

1) Self-Organized Learning Environment (SOLE)

Self-Organized Learning Environment is a methodology where students are free to learn collaboratively using RACHEL or the internet.

The educator raises a big question and the students form small groups to find an answer. During the session, students are free to move around and share information or change to another group at any time. In doing so, they learn that there may not be a single correct answer to the big question. Toward the end of the session, each small group has the opportunity to share what they learned. SOLE sessions are characterized by promoting discovery, exchange and spontaneity.

Benefits for children

- Motivation: Children are self-motivated because they get to work and share interesting ideas with their friends.
- Collaborative: Children learn first to socialize before they internalize knowledge. Learning with a group also helps to develop memory and social skills.
- Curiosity: All people are born with an innate sense of curiosity. Students build their own understanding of new concepts by relating them to other concepts they already know.
- Open Mind: Children are able to learn faster than adults, especially when they are in a flexible environment where they are encouraged to experiment and make mistakes.
- Transforming: Children have the ability to think critically and change their environment.

Skills for teachers

- Encouragement: The most effective teachers are great companions, collaborators and supportive guides who promote independent learning in students. Access to the internet or offline content can help students explore more, and gives them the tools to respond to almost any question. This encourages them to build confidence and continue solving problems themselves.
- Patience: It may take longer for teachers to feel comfortable with this new technique and for children to adapt to a new way of learning. If in the beginning there is no success, keep trying and don't give up!

Items and other considerations needed for SOLE

- A computer or tablet for each group of 3-5 students
- Computers must be connected to RACHEL or the internet
- Paper or notebook and pen or pencil to take notes
- Students should be able to read and share information
- Time may vary from one to two class periods depending on the question

Steps for a SOLE session in the classroom

- Create a dynamic environment: It starts by telling a little story from which the question originates.
- The Great Question: A question is presented according to the school's content or to the community, one that will raise interest and curiosity in children. This is an important task and therefore a good question should be chosen.
- Form groups: Students form groups composed of three, four or five members. The spirit behind forming groups or teams is to generate, collaborate, share, and build knowledge. In each of the groups, it is important that members get organized. The participation of all groups should be encouraged and facilitated by a student coordinator chosen on a classroom level.
- Investigation: Groups investigate on RACHEL, the internet or other mediums, content and information related to the Big Question. Members of each group have the freedom to change groups, talk to other groups, and observe each other's work.
- Building an answer: Participants build an answer based on their research. They can present their findings in drawings, diagrams, mind maps, or other ways. They can also rehearse their presentation.
- Presentation: Groups present or exhibit what they learned to their classmates. Invite them to share their learnings with the other groups..

Why create a SOLE?

These are just some of the ways in which people can benefit from SOLEs:

Teachers	Students
<ul style="list-style-type: none">● Get better results when presenting big questions.● Become more aware of student interests, and can therefore adapt their teaching accordingly.● Cultivate a learning culture powered by curiosity.● Connect to students, improving personal relationships and establishing harmony and community within the classroom.● Enhance their understanding about how much students can learn on their own.● Share their students' process of discovery through an active and engaging learning environment.	<ul style="list-style-type: none">● Learn to take ownership over their learning experience.● Improve reading comprehension, conduct, language, creativity and capacity to solve problems.● Improve their computing skills.● Develop learning habits for life.● Boost their memory capacity.● Strengthen public speaking skills.● Improve the ability to complement what they already know in discussions both inside and outside the classroom.● Develop a more trusting relationship with teachers and adults in general.● Increase motivation to learn about different topics and ideas.

Suggestions

- The teacher's task is minimal and should remain in the role of a facilitator. When necessary, guide the process and be present, observing and encouraging the students' achievements.
- Whenever possible, let students discover their own answers. If students keep asking questions of you during the investigation, encourage them to utilize the resources available to them (e.g. research, reaching out to peers, etc).
- If the students have issues reading material they find in RACHEL or the internet, you can provide them with ideas or techniques on how to identify the information, but without giving them the solution.
- If a student gets distracted or bored, ask the classroom's coordinator if there's anything he or she could do to motivate the distracted student. You can also

remind everyone they are free to switch groups at any time and move around freely.

- Promote perseverance and the search for alternative solutions. Remember, many big questions can have more than one one answer.
- If an entire group is off task, ask the classroom coordinator to remind the students of the remaining time they have to answer the Big Question. If the group fails to complete the assigned task, have them determine what went wrong and how they intend to work in the next session.
- Presentations can be done in a following class, when time allows.
- If a group arrives at an incorrect answer, don't worry, ask the group how they reached that answer and to share their sources.
- Always ask students to explain their findings in their own words instead of repeating what they've found verbatim.
- If you need to give the coordinator any suggestions, do so away from the students.
- Computers with big screens are better since they facilitate teamwork among students and make it easier to see what they're doing.
- Have a board to write questions or comments.
- Have signs or flip-charts with markers for the students to present their findings.
- Feel free to experiment by making changes to the structure of SOLE.

How to present an inspiring Big Question

The best thing for you is to pose a big question that inspires students to investigate and formulate possible answers related to the place where you live. However, the community from the School in the Cloud has a list of great questions that you might find interesting. Some of them are:

- Why do we have two lungs?
- If we were to find life on Mars, how do you think it would look?
- How do you think our communities will be in the future?
- How do people decide what clothes they wear?
- How do we remember and why do we forget?
- How does an SMS (text message) travel from one phone to another?
- Why do we always see the same side of the moon?

Learn about other big questions at <https://www.theschoolinthecloud.org/sole-stories/>

Activity: The story of the dogs (teenagers)

Estimated duration: 2 hours

Start with a story

On the way back home, around dusk, I came across three dogs on the street. One of them was big, with straight black fur, small ears and a very short tail. The second dog was very small, with long ears covering its eyes and fluffy white fur, and it almost looked like a pillow. The third one was a mutt, slim, brown, with a small face, medium ears and a long tail. Suddenly I started thinking, why are there so many different kinds of dogs? What's the reason? Where do all these different dogs come from?

Pose the Big Question

Now I want you to help me answer the first question. Why are there several different kinds of dogs?

Form groups

Form groups of three, four or five students. Pick a leader inside each group and invite the groups to search for answers to the question. The teacher/facilitator works as a classroom coordinator. Each group gets a computer connected to RACHEL to investigate on Wikipedia or in the different modules from the library and sheets of paper to write down the answers they found.

Investigate

The participants use the Wikipedia library found in RACHEL by writing in the search engine keywords like: dogs, canine breeds, dog show, dog's origins, dog training, etc. With each search they will find answers that they could write down.

Build the answer

The facilitator asks all the groups to build a response based on the information they have found. She/he also indicates they could make use of the flipchart, pencils, markers, masking tape, scissors, and newspaper to present their answer.

Presentation

In the presentation, observe how each group chooses different ways to present their work. When we did it, some presented by singing and dancing, some through drawings and others through a story.

Weekly Usage Plan: The Story of the Dogs

Date: From ___ to ___	Subject: Different Dog Breeds	Grade: 5th Primary School
<input type="checkbox"/> Maths	<input checked="" type="checkbox"/> Communication and Language L1	<input type="checkbox"/> Civics
<input checked="" type="checkbox"/> Natural Sciences and Technology	<input type="checkbox"/> Communication and Language L2	<input type="checkbox"/> Productivity and development
<input type="checkbox"/> Social sciences	<input type="checkbox"/> Communication and Language L3	<input checked="" type="checkbox"/> Artistic expression

	Monday	Tuesday	Wednesday	Thursday	Friday
Where to find it in RACHEL?	On Wikipedia		On Wikipedia	Health and Medicine: Illustrated Health Encyclopedia	Library / Multimedia / Videos
Activities	Using SOLE methodology, investigate: Why are there different kinds of dogs?	Presentation of the work carried out by the students.	Investigate and relate the main characteristics of living beings with at least two kinds of dogs.	Why vaccinate a dog against rabies?	Make an Origami paper dog.
Resources	Computers, bond paper or flipchart, markers, pencils, notebooks.	Table, labels, markers.	Computers, bond paper or flipchart, markers, pencils, notebooks.	Computer, Wikipedia, notebook, pencils.	Computer, speakers, construction paper, scissors.
What to reinforce?	Breeding factors, climate, adaptation, and mating.	Reward them all by taking pictures of each one.	Adaptation of dogs for certain tasks, for example: Police dog.	Symptoms of rabies in a dog	Following guidelines.

Remarks: Starting Wednesday, activities are to complement the SOLE developed on Monday and Tuesday.

Skills Gained

- ✓ Identifies living being's characteristics and the influence of different factors in their evolution and development.
- ✓ Utilizing oral communication in the exchange of ideas, information and opinions.
- ✓ Utilizing technological tools to research information and solve problems.