest in our online identities. The game stimulates the emerging relationship between didactics that are employed by the teacher and the atmosphere in the class room.

"Emergence" is a specific kind of causal relationship between two processes (one process leading logically to the other), in this case between didactics and class room atmosphere. The relationship is causal but the concrete causality cannot be established. It is impossible to pinpoint how the exactly causality works.

Think of emergence in the following way. If you would be reading the rules of a game to play you can try to imagine how it would be to play this game. Nevertheless, you will never succeed in predicting how it is to play the game. The experience of playing is always different than imagined before. Although the experience of playing the game is evoked by following the rules of the game it cannot be logically derived from these rules.

The AR game also is a kind of emergent. Visual digital elements (augmentations) appear as a response to answers given in the game. These visual elements together build the representation of our online identity that emerges from the game answers on data sharing. Still, the direct relationship between the answers and the augmentations is not clear. This lack of clarity is to reflect the lack of clarity in way the atmosphere in the class room is trigged by the didactics chosen by the teacher and is to evoke questions and reflections.

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[3] (For the full technical instructions regarding AR Game development please refer to **Result4: AR& Multimedia Instructions**)

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For elaborated instructions on how to customize the AR game check Result #4 AR& Multimedia Instructions.

4.1.1. How to play the AR Game (both age groups)

- To play the AR game you need computer with Internet access and webcam (built in or plugged in);
- The game needs constant access to the Internet during the play, so we suggest to use Ethernet cable;
- It is good to have constant background behind you when playing the game. The color of the background should be different from skin tone – the best background would be a monochromatic blue or green wall or sheet;
- You need to have Silverlight installed – see below;

Table 2: Access to IDentifEYE Game

8-11 Age Group	12-14 Age group
- Before starting the game you need to calibrate it. You can calibrate the game here http://identifeye.ezzev.eu/?debug – see below; - The game is available here http://identifeye.ezzev.eu/ - ENG, GR, PL, NL versions and in http://identifeye2.ezzev.eu – for ES, LT versions	- Before starting the game you need to calibrate it. You can calibrate the game here http://id-eye2.ezzev.eu/?debug – see below; - The game is available here http://id-eye.ezzev.eu/ - for PL, GR, ES, LT versions and in http://id-eye2.ezzev.eu/ for ENG, NL versions

- When start window will appear, click on the flag in upper left corner to choose the language of the game;
- Now we can play the game;
- We can fill in the data form on the start page, but it's not necessary to start the game;
- Click "Start" to start the game;
- A new window will appear. We will see the view from the camera – optionally you need to give permission first - and, in the bar over the view of camera, instructions and questions and answers will appear;
- Click on the image of the markers on the right side of the screen. A PDF file will open. Please print the markers (one page A4 format). After you have printed the markers cut out the markers to get four seperate markers for the game;
- Follow the instructions on the screen. Begin by showing marker A to the camera;
- In the bar over the view of camera, questions will be shown. After choosing an answer option show the corresponding marker (A for A, B for B etc.);
- On the right side of the screen at the bottom there is a "Quit" button. When you click it you will be transfered to the start page;
- Show the marker only for a short period into the camera, untill the next question will appear in bar. If you show the marker too long, it is possible that the game interprets the marker as the answer to the next question;
- After your have provided your answer by means of a marker, a graphic representation of the answer (augmentation) will appear on the screen;
- After you have answered all of the questions, "Finish" button will appear next to the "Quit" button. Click on it to end the game;

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- After finishing the game, we will see a summary of the game on the screen with all questions and answers and a photo of the view of the final screen with all the augmentations. Questions and answers can be downloaded by clicking on "Download results" button; the photo can be downloaded by clicking on the "Download photo" button;
- To end the game click "Finish".

4.1.2. Prerequisites

- Computer with a webcam (preferably a PC since the installation of Silverlight on a MAC can be more troublesome)
- Browser with MS Silverlight 5 plug-in
- 2+ GHz CPU
- 1+ GB RAM
- Internet connection
- Digiboard (or beamer with projection screen)

Silverlight

The IDentifEYE game has been developed as a MS Silverlight application. In order to be able to play the game, the user must have a browser, preferably with the latest, MS Silverlight plug-in installed. The installed version of the plug-in must at least support MS Silverlight version 5.

If you have a previous version of MS Silverlight installed, please de-install it completely before installing the latest version.

MS Silverlight plug-ins are available for both Windows and OSX, as well as for a multitude of browsers. IDentifEYE does not require a specific platform or a specific browser. Given the fact that Silverlight is a Microsoft product though, best results will likely be obtained on a Windows machine, using Internet Explorer. Only the Internet Explorer version of the Silverlight plug-in has the necessary hardware acceleration for graphics operations.

IDentifEYE has been tested on both Windows and OSX, using Internet Explorer, Chrome and Safari (OSX only). **Chrome no longer supports Silverlight.**

Silverlight can be downloaded free from: http://www.microsoft.com/getsilverlight/Get-Started/Install/Default.aspx Installation instructions are provided on the same page. After installation, the user should be able to start the IDentifEYE game right away by visiting the url.

Mac Users should completed delete all earlier versions of Silverlight before installing V4 or V5.

Webcam

In terms of hardware, IDentifEYE does not impose any restrictions, other than the requirement of a webcam. These days, most webcams are close to HD resolution. For performance reasons though, IDentifEYE works with 320x240 screen captures. As long as the webcam supports that lower limit, it will suffice for playing the game.

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CPU

The CPU is the abbreviation for central processing unit. Sometimes referred to simply as the central processor, but more commonly called processor, the CPU is the brains of the computer where most calculations take place. In terms of computing power, the CPU is the most important element of a computer system.

In theory, wherever the Silverlight plug-in runs, IDentifEYE will run. However, as IDentifEYE's core functionalities are all centered around the face detection, face tracking, augmentation and marker detection -- which are all computationally (very) demanding operations -- it is recommended to have a powerful CPU. What a powerful CPU is depends on the used platform and what other processes are running on the machine at the same time, so it can't be specified.

Great results have been obtained with Intel 2 GHz and up CPU's. The effect of lesser CPU's will be that the machine's CPU usage will peek while playing the game, and the cooler fan will probably spin up. During tests, only when using an Intel Atom powered netbook, noticeable glitches in the game operations were detected.

RAM

RAM is the acronym for random access memory, a type of computer memory that can be accessed randomly; that is, any byte of memory can be accessed without touching the preceding bytes. RAM is the most common type of memory found in computers and other electronic devices.

In terms of RAM, the IDentifEYE game can be pretty demanding. Due to the graphical nature of the game, many images will be held in the memory at any one time while playing. Based on tests, a lower limit of 1 GB of RAM was determined. Keep in mind, that other processes running on the same machine as the browser will also consume RAM and might lead to a higher overall RAM usage.

Not having enough RAM available while playing the game will result in hard disk swapping -- orchestrated by the operating system -- and ultimately creating unwanted visual side-effects (glitches).

4.1.3. Getting best results

Face detection

Face tracking in IDentifEYE is based on skin colour detection. In order to get best results, try to:
- Face the camera whilst playing the game;
- Sit straight in front of the camera, centering the face in the view pane;
- Sit at about 80 centimeters away from the camera;
- Avoid multiple faces and/or other body parts (like hands) in the camera view;
- Arrange for clear ambient light, that:
  ◦ does not cast a lot of shadows onto the face;

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- ◦ does not cause bright highlights in the face, eyes or glasses;
- Sit in front of a background of a non-skin color. Blue and green backgrounds work best.

When you play the game and augmentations become jumpy or fails completely, one of the following things is the matter:
- There is insufficient light;
- There are other objects in the camera's view that are assumed to be (potential) faces.

When you play the game and augmentations are projected all over the game's screen you are probably sitting too close to the webcam.

Please make sure that when you show the marker to the webcam the whole marker is visible on the screen. Please show the marker only until you see an indication that the marker has been recognized. Showing the marker longer might cause the game to interpret the marker as the answer to the next question.

Tweaking face detection

In order to adjust the game to your environment, please visit http://id-eye2.ezzev.eu/?debug . Run the game up to the point that your camera is activated. In the frame where you see yourself you'll find sliders at the bottom. These are your controls to play with.

Now you can tweak what shades of color should be interpreted as skin tones. This is based on YCbCr color space (http://en.wikipedia.org/wiki/YCbCr) – as is the default for these kinds of applications.

On the screen you will see yellow sections – those are the detected skin tones. In red you'll see what the game considers to be your head. Now you can change the values of the thresholds in such a way that only your head will be found and the section is not too jumpy. You will notice that the red section will have a delay versus the yellow section. This is a conscious decision. It makes the augmentation less jumpy.

Make sure you use the debug functionality on the face of the person who is to play the game!

Once you have found the ideal setting for your environment, click "SAVE". From that moment on the game settings will be stored on that particular computer, also outside of the debug-page. If you want to return to the default settings, just click DEFAULT and then SAVE.

Marker detection

To some extent the 4 markers (ABCD) are not a very sensitive process and therefore should not cause marker detection errors. For best results however, avoid:
- Displaying multiple markers at the same time;
- Holding markers in a way that fingers overlap the marker (the black border is part of the

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actual marker).

When things go wrong

Important

Silverlight applications run in a [sandbox](). This means that a Silverlight application cannot crash the browser, nor can it freely access resources on the user's computer. If a problem occurs related to the stability of the browser, or to any other program or file on the user's computer, IDentifEYE cannot be the cause!

Trouble shooting

Whenever a user has problems starting or playing the game, please do the following:
- Make sure the Silverlight plug-in is installed by visiting any other MS Silverlight based website, or directly by going to the previously mentioned download URL;
- Make sure the user is not behind a firewall that blocks Silverlight applications (.XAP); XAP (pronounced ZAP) is the file extension for a Silverlight-based application package (.xap). This file contains the compressed assemblies and resources of a Silverlight 2 application.
- Determine whether the currently signed in user has enough privileges to:
  ◦ Download Silverlight games;
  ◦ Execute Silverlight games;
  ◦ Use the webcam.

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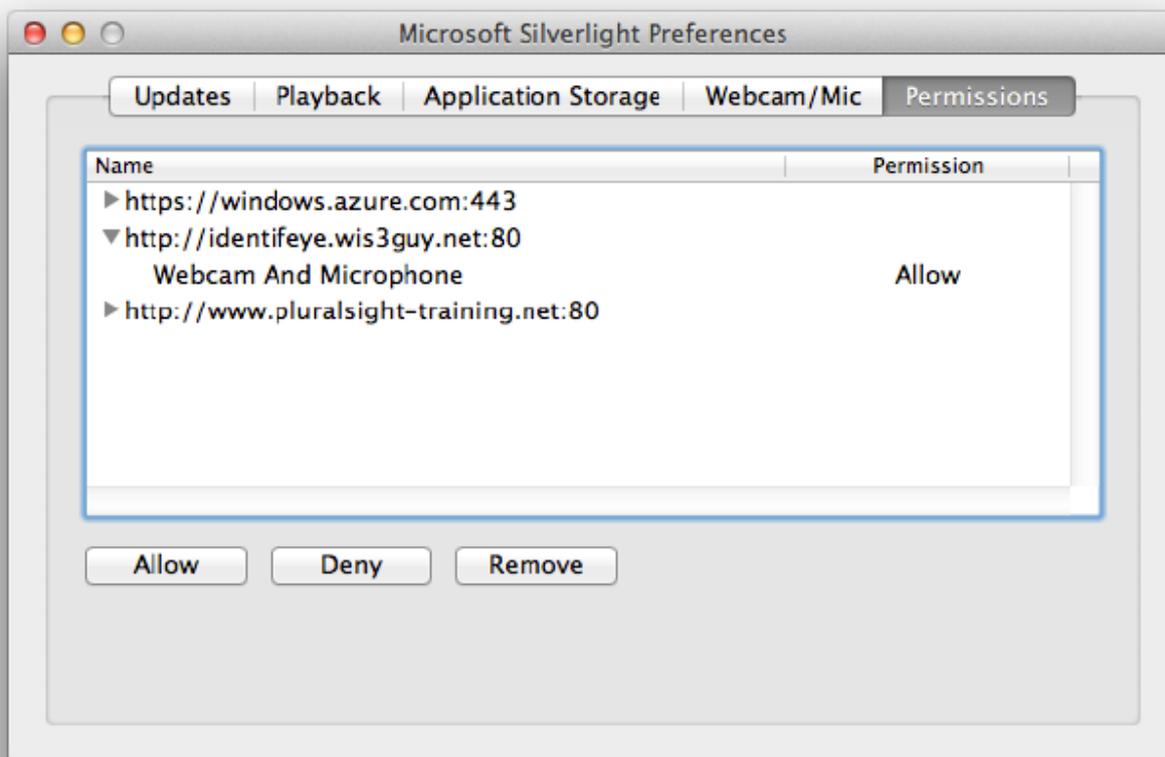
Silverlight will show a popup every time that an application wants to access the webcam. On that popup a user can choose to accept his choice. You should either not see the game URL on this tab, or see it with the above Allowed permissions. In case you read Deny there, please remove the permission and restart the browser. Next time, the same popup will be shown to ask for permission to access the webcam.

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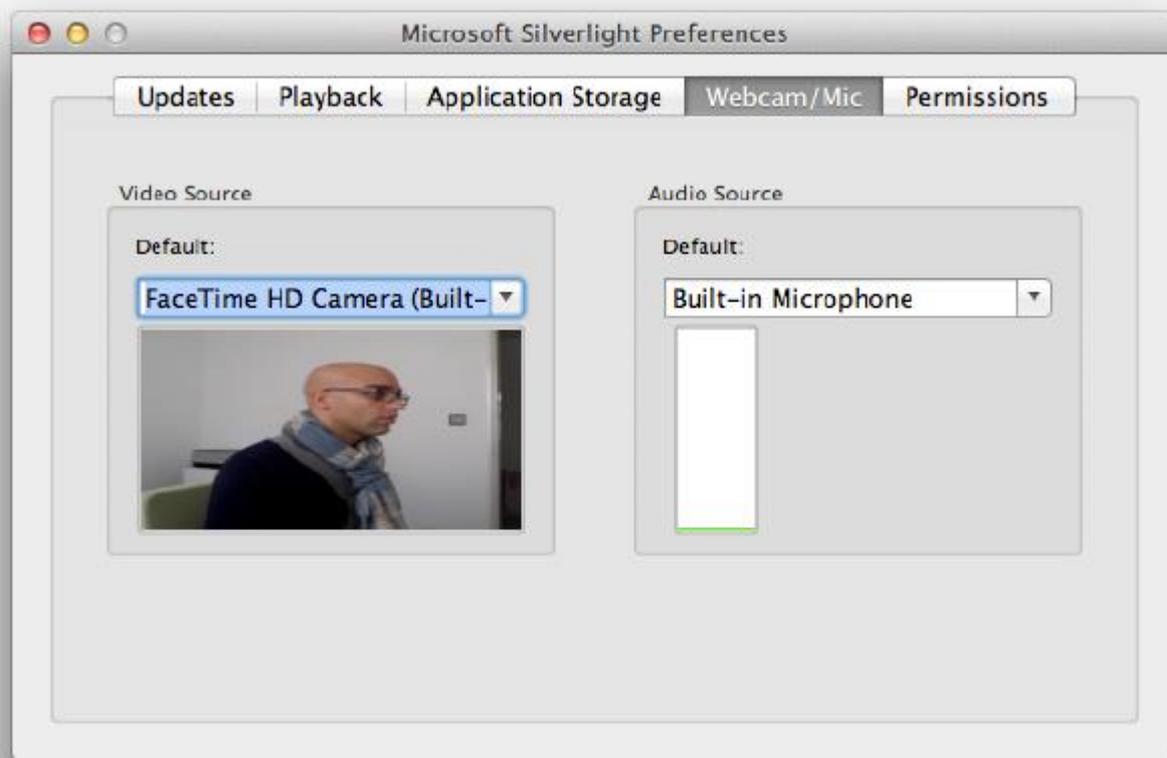
If you see yourself in this format (page image can differ with platform) you know the webcam is working properly and the user has access permissions to use it.

The actual window lay-out of the Silverlight Preferences window and tabs may differ per operating system and plugin version.

Still having problems

Sometimes, when the above doesn't solve the experienced problems or lead you to a root cause, the following might help:
- Uninstall Silverlight, then reinstall it;
- Clear the browsers cache;
- Add the game URL to the trusted sites of the browser.

Last resort

When all above fails, please make a written note of the items below to assist the game developers to help you or rectify possible programme errors.
- Computer (Make / CPU / RAM / Webcam);
- Operating System (including version);

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- Browser (including version);
- Firewall (yes/no);
- Wifi or wired network;
- Is the user administrator on his/her computer (yes/no);
- A clear description of the problem;
- Screenshots of the problem screen (if applicable);
- Screenshot of the Silverlight Preferences tabs (context menu, right click on the game).

Please Note

No data whatsoever are transferred to a server outside of the local machine on which the game is played. No data are requested by an external server, neither are data offered to an external server.

The personal data that are optionally entered at the beginning of the game are temporarily stored in the machine's RAM during the game session. Those temporarily stored local data are cleared after the session by means of the 'explicit content clear' functionality that is part of the game software.

It can thus be guaranteed that no data that are entered in the IDentifEYE game are stored for whatever purposes, either externally or locally.

4.2. Playing the Game in the classroom: A case study

STEP 1 – 2'
EXPLAIN THE PURPOSE OF THE LESSON
Children at this age cannot keep their attention for too long. Try to briefly and concisely deliver the purpose of your lesson.
- THIS LESSON AIMS TO EXPLAIN WHAT ONLINE "IDENTITIES" ARE AND HOW THEY ARE BUILT.
STEP 2 – 2'
DISCUSS THE RULES
- WE ARE GOING TO PLAY A GAME – IT MEANS WE ARE GOING TO DISCUSS VARIOUS OFFLINE AND ONLINE SITUATIONS
- IT IS IMPORTANT TO REMEMBER IN THIS DISCUSSION ABOUT 3 SENTENCES, WHICH YOU WILL REPEAT AFTER ME:
o SOMETIMES I MAKE MISTAKES
o SOMETIMES MY MOTIVATION IS SELFISH
o I AM A PART OF THE PROBLEM

STEP 3 – 20'
PLAYING THE GAME
- Choose who will be playing - you or a student. If a student wants to be the person playing, they should do so, because placing them in a role in the foreground will increase their self-esteem and self-confidence, and the rest of the group will participate more actively in the lesson. If none of the students decides to play, then you as a teacher should assign yourself as a player, which can be a certain attraction for students and can give a greater commitment to the lesson. In case

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a student will play, remember to have contact with them before the lesson and calibrate the game to their features. This will allow you to implement your lesson smoothly and without disruption.
• The game is the central point of your lesson. Play it in such a way that children keep up with you, do not hurry. This will help them to focus attention.
• FOR EACH QUESTION RANDOMLY CHOOSE A STUDENT WHO WILL READ THE QUESTION AND WHO WILL SUGGEST AN ANSWER
• ASK WHO AGREES WITH THE SUGGESTED ANSWER AND WHY?
• ASK WHO DOESN'T AGREE WITH THE SUGGESTED ANSWER AND WHY?
• CONDUCT A VOTE

Take frequent and longer breaks, to discuss upcoming questions. Students of this age do not have a lot of patience; they want to understand, to learn as soon as possible. This will allow you to maintain order in the classroom and continue the lesson.
Listen carefully to the questions and the comments of the students, try to catch as much information from them while speaking about the views and needs of your students.

EXAMPLE:
QUESTION 6
Do you normally fill out all the fields during a registration, even if they are not mandatory?
If the answer YES is selected these are suggested deliberations:
- What do you think happens with the information you entered in the fields that are not mandatory to fill out?
- What do you think the site or app responsibles do with the information about you that you enter? Do you think that anyone will get to see it on the web?
If the answer NO is selected these are suggested deliberations:
- Why don't you share all the information?
- What do you think happens with your data if anyone has access to it?
If the answer SOMETIMES is selected these are suggested deliberations:
- When do you enter all the information about yourself, and when not?
- Why do you sometimes leave fields empty?

QUESTION 8
Imagine that your colleague published a photograph of you from five years back on his profile. What do you think?
If you select an answer I LIKE THIS these are suggested deliberations:
- Why do you like it?
- Imagine that others do not like this picture, and maybe write a comment that does not appeal to you. How would you feel then?
If you selected answer I DON'T LIKE THIS these are suggested deliberations:
- Did this happen to you, or maybe any of your friends have been in a similar situation?
- How do you think the person whose picture was placed without their knowledge online feels?
- What can you do in this situation?

STEP 4 – 6'
AFTER THE GAME – DISCUSSION
ASK YOUR DIAGNOSTIC QUESTION PREPARED BEFORE:
IS IT POSSIBLE TO BE ONLINE AND NOT TO BUILD YOUR ONLINE IDENTITY?
EVERYONE NOW HAS TO SHOW A GREEN CARD: (YES) OR A RED CARD: (NO)
• CHOOSE A PARTICIPANT WHO REPLIED NO AND ASK WHETHER THEY COULD EXPLAIN WHY THEY HAVE CHOSEN (NO)
• CHOOSE A PARTICIPANT WHO REPLIED YES AND INVITE THEM TO EXPLAIN WHY THEY HAVE CHOSEN (YES)
• THEN – LET THE STUDENTS VOTE AGAIN

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- EXPLAIN YOUR POINT OF VIEW, EXPLAIN WHY THE ANSWER SHOULD BE (NO) - EVERY ACTION ONLINE BUILDS OUR IDENTITY. EXPLAIN WHY, USING EXAMPLES FROM THE GAME:

USE THE QUESTION / ANSWER OPTION - GAME NOTES: No. 8, 9
My justification (the teacher):
Each online action adds to building our online identities – It's worth to show the children that almost every activity on the Internet, especially on social networking sites, leaves a trace. Profile updates, photos, videos and comments often cause people form their own opinion about us, not always consistent with our self-image. Uploaded information may live "their lives", which means it can be available and disseminated by other people, that we don't know. We have less control over comments by others and places where they are published. Those information can build an unwanted image. Put a particular emphasis on the thinking and online safety, If there's anything students do not understand, let them ask for an explanation and help from adults. In the world of both offline and online there is a "golden" rule - "What you give is what you get", the sooner we can help students understand this, the faster they will be at least a little more aware and safe in the virtual world.

STEP 5 – 10'
DRAWING – MY SELF-PORTRAIT ONLINE
TASK 1 – DISTRIBUTE THE FORM
- INVITE STUDENTS TO DRAW THEIR SELF-PORTRAITS ONLINE – THEIR ONLINE IDENTITY
- AFTER THE DRAWING – ASK ALL INDIVIDUALLY TO SHORTLY DESCRIBE WHAT THEY HAVE DRAWN

STEP 6 – 5'

QUESTIONNAIRE

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5. ANNEX

5.1. Game Markers

5.2. AR Model Lesson

5.3. Game Task

5.4. Game Questionnaire

5.5. Result #4: AR Media & Content Development Guidelines