Looping

Reverse pedagogy for the SDGs

PEDAGOGICAL GUIDE

Looping is expected to engage students, teachers and academics in co-creating knowledge and thus to improve awareness and understanding of the 17 SDGs.

- The **Sulitest mission is to support expanded sustainability knowledge, skills and mindset** that motivates individuals to become deeply committed to building a sustainable future and to make informed and effective decisions.
- To fulfill this mission, **online tools** are developed and provided free of charge on the platform Sulitest.org, including a Sustainability Literacy Test and a quiz **to improve understanding of the 17 SDGs**.
- **Looping is a pedagogical interface** to crowd-source the content of these tools with students or other stakeholders in a reverse pedagogy mode.

A tool by

Sulitest.org
Sustainability Literacy Tools & Community

With the support of

SDSN France

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And a big thanks the Sustainable Development Solutions Network (SDSN) for their support.

CONTEXT

- The Sulitest platform provides numerous tools that raise awareness among students (and to a certain extent, employees and managers). More than 150.000 users have taken the test, which is recognized as one of the follow-up tools of the Sustainable Development Goals (SDG) supported by the United Nations, and by 40 international networks (www.sulitest.org)

- The tools provided by Sulitest.org are a solution to teach students about the SDGs, to assess prerequisites, to engage discussions in a classroom, to show trends on the understanding and appropriation of global stakes by a group of students (cohort, group or country-wide), as well as a mean to understand students' expectations towards sustainability in a specific institution (customized mode).

- Several Universities are taking part in the development of Sulitest.org and testing the use of the platform to organize work sessions with their students. It is used either as a learning tool (awareness raising, reversed classes, co-creating knowledge by writing questions that may end up in the database of Sulitest), or as a checking tool at the beginning or end of a session in order to estimate the students' knowledge. Looping by Sulitest is a tool designed to organize sessions of reversed pedagogy by co-creating questions addressing the challenges of the SDGs.

- This pedagogical interface is collaborative, multilingual and available for higher education professionals or SDG ambassadors worldwide. This platform offers teachers and trainers a set of tools that are promoting SDG learning in specific or general courses and contexts. It offers interactive tools and « ready to use » pedagogical kits, containing resources for preparing and facilitating a course. Applicable to various subjects, the tools are easy to integrate into different educational scenarios (reversed classroom, peer evaluation, knowledge checking…).

REVERSE PEDAGOGY FOR THE SDGs

A. *Why use reverse pedagogy?*

Sustainability and the holistic approach of the SDGs are a perfect example highlighting the limitations of traditional « top down » pedagogy. If the facts and figures of sustainability challenges are well documented, addressing sustainability challenges requires facing complexity, using creative thinking to find innovative solutions to complex challenges where the background knowledge is not necessarily stable and agreed-upon. Moreover, facing sustainability challenges requires multi-disciplinary and coping with a fast-evolving reality. In essence, pedagogy for the SDGs requires continuous adaptability, critical thinking and an ability to question ourselves, what we know and the way we learn, asking the good questions rather than trying to find a simple or unique solution to a complex issue.

Active learning is a way to overcome the passive role of learners and to start co-creating knowledge and pedagogical experience. Learners become actors of their pedagogical experience and change agents to answer to the pressing challenges of sustainable development. Active pedagogy is also a way of spreading the potential to create solutions from a vision focused on experts to a vision that includes the new generations.

B. Who is it for?

The pedagogical scenario can be used both for a curriculum specifically dedicated to the SDGs or for connecting a specific discipline or expertise to the SDGs, without limitation in terms of discipline or graduation level. A looping is a session organized by a **facilitator** (professor for instance) who invites **participants** (students for example).

C. Interest of this method

This method proposes a pedagogical experience where learners question existing knowledge, where they play an active role in co-creating new knowledge and where they question themselves and use critical thinking in a peer evaluation process.

Asking the good questions is a pedagogical experiment where learners will have to deal with key concepts, source the information, explicit the key argument and formulate a learning statement that comes with each question. By delivering relevant questions, they are in a position where they become the knowledge transmitters.

One of the major interests of this method is to make participants work in the popularisation of knowledge (especially scientific) and in the synthesis of priority information. The method also allows learners and teachers to use the result of their work as a concrete contribution to an active movement working toward the achievement of the SDGs by feeding the Sulitest question bank.

D. Modality

Looping has been successfully used in a face to face mode as well as in distance mode with both individual work (research and writing) and collective work (co-production of questions, exchange ...). When creating the looping, facilitator have access to potential resources to prepare their looping. This includes example of formats used in a specific case (course at Kedge Business school) as well as links to resources that can be shared among the participants during their research / writing of question. To these "basic" resources, facilitator has the possibility of adding additional documents depending on the subject being treated (report, study, internet link, etc.)

E. Goal of a “Looping session”

Organizing a looping allows a facilitator to bring out the key elements of a specific topic, to attach a particular expertise (marketing, supply chain ...) to one or more SDGs, or to better understand one or more challenges related to the SDGs (sustainable city, biodiversity, etc.). To do this, participants are invited to produce **a set of key questions related to this issue**, **to which a stakeholder** (a decision maker, an elected official, an engineer, a student, etc.) **should know how to answer in order to make informed decisions**.

ORGANIZATION OF A LOOPING

The agenda should be adapted by the facilitator depending on the context. For example, if a face to face looping comes at the end of a course where the key concepts have already been discussed, the first steps can be summarized in a quick introduction. Whereas, if the looping session is designed as a unique workshop, it is recommended to take more time to collectively choose the key subjects and to identify the relevant sources to cover before starting to draft questions. In the same spirit, if the session is done in distance, the personal research work can be more important and probably guided according to the target audience.

The number of working groups, of topics to cover, of questions to create can of course be adapted depending on the size of your cohort.

A. Logistics

- face to face Looping: a room where participants can form working groups (6 participants per team ideally and 10 participants max) with at least two computers connected to the internet per groups.
- Distance looping: the looping platform works well on any computer and tablet without any technical prerequisites but not on mobile device. A distance session requires the use of a videoconference tool (not included in the looping platform). Before one starts the looping session make sure, that all the digital tools are ok to be used (for instance checking the Wi-Fi).
- In some cases facilitator may communicate in advance of the session to participants, explaining the goals & methodology of reverse pedagogy or pre-reading documents.

B. Session duration

From 2 hours for an awareness-raising session, to a few days to produce a usable set of questions.

C. Facilitation of a session

Whether the loopings are face-to-face or in distance, the role of the facilitator and the tools made available to the students are key for the success of the session.

The organization of a looping requires, in addition to the production of usual presentation tools (PowerPoint for example), the compilation of relevant sources, which will guide the documentary research necessary for the participants to create the questions.

Looping recommends also to use four major trustable and relevant resources/tools on SDGs:

- The other Sulitest tools, with for instance the organization of a test session (with the core module and some specialised module) upstream of the looping.
- the Global Sustainable Development Report produce by the Division for Sustainable Development Goals (UN DESA) is prepared by the Independent Group of Scientists appointed by the United Nations Secretary-General and could be really useful during the question writing phases (documentary research),

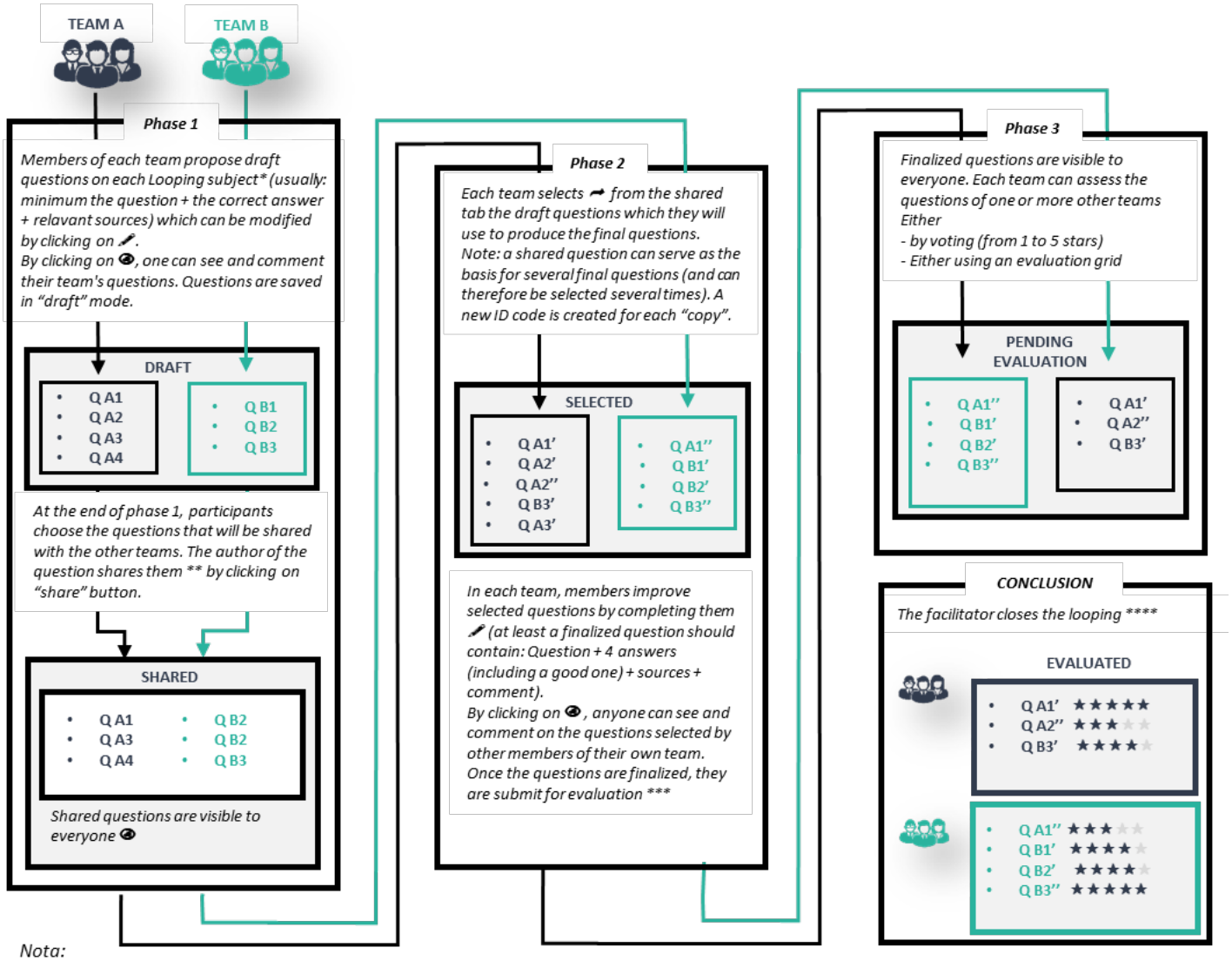
- And two Free educational resources from the world's leading experts on sustainable development which could be very useful for deeper learning after the looping session:

SDG Academy done by the Sustainable Development Solutions Network (SDSN) and SDG learn developed by UNITAR and UNSSC.

D. Looping Phases

As presented in the few concrete examples below, the introduction of the session, the key concepts and the selection of the key subjects that the questions will cover depend on the context in which the looping takes place.

Whatever the organizational methods, the architecture of a loop remains structured around 3 key phases:
- phase 1: production of draft questions as a team and sharing with the other groups
- phase 2: final questions rewriting
- phase 3: peer review & conclusion



Nota:
** it is up to the facilitator to request, or not, a minimum of questions in phase 1 and 3*
*** questions are "moved" from Draft to Shared status (and therefore disappear from the draft tab when they are shared).*
**** Same from selected to Submit for evaluation*
***** the choice of the evaluation mode is made during the creation by the looping facilitator*

EXAMPLE OF REAL FACE TO FACE LOOPING

A. Context

Looping conducted at the end of a course aiming to connect the Principles of Economics to the SDGs at KEDGE Business School (France). All those students have previously taken a Sulitest test session with the Core module (see www.sulitest.org).

B. Expected Outcome

“the twenty to thirty questions that every graduate student should know in order to connect economics to the SDGs”

C. Population

50 Master’s degree students (10 working groups).

D. Material

The slides of the professor are attached to this user guide as an example.

E. Logistics

One table with two computers for each of the 10 working groups of 5 students.

F. Session duration

Two 3-hours sessions.

G. Agenda

- ***Opening***
  1) *Introduction of the session.* ***0 – 15 min***

Pedagogical objectives and method: reverse pedagogy, engage in active learning to co-create relevant questions that can be used in the platform Sulitest.org
Agenda and method: working groups and Looping by Sulitest

2) *Introducing the key concepts of the session.* ***15 – 40 min***

Fundamentals of Economics, why do we need to rethink economics to face the complex challenges of the 21st century? 3 key dimensions: pluralism, social justice, sustainability. Introduction to the SDGs and the need for a holistic approach.

3) *Quiz SDGs by Sulitest.* ***40 – 60 min***
4) *Selection of the key subjects that the questions will cover (nota: this discussion could have been conducted in a previous session of the course)* ***60 – 120 min***

Brainstorming in each group: discussion of the subjects, search for relevant sources (30 min). Each group shares 3 major subjects, discussion to cluster similar subjects (20 min)
Vote on the list of XX topics that will be covered during the session (10 min)
In the example of Kedge, the facilitator has asked to select (vote) a list of 3 subjects: S1: wealth and well-being measures; S2: responsible production, consumption and innovation; S3: Globalization and Trade.

- ***GENERATING "RAW MATERIAL" - 120 / 180min***
  5) *Phase 1: Draft questions.*

Each group identifies 1 or 2 writers who will be the author of the question on the platform.
Each group drafts 1 question per subject (draft means at least the question, the correct answer and the source)

6) *End of Phase 1: Shared questions*

Each group shares 1 question per subject with everyone (all other groups)
3 questions per group / 30 shared questions in total

- ***LUNCH BREAK***

Advice: restart by asking few volunteer groups to share one example of draft question: why this question? What is the key learning statement expected? Is the source relevant?...

- ***PRODUCING QUESTION 0 – 75 min***
  7) *Phase 2: Select questions*

Based on the shared material, each group selects questions to create two finalized questions per subject (finalized means the question, all the answers, the source and the learning statement)
6 questions per group / 60 complete questions in total

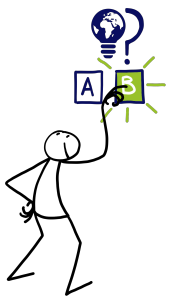
- ***REVIEWING***
  8) *Phase 3: Evaluate questions (2 options with 2 different durations)*

Option A: 45 min

The students vote on the questions (the facilitator decides which group votes on which questions). 20 min
Discussion on the results of the vote. 20 min
Wrap-up and conclusion. 5min

Option B: 105 min

The students evaluate the questions with an evaluation grid (peer evaluation). The facilitator decides which group evaluates which questions. 45 min
Collective discussion on the results of the peer evaluation. 45 min
Wrap-up and conclusion. 15 min



EXAMPLE OF A DISTANCE LOOPING

A. Context

At the occasion of the IUCN conference and the COP15 on Biodiversity, Sulitest launched an expert group (CDC Biodiversity, WWF, LPO, FRB, French Ministry ...) in order to produce a specific module on Biodiversity.

B. Expected Outcome

The ultimate objective is to produce a module of "the twenty questions that every decision maker/student (but also any citizen) should know in order to take into account biodiversity in their daily decision". As a first step, the group has decided to finalise a shorter module for a quiz session to run awareness events on these issues. The quizzes are short 15-minute sessions during which participants are invited to answer ten questions from their smartphone.

C. Population

15 experts (for this specific exercise, participants were in the same team in order to have a better interaction and cocreation)

D. Logistics

Videoconference system, online meeting

E. Session duration

Four online meetings (2h30 each), plus individual homework

F. Agenda

Foreword: a successful looping always requires a lot of exchange between the participants. In distance mode, discussion times must be formalized and led (shared speaking time...).

- ***Constitution of expert group***
- ***First meeting:***
  - ✓ *Introduction of the session. 0 – 15 min: context, objectives, method and provisional agenda*
  - ✓ *Quiz SDGs by Sulitest*
  - ✓ *Structure of questions (validation of the 5 subjects which will guide the creation of the questions set*
    1. *What is biodiversity?*
    2. *Why biodiversity is important?*
    3. *What is the problem?*
    4. *What are the causes of biodiversity loss?*
    5. *What can we do?*
  - ✓ *Platform use explanation*
  - ✓ ***Closing**: for the next session, participants are invited to create draft questions by saving them in "draft".*

- ***Homework***

- ***Second meeting:***
  - ✓ *Participants Feedback (how easy/hard is it to produce a question?)*
  - ✓ *Exchange around the structure of an existing sulitest quiz (on SDG)*
  - ✓ *Each participant has 5 minutes to write down the elements which must absolutely be integrated (that should be included for each of the 5 subjects. Round table discussion (keywords are collecting in the videoconference chat box)*
    - ✓ *All participants read draft questions and propose at least one question per subject (shared mode)*
    - ✓ *Round table discussion: Each contributor read his/her question and listen to comments*
    - ✓ ***Closing**: designation of a leader per subject whose role is to compile the 4 to 6 questions per subject for the next meeting and place them in Selected mode.*
      (remark: in this session, participants have shared their email/phone for homework period)

- ***Homework:***

- ***Third meeting:***
  - ✓ *round table: Each subject leader reads the (4, 5, 6) questions (previously selected) and each participant makes comments (oral + writing in the Looping comment box)*
  - ✓ *Everyone is invited to check if an aspect has not been forgotten (keywords of the previous meeting)*

  - ✓ ***Closing**: homework:*
    - *Finalization of questions by team-subject (phone or chat) and post 1 to 4 question per subject, 4 days before the next meeting (in "pending evaluation" mode)*
    - *Peer review: All participant will have a chance to evaluate each question (from 1 to 5 stars) and add comments. Deadline 2 days before the next meeting*
    - *Facilitator close the evaluation process, compiles the results of the assessments and selects the questions that will be implemented in the biodiversity quiz module*
- ***Homework***

- ***Fourth meeting:***
  - ✓ *Organization of a quiz with all participants. Questions will have been implemented in a (draft) quiz module.*
  - ✓ *Final comments / wrap up & conclusion*

You want to create your own Looping, participate in a Looping session or learn more about the technical functioning of the platform? Consult our step by step User Guide !

www.sulitest.org

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