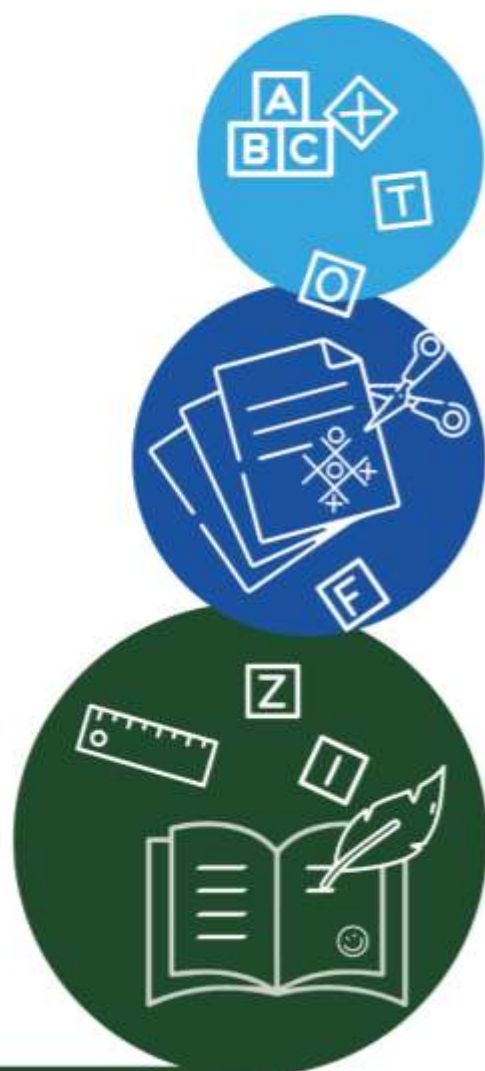SYNERGY AND ENVIRONMENT TO
EMPOWER DECENTRALISED SCHOOLS

G R E E N · S.E.E.D.S

TOOLKIT GREEN S.E.E.D.S.

MODULE 2
Seeds for Teaching

UNIT 1
Teaching-learning
methodologies
for diversity

PARTNERS
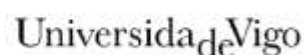
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UNIT 2.1

TEACHING-LEARNING METHODOLOGIES WHICH RECOGNIZE AND CELEBRATE DIVERSITY

Methods which are permanently successful in formal education . . . go back to the type of situation which causes reflection out of school in ordinary life. They give pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking, or the intentional noting of connections; learning naturally results (Dewey 1944, p. 154).

We are used to using statistical patterns to define what 'normal' is in our day-to-day lives. As a consequence, difference and Diversity are defined by their exceptionality and marginality. Nonetheless, sociological and educative studies criticize this idea of statistical normality because it alienates people, and imposes uniformity and negates what makes us human, which is Diversity. There are no two people who are identical (interindividual diversity), although there are often significant similarities. We are also not the same person throughout our entire lives (intraindividual diversity); we are really different when we are 2, 14, or 61. This also occurs in the field of education. There are no classrooms or groups composed of homogeneous students. Though they may share a classroom and be at the same level, students are different in terms of attitude, learning style, expectations, etc. As with any social context, classrooms are diverse spaces.

How a teacher plans the teaching and learning process depends on how they view and conceive these differences. Diversity is ignored when planning is done based on an 'ideal' or 'typical' student'. On the contrary, diversity is recognized when planning is adapted to inter-student differences in terms of their characteristics and needs.

Diversity, however, must not only be recognized; as many authors in the field of inclusive education have pointed out, it must also be celebrated (Ainscow and Messiou, 2016). The diversity inherent to every classroom offers significant benefits in terms of student learning.

In the case of classrooms in rural, isolated, or small contexts, this diversity is even more notable, since it is common for there to be various educational levels in the same classroom, which are often multigrade or multilevel.

Heterogeneity per se is not beneficial. For diversity and differences between students to be beneficial with regards to learning, teachers must promote interaction between students of different ages, evaluate these, and develop teaching strategies based on these differences in order to foment significant, collaborative, and inclusive learning. This teaching unit covers this, presenting the need to respond to diversity by diversifying, opting for teaching strategies which view the classroom as a teaching-learning space where there is a diversity of students, levels, and learning methods.

In this unit we will present and go over three teaching strategies which have been successfully used in diversity contexts. These three accept the need to promote active and participatory learning. These strategies are designed for working with diverse students, based on the idea that student differences enrich learning. The strategies to be examined are cooperative learning, tutorials among equals, and project-based learning.

2.1. What teaching strategies diversify teaching?

2.1.1. COOPERATIVE LEARNING

It is Monday, and a teacher in a multigrade classroom starts the class by asking:

"Did anybody see the football match yesterday?". Most students raise their hands. It was one for the history books, say the experts among them. Everyone agrees that it was a feast for the eyes. After general analysis, they begin to evaluate some plays. Based on the conversation among students, the teacher proposes a simulation:

"Now I'm going to play you a video of some parts of the match. I want you to watch it as if you were a trainer for one of the teams. Analyze the role of each player and their contribution to their team's outcome".
You may wonder why we're going to do this. First, we are going to watch the video and then analyze it. I'll tell you why after the simulation".

The students watch different plays and comment on the roles of the footballers involved in them. It starts to become clear that the result of the different actions by the players who, in a coordinated fashion, play different roles, passing the ball from one to another, going towards the goal. In this process, the role of each of them is different, according to their position (forward, midfielder, goalkeeper, etc.). The best contribution by a player is not achieved in insolation; it is the result of participating with their teammates. When this analysis has finished, the teacher explains to them about the advantages of working in heterogeneous groups and tells them that they are going to make use of work strategies very similar to the ones they have just watched in the video for the upcoming activity.

Cooperative groups are teaching-learning strategies which create a learning structure and group dynamic which allows for knowledge-acquisition to not only be shared, but also to be the fruit of peer interaction and cooperation (Kagan, 1994).

Cooperative learning is based on two fundamental presuppositions:

♦ Firstly, on the fact that learning requires direct, and active, student participation. Nobody can learn for someone else. In any case it can help with learning, but you can be a substitute learner.

♦ Secondly, mutual cooperation and aide, if done correctly, make it possible to achieve higher learning goals; it allows us to learn more and better.

Group discussion, and the cognitive conflict, which is generated when two different, or opposed, points of view clash not only allow us to learn new things about others, it also rectifies, consolidates, and reaffirms what has already been learnt. Cognitive conflict is a psychological phenomenon defined by contrast caused by the incompatibility between the prior preconceptions and meanings of a student in relation with a fact, concept, procedure, etc. and new meanings provided by the teaching-learning process. Thus, cognitive conflict becomes fundamental factor for making learning more dynamic.

In order for a cooperative group to function, at least the following elements must be included (Kagan, 1994):

1. Changing from a competitive reward structure to a cooperative one. This expression is in reference to consequences for student success being based on

how well other students do. In a competitive-learning environment, student success depends on doing better than their peers. The opposite is true for cooperative learning, in which student success is mutually beneficial. Lastly, individualized reward structures are given when student achievement is completely independent of that of their peers.

2. Changing from a structure based on individual work to a task structure based on students interacting in small groups.

3. Changing from a structure in which authority is centralized in the teacher to one in which authority rests with the class.

However, when working in groups one often confuses the more traditional way of working together with the proposal of cooperative-learning teams. The difference between the two is nonetheless notable, as seen below.

COOPERATIVE-LEARNING TEAM	TRADITIONAL LEARNING TEAM
Positive interdependence	No positive interdependence
Personal responsibility	Personal responsibility not ensured
Cooperative abilities taught directly	Cooperative abilities worked on spontaneously
Shared leadership and division of responsibilities	Leadership imposed. Responsibilities not necessarily divided
Every member contributes to their team's success	The team's success sometimes depends on the contribution of only one or a few of its members
Observation and feedback by the trainer in the group, which works cooperatively within the class	The trainer does not follow, or only occasionally follows, the development of the group work
The team reviews how it functions and proposes objectives for improvement	The team does not systematically evaluate whether it is working

2.1.2. PEER TUTORING

The teacher has noticed that after having explained personal pronouns some of the students have gaps in terms of them and their use. They understand that it is a complex topic which is fundamental to the students' learning. Instead of repeating the explanation, they suggest the following:

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"We're going to spend a little more time on personal pronouns. Now you're going to work in pairs. One of you will be the teacher and the other the one the student. The teacher has to explain, using other words and other examples, what pronouns are and how to use them. The classmate playing the role of student can ask their partner, the teacher, any question they may have about the topic.". After this, the teacher assigns the students to their partners and the activity starts.

The strategy used by the teacher in this example is peer **tutoring.** They relied on their own students to examine the topic being taught in more depth. With this technique, some students help the others. The relationship established between the partners is complementary and asymmetrical. It is based on the differences between them. The teacher had decided on the composition of the pairs beforehand, aiming to pair students with a solid knowledge base of the topic with those who do not.

It is precisely multigrade classrooms which often have students of different ages, and therefore at different levels of maturity and cognitive development, as well as a wide range of knowledge; this presents students with the opportunity to teach one another.

Peer tutoring is a variety of cooperative learning based on the creation of student pairs with an asymmetrical relationship and common, shared, and known objective. This strategy aims to adapt itself to the individual differences by establishing

a didactic relationship between the participants. One of the students plays the role of teacher, and the other that of student. The teacher teaches and the student learns (both functions can be switched); this relationship is normally guided by the trainer (Topping,2015).

Many abilities are put to use by peer tutoring. Not only does it solve a learning problem, it also strengthens social interaction. Both students benefit from this relationship. The student-teacher further expands their knowledge of the topic, while working on communication and organization skills, among others. The student playing the role of student receives individualized attention aimed at clearing up any doubts they may have about the topic.

The advantages for the student-teacher may be summarized as:
- An increase in involvement, responsibility, and self-esteem.
- Greater content and task control, and improved organization of what they know in order to be able to transmit it.

- Being aware of their own learning gaps and mistakes and the detection and correction of their partner's.
- Improved psycho-social and interaction abilities.

For the student, the benefits are centered around:

- Academic improvement (increase in study time, motivation, and attendance).
- Greater psychological adjustment (decrease in anxiety, depression, and stress).

- What should be considered when organizing peer tutoring?

It has been shown that in order for peer-tutoring sessions to be successful, the following conditions must be met:

1. Each session must be very structured, which means having to clearly explain the contents and the steps to follow.
2. Tutorial contents must flow from what is being worked on in class; in other words, they must be directly related.
3. You must ensure that each content and each ability have been learned before moving on to the next ones.
4. Sessions must be short (approximately half an hour) and continued.

2.1.3. PROJECT-BASED LEARNING

> Today, the teacher arrives in class and says:
> *"Based on what we have been studying about the culture of our surrounding, you will have to do a group project. Now is the moment for each group to decide which topic they wish to work on. You will have to do research outside of the classroom, in other books, asking professionals, observing, etc. The project must be written, in a dossier with accompanying pictures. Lastly, you will have to defend this project in public, presenting it to the resto of the class".*

Through work projects, the teacher allows each group to adapt the contents to their interests and to self-manage what they are going to do and how they are going to do it. Projects also make it possible for groups to be mixed, and multi-level. Thus, each project will follow a different path, depending on the approach of each group and their needs. One of the active-participative methodologies which can be used to strengthen pedagogical benefits in classrooms with students of different levels is Project-Based Learning (ABP in

Spanish). The roots of this approach can be found in the constructivist approach of psychologists and educators such as Vygotsky, Piaget, Bruner, Kilpatrick or Dewey. Project-Based Learning is a holistic, systematic, reflexive, and meta-cognitive work and learning method based on a question or challenge. It means performing a group of activities oriented around resolving said question, problem, or challenge, involving the student in the design and planning of the learning process, decision-making, and in the development of inquiry, exploration, and research processes (Duch, Groh, & Allen, 2001). At the same time, it promotes autonomous work, involving the creation of a final product which is presented to classmates and teacher.

2.2. How can we put it into practice?

Project-based learning is a methodological resource which involved organizational changes in the classroom along with the making of important decisions in the area of planning. Each project follows a distinct path and is planned in function of the interests, prior knowledge, and experiences of the students.

Los Olivos is a rural unitary school which does project-based work. Everyone participates, from the youngest students (three years old) to the parents and other members of the educational community.

An assembly is held in order to choose the projects, with problems or challenges to be addressed being selected by a vote. Students think and reflect about which topics they would like to work on for the two days prior to the assembly. These ideas are added to a common blackboard so they can be shared with classmates and so that everyone can start to think about the same ones.

At the assembly, each student who wishes to may present their ideas, stating the reasons why their proposal should be voted for and indicated what it can offer the students of different levels in the classroom.

Normally, a series of steps is followed; it is not a good idea to be rigid with this:

1. Select a topic which be done be done either only by the students or through teacher suggestions. It is recommended that you begin by

presenting a simple question (When did electric light come to cities? For example) which involves a challenge, the interconnection of diverse disciplines (physics, social sciences, art, literature, etc.), and creative and collaborative work by the students.

2. Identify what students know about the topic: what do the students know about the selected topic?

3. Identify what students what to study about: What do we want to know about this topic?

4. Start to collect information about the topic: Students start to look for information to solve the 'problem-challenge' in question.

5. Start to synthesize what has been learnt. A work index or conceptual map about what has been learnt and how is created. You can also create a content map, making what has been learnt available to all.

6. Communicate this information through a variety of methods and creating products based on the work. The end of the project can be a time for different activities, such as chats between families and students, the showing of a video, or the exhibition of the work and murals created during the project, etc.

7. Evaluate the entire process.

DO IT IN YOUR CLASSROOM

Although these three strategies seen above are undoubtedly very beneficial, they also present some difficulties for both the students as well as the teachers which ought to be reflected on. Classroom diversification means leaving your comfort zone and taking on a spirit of inquiry and critique with regards to reality itself and professional activity.

The examined strategies mean teachers have to change how their classrooms are controlled. Some teachers feel they have les control in class and that the time needed is greater when traditional methodologies are used. Furthermore, students using these strategies can present difficulties when interacting with peers, accessing and creating information, and with time management.

Think about the three proposed strategies and consider how they could be used in your classroom. Would any of them be useful to you as a teacher? Why? Can you make a map pointing out the advantages and disadvantages of them within the context of your own situation?

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TO LEARN MORE

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