Ministry of Education - Guyana

In collaboration with the **OAS** and **ProFuturo FOUNDATION**

2020 CARICOM ICT Route - Advance Level

MODULE 4 - CREATION OF EDUCATIONAL EXPERIENCES

Training Manual for Teachers of Riverine and Hinterland Region



MINISTRY OF EDUCATION
ELIMINATING LITERACY, MODERNIZING EDUCATION, STRENGTHENING TOLERANCE

ProFuturo

A PROGRAMME OF: Telefónica FOUNDATION "la Caixa" Foundation

OAS More rights for more people

Message form the Minister of Education



Dear Teachers

Across the world, the COVID 19 pandemic (Corona Virus) continues to cause undesirable disruption to the global education systems. Guyana, as you know, was not spared. As such, we implore you to keep engaging our nation's learners and we applaud those of you who have tried and continue to try. We heard your concerns when you told us you were uncertain about how to teach using different means, that you lacked confidence, and that you felt you were not equipped. This is our first response in partnership with the **OAS** and **ProFuturo Foundation**. This training will give you the much-needed knowledge and expose you to the tools you need to deliver education differently by being innovative and by using easily available technology.

We are aware that the cost of data is of great concern to you and we have remedied that by partnering with GTT and Digicel to zero rate the ProFuturo platform domain. This means that when anyone accesses the training platform, data will not be consumed. If teachers have neither devices nor connectivity, we will arrange a suitable location and if teachers, as those in the hinterland and riverine areas, cannot access either, even with our help, we have arranged for part of the program to be done through these printed modules because we know that it is only a matter of time before you are able to access connectivity and devices. We will never leave you behind.

I encourage you to take this training offer with vigour so that you can be better prepared to do what you love: influence by teaching the next generations.

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KEY TERMS

Please familiarize with the following terms and meaning.

1. **Asynchronous communication**

   This is a type of communication in which the contributions of the interlocutors takes place at a different moment in time. When this type of communication is used in education, the intervals between the different participants' contributions should be reduced as much as possible so that communication is agile and does not lose meaning and so that there is not a detrimental effect on the motivation of the students.

2. **Collaborative work models**

   These are different strategies for collaborative work that Walters (2000) classifies as: Learning Together, Student Team Learning, Teams-Games-Tournaments, Jigsaw and Group Investigation.

3. **Distributed evaluation**

   This type of evaluation takes place throughout the learning process, from start to finish and is carried out by both teachers and students.

4. **eTwinning**

   A European initiative that promotes twinning and intercentre educational projects.

5. **Interdisciplinary learning**

   This is the process of acquisition and creation of knowledge which involves different subject areas, relating the content to each subject by improving various skills and competencies.

6. **Mobile learning**

   This is a form of learning which uses mobile devices such as tablets, mobile phones, iPods or other devices with Internet access as well as GPS. This technology can be easily moved from one place to another and therefore breaks down barriers of space and time.

7. **Networked society**

   These are communities promoting shared learning and self-training (Marcelo, 2006). They are characterised by being voluntary initiatives of teachers, democratic in their origin and functioning, and with a strong commitment to innovation, change and educational improvement.

8. **Positive interdependence**

   This is a characteristic of collaborative work in which the individual work of each member of a group is essential to achieving the common objectives.

9. **Synchronous communication**

   This is a type of communication in which the participation is simultaneous between all the participants. Chats or video conferences are tools that represent synchronous communication.

10. **Teacher networks**

    A multi-cultural society with new values, skills and abilities which revolves around the new technologies.

11. **Touch generation**

    The generation born during the proliferation of tactile mobile devices and who are able to use this type of technology with ease.

12. **Twinning**

    This is the relationship established between two or more schools that set up common collaborative projects and seek common educational objectives.

13. **Ubiquitous learning**

    This is a type of learning that is available from any location and situation and is accompanied by the use of new technologies (usually mobile devices) and the Internet.

Unit 1

Creation of educational experiences



Starting point

At some point in our lives we have all **shared** some task or **experience** with other people; however, **has it always been a satisfactory experience?** Some educational manuals and experts (Salinas, 1997; Collazos et al., 2001) talk about **collaborative work** as the **next step** for change in the **21st century school.**

"No one can whistle a symphony. It takes a whole orchestra to play it."
H.E. Luccock

It will be essential to fulfil some requirements so that this step does not become a frustrated attempt to change.





Objectives

- To understand various **suggestions** for the organisation of the **collaborative work** so as to **create educational experiences** based on the participation and collaboration of all of the members.
- To analyse **educational experiences based** on collaborative learning and to know how to adapt them to the educational context in which the teacher works.
- To know how **collaborative experiences** can be **organised** by using ICT.

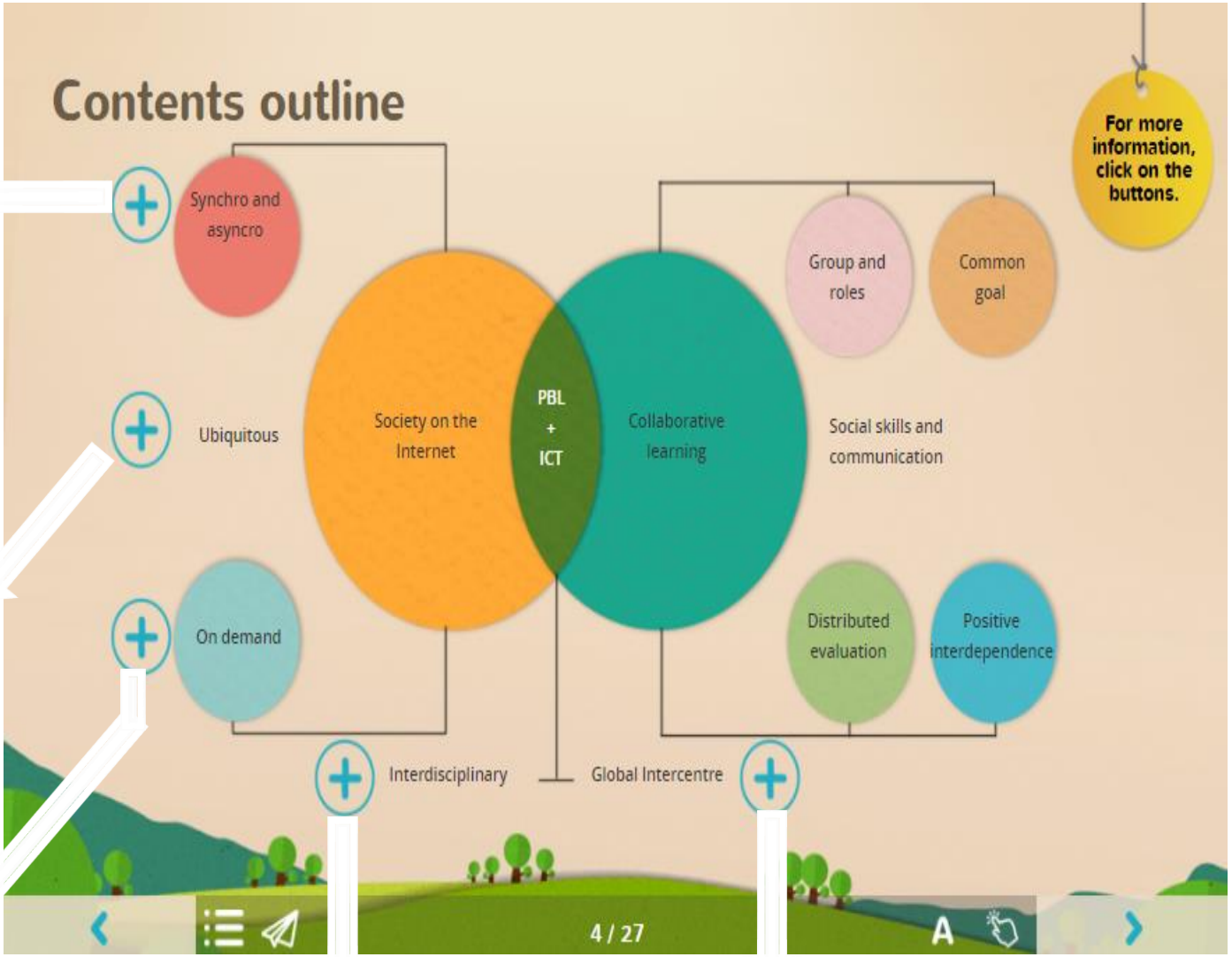


SYNCHRO AND ASYNCRO

Access to information in a synchronous or asynchronous way. There are countless ways to work in the classroom with Internet access and this allows us to establish instantaneous interactions between different geographical locations as well as others which do not require them being connected at the same time.

UBIQUITOUS

The access to information with mobile devices is becoming increasingly more frequent, it breaks down barriers of space (classroom) and time (classes structured in periods of approx. one hour). Therefore this fact helps to change the way we work and the educational paradigm.



ON DEMAND

Access to the Internet offers us an unlimited range of information to chose from according to our taste and our learning needs.

INTERDISCIPLINARY

All these factors, plus the idiosyncrasy of a networked society that concentrates information into nodules by connecting them in turn, within a network, improving the relationship between the different topics and subjects, thus enhancing the interdisciplinary work in schools.

GLOBAL INTERCENTRE

The possibilities of the relationship between new technologies and collaborative work facilitate joint work between centres, regardless of the geographic location, language or culture. The ease of making connections enriches the students' learning, who see the relationship between the content and what they practice in their interactions with other youngsters and peers who live in other areas far away from them.

Unit 2

Collaborative work



Key aspects

On occasions we can identify collaborative work in **these situations:**

Tedious meetings without coming to clear conclusions, wasting time, working against each other, conflicts.



"Collaborative work divides the task and multiplies the success."
Anonymous

Individual responsibility in the **achievement of common success** is one of the **key aspects.** Teamwork doesn't always means working collaboratively. Additionally, there are tasks that are best done individually.

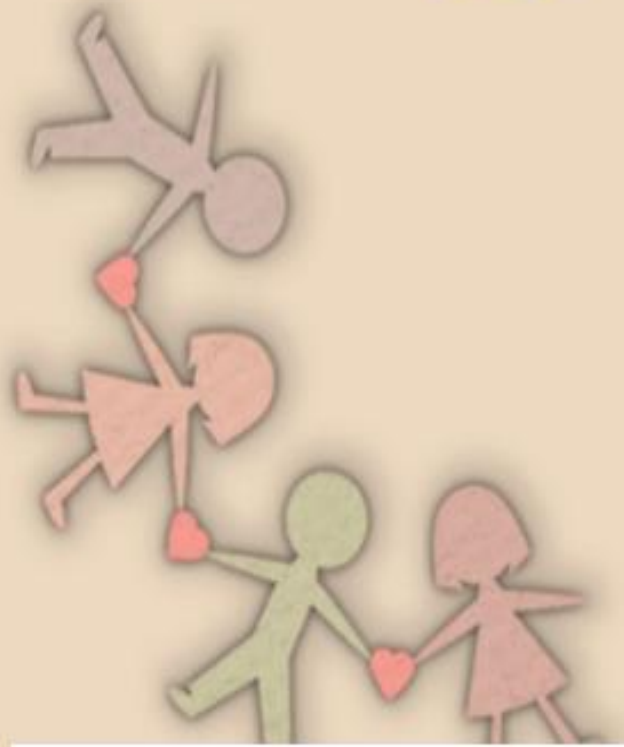
Organisation

How can the fundamental conditions for organising collaborative work be summarised in a few points?

For more information, click on the vertical arrows



1. Teams and roles
2. Common objective
3. Positive interdependence
4. Social skills
5. Distributed evaluation



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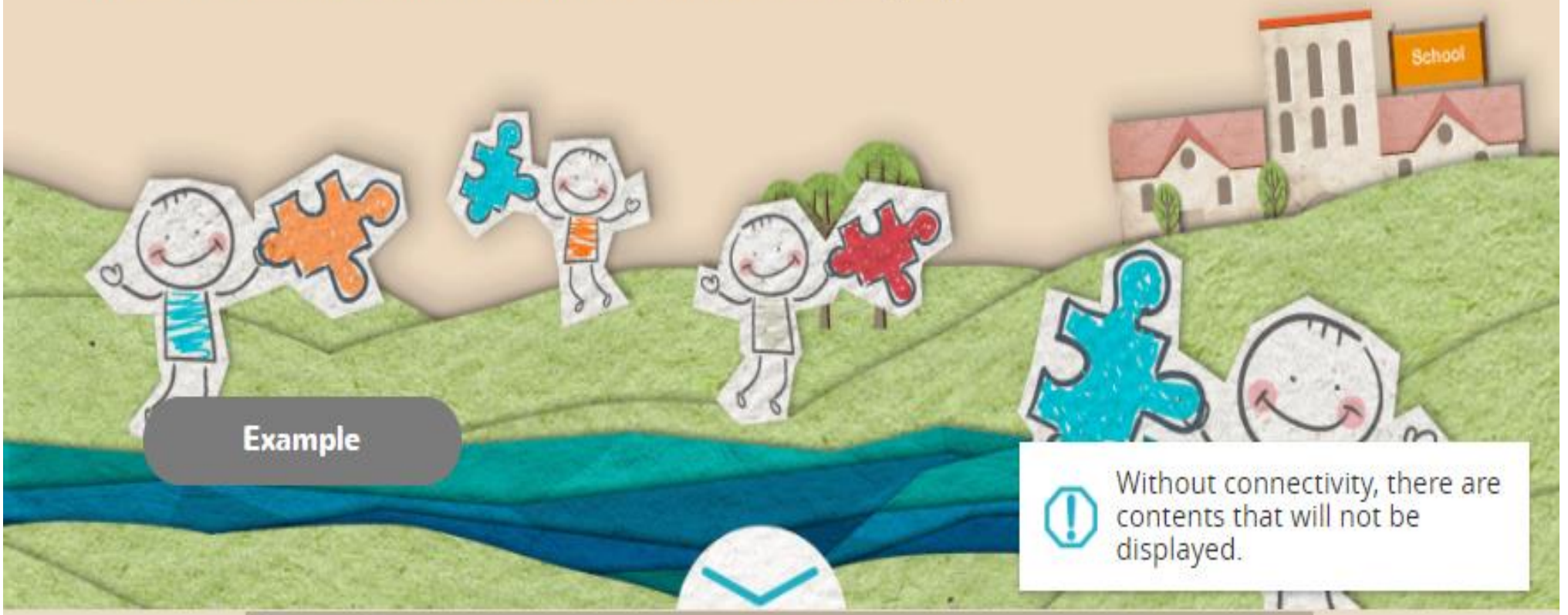
Organisation

For more information, click on the vertical arrows

Teams and roles

The group is usually divided into teams of **2-5 people.**

These may be **fixed or regrouped** during the development of the sessions. It is essential, however, that each individual has **a role and well-defined functions** within the group.



Example

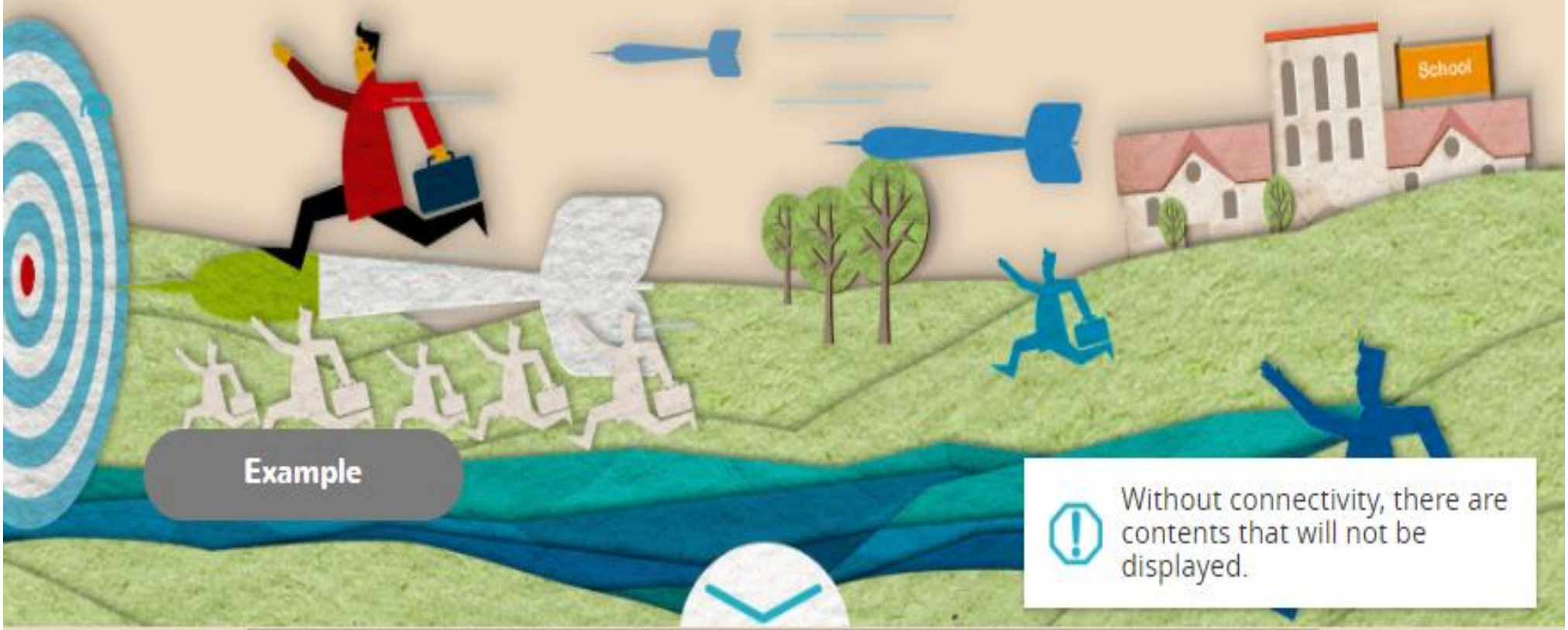
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Organisation

For more information, click on the vertical arrows

Common objective

The whole group works to achieve the **group's objective**, although each **individual** is also **responsible** for their **own performance.** The outcomes obtained in collaborative work usually bring rewards. An example of the collaborative learning model is Game Based Learning (GBL).



Example

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Organisation

For more information, click on the vertical arrows

Positive interdependence

The **individual work** of each member of the group is **essential** to **achieve the proposed group objective.** A significant example of what is being explained is the GBL Master and Team Spirit.



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Organisation

For more information, click on the vertical arrows

Social skills

The teamwork should be designed to **encourage communication** between individuals, coming to **agreements**, adaptation to other points of view, **giving support, and encouragement** to other peers. Situations such as **debates** or public **presentations** will also be promoted.



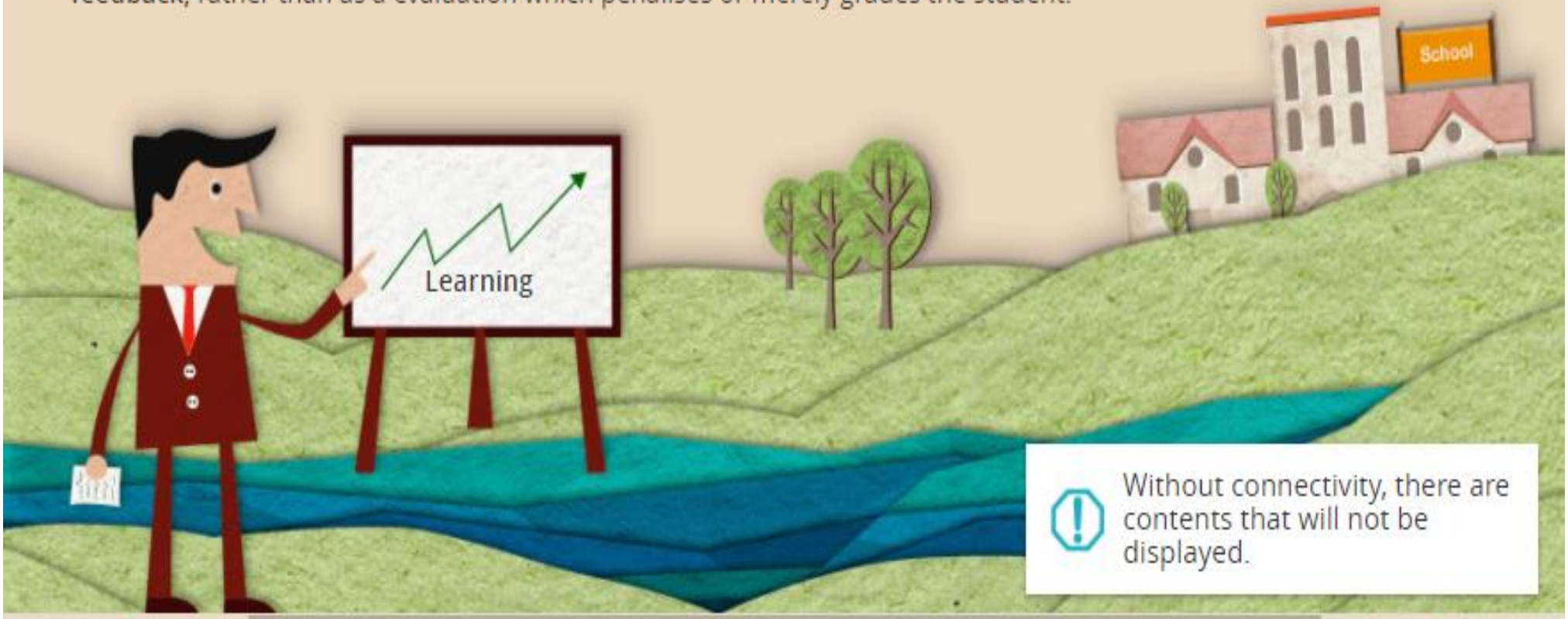
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Organisation

For more information, click on the vertical arrows

Distributed evaluation

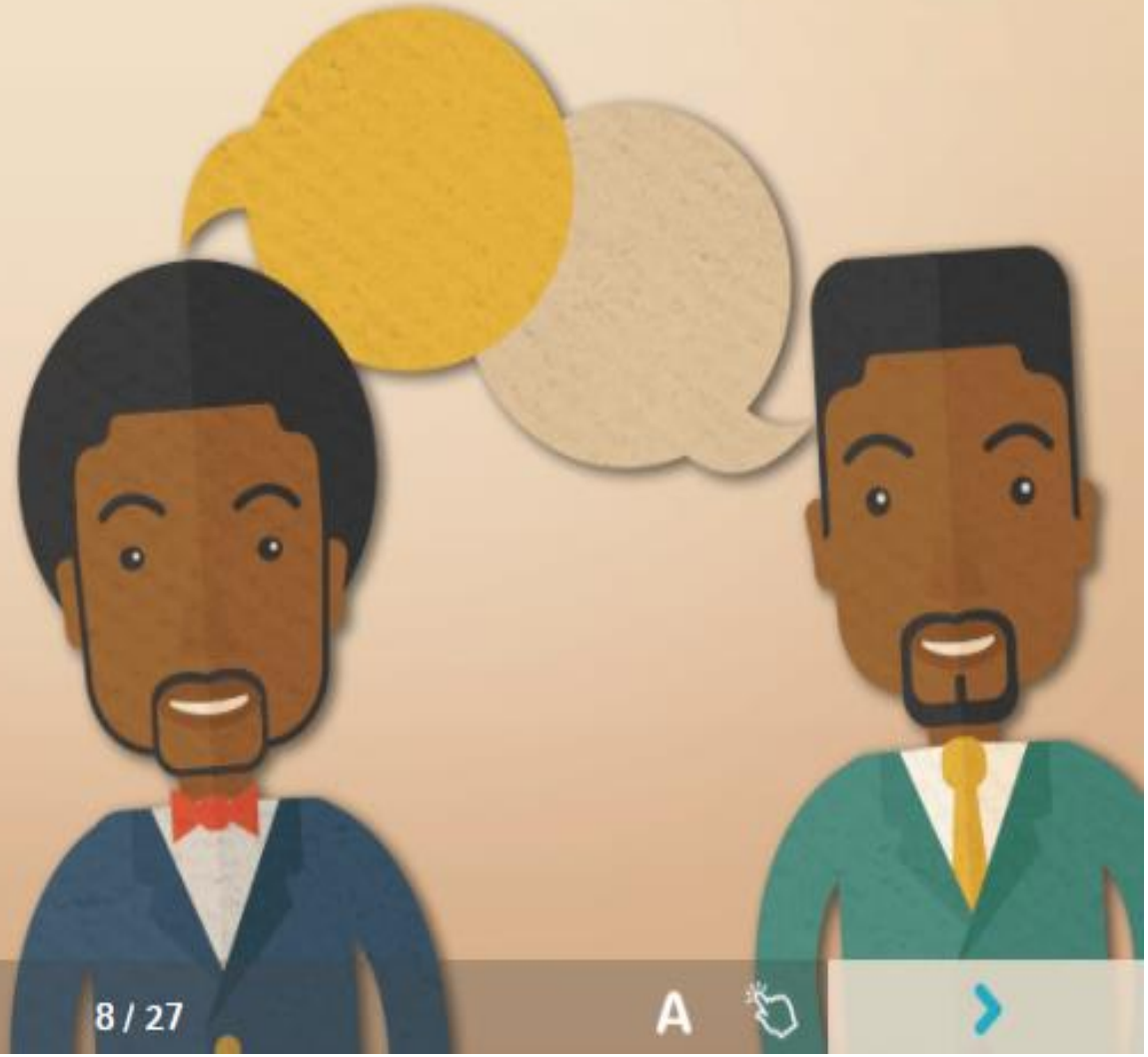
We use this term to illustrate a type of evaluation that stimulates the **growth of learning** in which all of the **players in the learning** process **participate:** the **students and the teacher.** Evaluation in collaborative work evaluates **the process and the product**, as well as the **achievement** of the group as a whole and individual learning. But its key feature has to be that it is used as an **element of learning** and which provides **feedback**, rather than as a evaluation which penalises or merely grades the student.



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Unit 3

Practical suggestions



What is the focus?

Below we will look closely into various **practical suggestions** for collaborative work, in order to understand the set of **variables** which may intervene in the **instructional design** of this type of practices.



The **proposed collaborative work** will serve as examples and will be analysed from the **perspective** of the five basic conditions that we have seen: team and roles, common objective, positive interdependence, social skills and distributed evaluation.

The Prehistory

This project aims to find out the **fundamental features** of Prehistory.

For more information, click on the vertical arrows

1. Teams and roles
2. Common objective
3. Positive interdependence
4. Social skills
5. Distributed evaluation

- Students: aged 11-12.
- Materials: texts for each group and the materials necessary to create a mural.
- Duration: 8 sessions.



Educational Experiences

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The Prehistory

For more information, click on the vertical arrows

Teams and roles

- Groups of **six people.**
- To chose the members, each student will be assigned a number which will be used in a **system combining** additions and subtractions.
- The teacher will make sure there is **heterogeneity** in these choices, rectifying them where appropriate to ensure the groups are balanced.
- In addition, within each group there will be **micro groups** of 2-3 people who will be responsible for working on different texts.
- In addition, roles such as **presenter or communicator** (chosen at random) and the **secretary** (who takes notes during the presentations) will be chosen.



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The Prehistory

For more information, click on the vertical arrows

Common objective

- Each group concentrates on **researching** of the following **periods:** Palaeolithic, Neolithic, the Metal Ages, etc.
- Some groups work on the same repeated topic. **Questions related** to each topic will also be given to the corresponding group.



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The Prehistory

For more information, click on the vertical arrows

Positive interdependence

Each member of the group is **responsible for their own learning**, which they will bring to the group when they make the **mural** at the end. This includes not only the details of the **historical period being studied**, but also some **features of these periods** developed by the other groups.



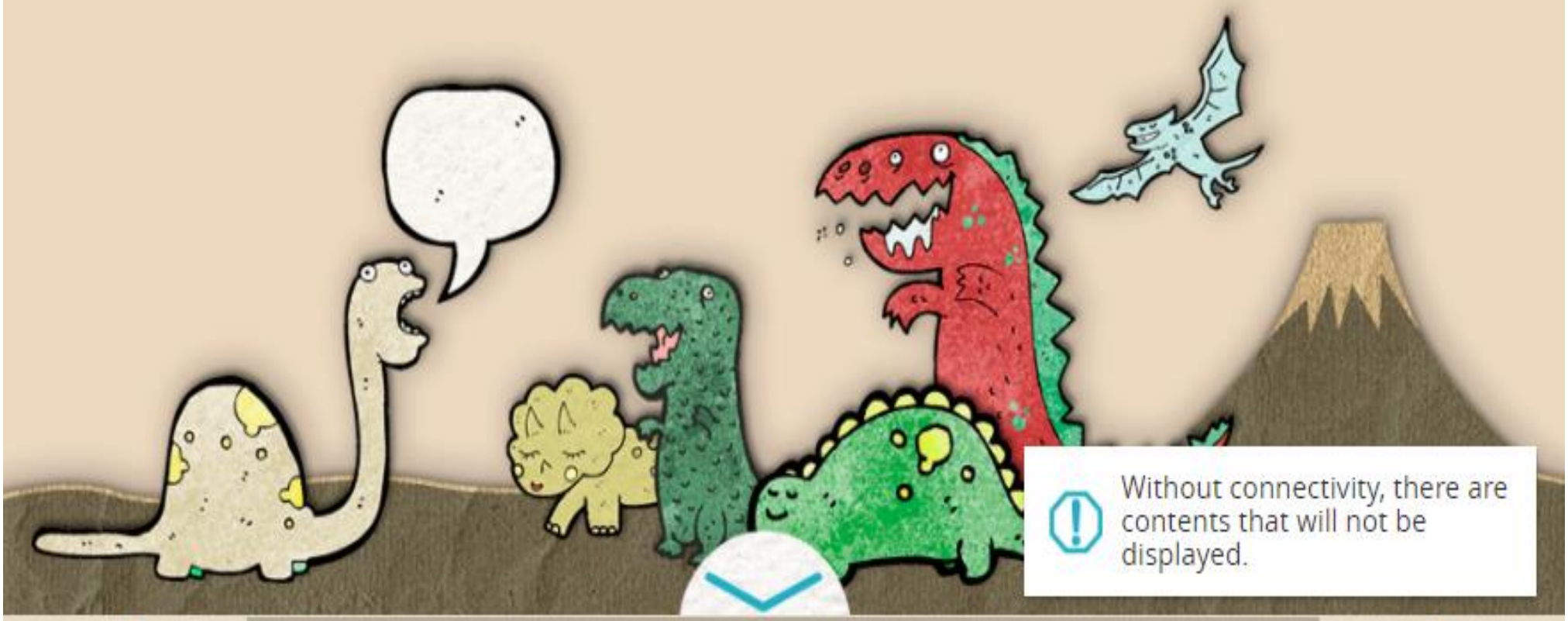
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The Prehistory

For more information, click on the vertical arrows

Social skills

In the second phase, once the questions concerning the topic and the report have been completed, a **presentation** is given by one member of the group to **the rest of class.** This member is selected at random and will not be repeated in future presentations



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The Prehistory

For more information, click on the vertical arrows

Distributed evaluation

For the evaluation grade the groups are given **a mark as a whole**, as well as each student being awarded distinct marks for their participation in class and the individual tests, including the final test after the third phase, which is based on all the contents of this didactic unit.



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Games to learn

The project is based on the creativity to create a game and the knowledge of English language to explain it.

For more information, click on the vertical arrows

1. Teams and roles
2. Common objective
3. Positive interdependence
4. Social skills
5. Distributed evaluation

- **Duration:** 3 sessions.
- **Students:** from 12 to 13 years.
- **Materials:** are chosen by each of the game designers who are the students (iPads, pens and paper, the blackboard etc.).



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Games to learn

Teams and roles

The students are organised into **groups of 3** who create a game together.

For more information, click on the vertical arrows



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Games to learn

For more information, click on the vertical arrows

Common objective

Each group must define the **rules and scoring systems**, making an **animated video** explaining the dynamics and posting it onto **YouTube**.





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Games to learn

For more information, click on the vertical arrows

Positive interdependence

Individual work is required by each student because each one has a **different role** within the group.



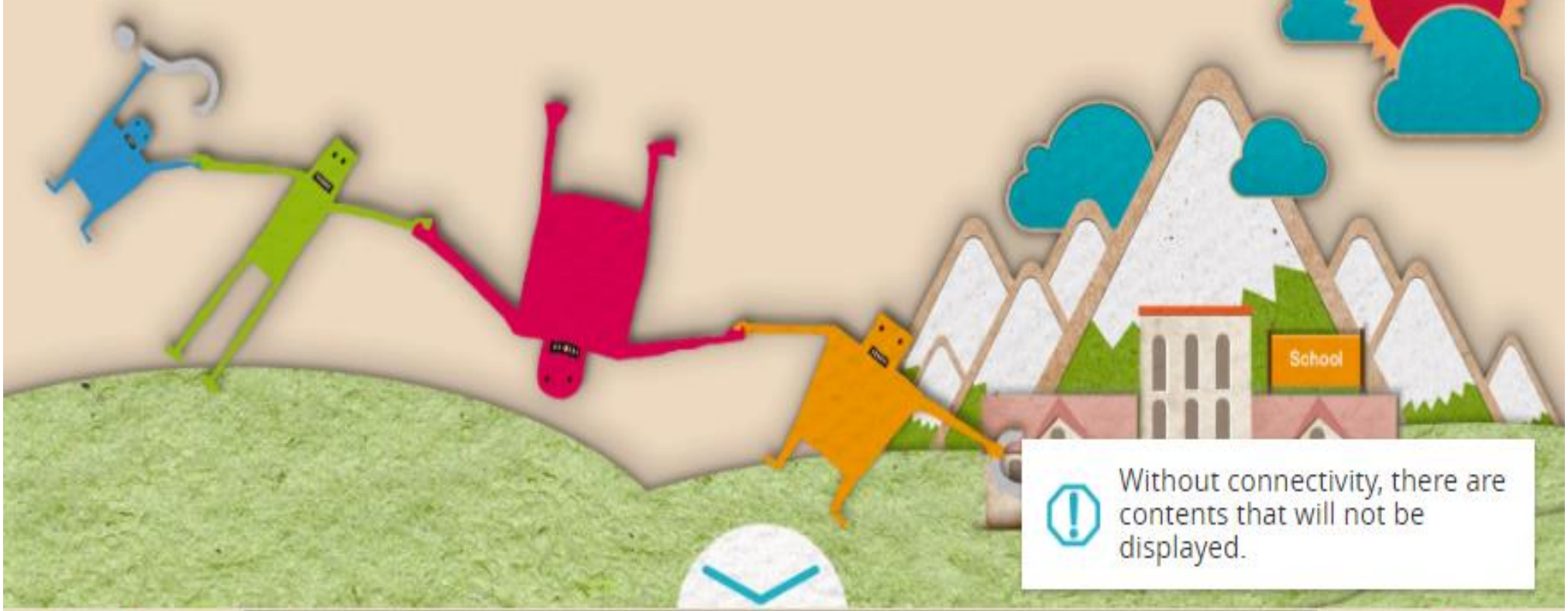
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Games to learn

For more information, click on the vertical arrows

Social skills

They have to prepare the script, **give an oral presentation** of the project in the form of an animation and create **the rules and scoring system of the game.** In addition, the relationships between members of the group and the ability to **resolve conflicts become tasks to resolve** which work on their social and communication skills.



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Games to learn

For more information, click on the vertical arrows

Distributed evaluation

Focuses on both the **process and the product.** The students work in class, create their game and are observed by the teacher. The project is **handed** in through a **form** on Google Drive which they can find on the project's web page.
This is **evaluated** by both the **teacher** and the **students,** who, on the said form, can express a reflection of what they have learned from the game they have created.



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The passive voice

The project is developed within the **subject of English Language** about sentences in the passive voice.

For more information, click on the vertical arrows

1. Teams and roles
2. Common objective
3. Positive interdependence
4. Social skills
5. Distributed evaluation

- **Students:** two groups of students aged 12-13.
- **Materials:** Textbook, photocopies, and PowerPoint.
- **Duration:** 4 sessions.



The passive voice

For more information, click on the vertical arrows

Teams and roles

Mixed groups of 5, comprising of **boys and girls** with different competencies are chosen by the teacher. The roles in each group are as follows:

- **Encourager**, who makes sure all members of the group participate.
- **Time controller**, who ensures they finish the task on time.
- **Secretary**, who takes notes of the agreements made and observations of the members of their group.
- **Volume supervisor**, makes sure that the members of the group do not speak too loud.
- **Coordinator**, coordinates the work and clarifies any doubts that may arise in the group.



The passive voice

For more information, click on the vertical arrows

Common objective

The common objective is to **develop a summary** about the passive voice



The passive voice

Positive interdependence

In the third session, each member of the group has a **task to take** on (the object, the verb form, the subject performing the action of the sentence, transformation from active to passive and the reflected /impersonal form of the passive) in relation to a sentence in the passive voice.
At this stage, the students who have the same role **get together** to look deeper into their task (for example, all those who are looking at the verb form in each group) and, later, they return to their original group to feedback the conclusions.
In this way, the individual work of each member of the group is **essential for collective learning.**

For more information, click on the vertical arrows



The passive voice

For more information, click on the vertical arrows

Social skills

Most of the roles require social skills to **avoid conflicts** in the event that it is necessary to tell a class mate that they should carry out their task in a different way. In addition, the **transmission of information** in the third phase must be clear so that all members of the main group understand what has been studied in each topic area.



The passive voice

Distributed evaluation

Group questions are set as well an **evaluation of the group's final report.** There is also an **observation record** of the process. Finally, **a final individual test** is set. The student is also the protagonist in assessing their fellow group mates answers to the questions.

For more information, click on the vertical arrows



Peace and Cooperation Project

An interdisciplinary project involving the subjects of Art and Physical Education carried out in the context of the **International Peace and Cooperation Competition, 2012** and winner of the first prize in the **mural category.**

For more information, click on the vertical arrows

1. Teams and roles
2. Common objective
3. Positive interdependence
4. Social skills
5. Distributed evaluation

P & C Project

- **Author:** Andrés Izquierdo, IES Isabel la Católica (a Group Investigation Project experience).
- **Students:** of 12 years of age from different countries in Latin America.
- **Materials:** 3 months. 2 hours per week.
- **Duration:** The Internet, materials needed to make a mural, digital tablets.



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Peace and Cooperation Project

For more information, click on the vertical arrows

Teams and roles

8 groups of 3-4 people are formed.
Each group has:

- One or two presenters.
- A researcher.
- An artist.



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Peace and Cooperation Project

For more information, click on the vertical arrows

Common objective

To investigate the relationship between sport and the objective to be developed that each group has chosen.



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Peace and Cooperation Project

For more information, click on the vertical arrows

Positive interdependence

Together, each group makes **its part of the mural** which is dedicated to one of the eight objectives.

However, each member of the group has to develop a **personal project** in which sports fulfils this objective. All individual projects are presented through a video recorded on a **tablet**, uploaded to YouTube and encoded with a **QR code.** The code of each group is incorporated into their mural. Therefore the **individual work influences** the learning and the **success of the group.**





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Peace and Cooperation Project

For more information, click on the vertical arrows

Social skills

Throughout the project students must reach **agreements**, for example to find a slogan for their part of the mural. They have to **coordinate** with each other to find cut outs from magazines with colours which are appropriate for their objective. They have to write a **script together** for the video, working on their communication skills to express themselves fluently when recording the video.



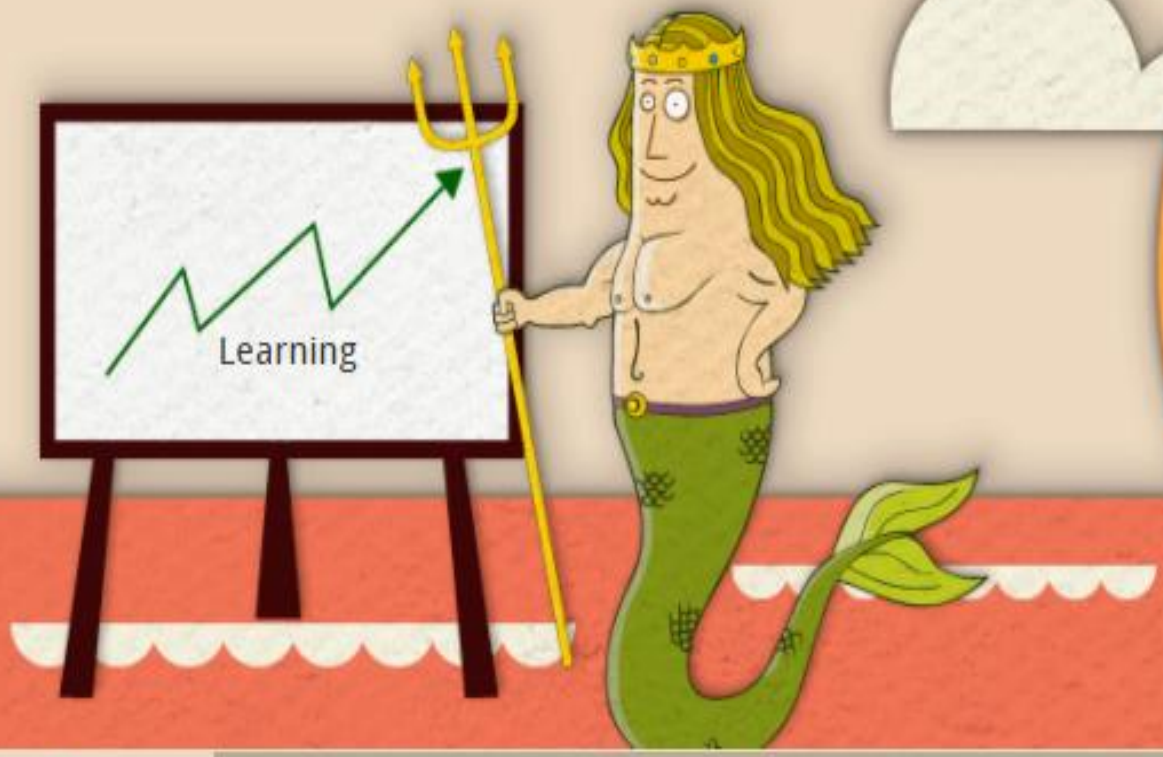
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Peace and Cooperation Project

For more information, click on the vertical arrows

Distributed evaluation

The evaluation is done **separately** for Physical Education and Art. In addition, each student as well as each group is evaluated. The most important part of the evaluation influences the **process.** An **evaluation rubric** is made for the teacher and **individual questionnaires** with open questions are set for the self-evaluation.



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Reflection

Once we have seen the practical experiences we can begin to think about **how to design our own ideas** adapting them to the objectives that we want to achieve, to the characteristics of our classroom or centre, to our students and with the resources that we have available.

However, we should consider:

Is the collaborative work done **only** by the **students?**

What does the **teacher** do?

Do any collaborative work **projects** involving more than one **teacher exist?**



Unit 4

Teacher networks



What are they?

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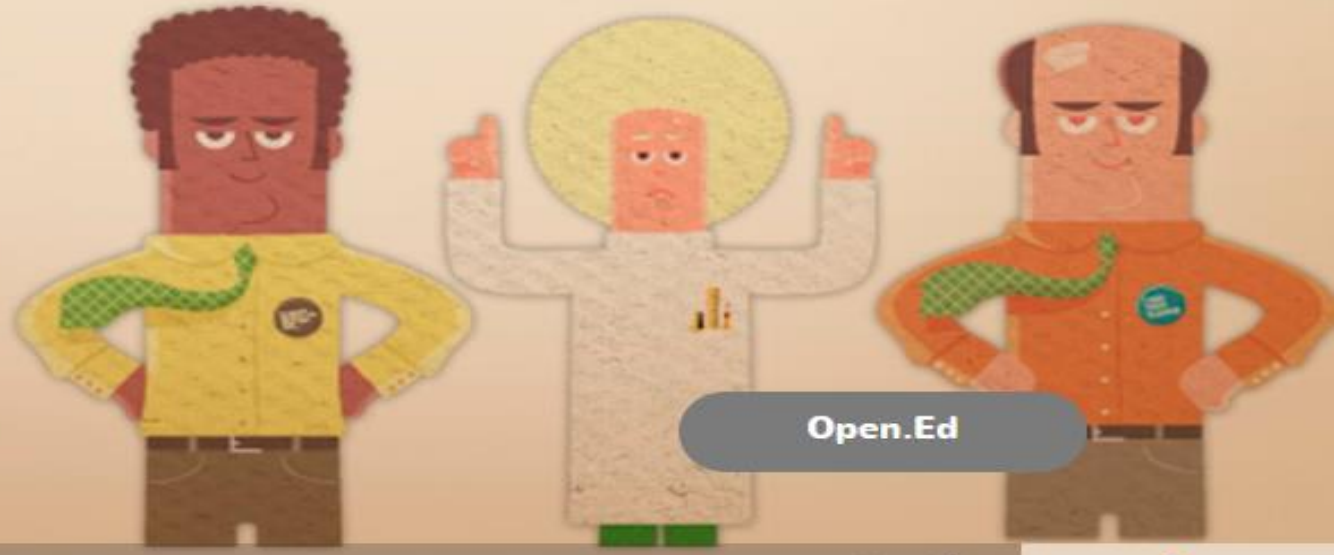
For more information, click on the buttons.

Teacher networks are a relatively recent alternative which have been enhanced exponentially by means of the Internet.

They are communities promoting shared learning and self training (Marcelo, 2006) which are characterised by being voluntary initiatives of teachers, democratic in their origin and functioning, and with a strong commitment to innovation, change and educational improvement.

"Build a small community of those you love and who love you."

Mitch Albom



Know more...

Open.Ed

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TRADITIONAL EDUCATION

Traditionally, teachers have worked in isolation, creating or following materials already developed in a book, transmitting knowledge and correcting exams alone. The only contact that teachers have in a traditional model is with the other professionals in their own department, and occasionally with the rest of the staff at their centre. In this type of paradigm the relationship between teachers dwindles due to a lack of diversity in communication provided by this framework.

Another circumstance that isolates the teacher is the nature of traditional schools with their limitations of time and space. Teachers spend most of the time with a group of students in a classroom and transmit disjointed knowledge in various subjects in periods of about an hour.

TEACHER NETWORKS

They are characterised for their having the objective of sharing work. Through these networks, teachers can communicate with other teachers, explore classroom practices in other communities, adopt ways of working and adapt experiments to their own environment, share and disseminate practices as well as evaluate them. Teacher networks are a forum for change and innovation.
To participate effectively in these networks, the first step is to find a network that appeals to us, which proposes initiatives which are similar to the way we understand education. Once registered, we must research the possibilities of these initiatives. When we know what we want, we will develop our role, becoming more confident in participating and, finally, we will join a working group.

Types of networks

For more information, click on the buttons.

In both types the training potential is extensive. They also often create working groups which are the seed of interdisciplinary and intercentre collaborative projects.

Know more...





Corporate social networks

Self-managed networks

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CORPORATE SOCIAL NETWORKS

A company or foundation is responsible for its creation and maintenance. An example of this type is ePals that offer pairing services for schools from around the world that are eager to learn from one another.

SELF-MANAGED NETWORKS

The teachers themselves have promoted them. An example of this type is The Educator's PLN, online platform for creating social networks that facilitates connections between educators.

Creating educational experiences

Once we know **how a collaborative working group is organised**, as well as the learning situations which need to be created, we can start **creating educational experiences** to apply within the context in which the teaching-learning process of our students is carried out.

For more information, click on the button.



International project

The first task may consist of finding other collaborative initiatives between centres in various countries, such as alternatives to the international project: eTwinning

https://www.etwinning.net/en/pub/index.htm

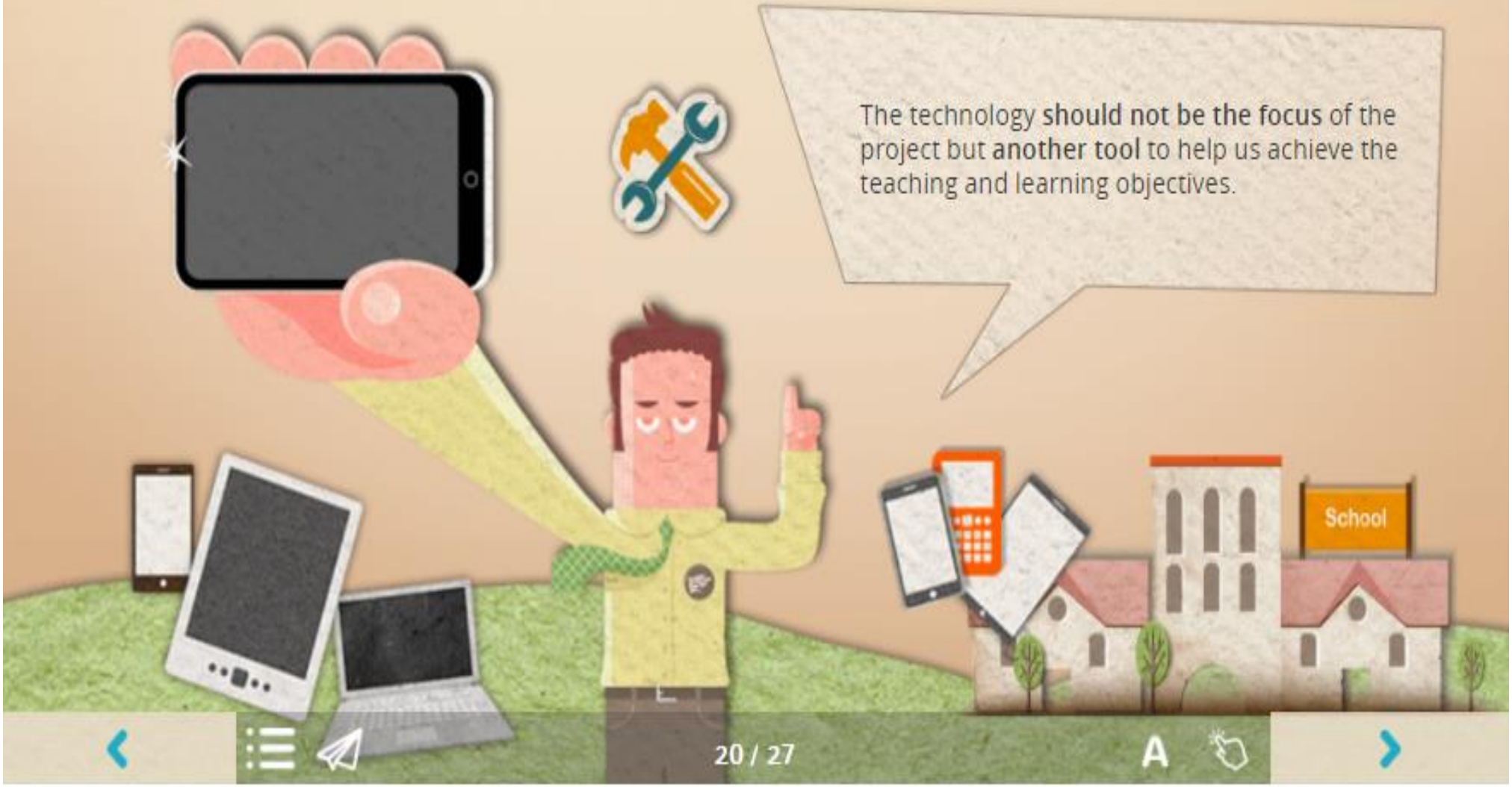
Unit 5

Experiences with ICT



How are they organised?

The use of new technologies in collaborative projects must be carried out following the **TPACK model** and integrating them according to the ADOPT, ADAPT, CREATE and SHARE model.



What types are there?

There are **three classroom-based collaborative learning experiences** which use new technologies as a resource to achieve the proposed objectives:

ENLACE Project

Fitoatocha

ICT4U Project



Fitoatocha

For more information, click on the button.

This is a large scale multidisciplinary project which involves **10 subjects and 186 - 17 year old students from the Salesianos Atocha School** (Madrid) which aims to get the students **interested in Botany**, using digital tools as a means of expression and creativity, as well as encouraging them to **develop their own material** and **collaborative work.**



SALESIANOSATOCHA



The project has received the **Best Practices 2.0** seal from the *Instituto Nacional de Tecnologías Educativas y Formación del Profesorado* - INTEF (National Institute of Educational Technology and Training of the Teaching Staff) of the Education Ministry of Spain.

Download PDF

ICT4U Project

For more information, click on the button.

This is a collaborative project between five European centres: Iceland, Greece, Belgium, Hungary and Spain and with a duration of two years (2010-2012). The initiative **presents an innovative way of working** in which the students, aged between 14 and 17, help teachers learn about **how to use different digital tools.**



How do you post something on the Internet, make a presentation online, or upload photos to the cloud?

Download PDF

Unit 6

Conclusion



Practical activity

Activity

Design, planning, construction and commissioning of **our collaborative project with the integration of ICTs.** Document the process with observation instruments, photographs, videos, meeting minutes and other records that assist in evaluating the evolution and the expected and unexpected changes.

Objective

To understand what a collaborative project is we will enrol in an initiative, working group or create one ourselves with our colleagues at our centre.

Results

Once the initiative has been evaluated we should **share it and disseminate** it in the teacher networks, we may present it in a contest or competition or simply, if the evaluation has been positive, disseminate it as an example of best practices.



Summary

Collaborative work involves **work and collaboration** between the various centres and their professionals, transforming them into **multidisciplinary initiatives.** This methodological change is gradually turning into an educational reality and bringing us closer to the social reality in which we live.

The **basic features** that have to be included in collaborative learning are: working in groups with distributed roles, having a common objective, positive interdependence, promoting social skills and communication, having a distributed evaluation and being the "yeast of learning".

Some examples of experiences of best practices in the integration of new technologies and collaborative learning are Fitoatocha and the ICT4U project.



Final word

We encourage you to create educational experiences based on collaborative models.

Are you ready to implement collaborative experiences in your classroom?

We remind you that, as a final exercise, you can do the self-evaluation test in order to check what you have learned.

