

Teaching and learning the inquiry process: Lesson plan examples of integration with LEA

Anna Maria Tammaro, Maria Valero
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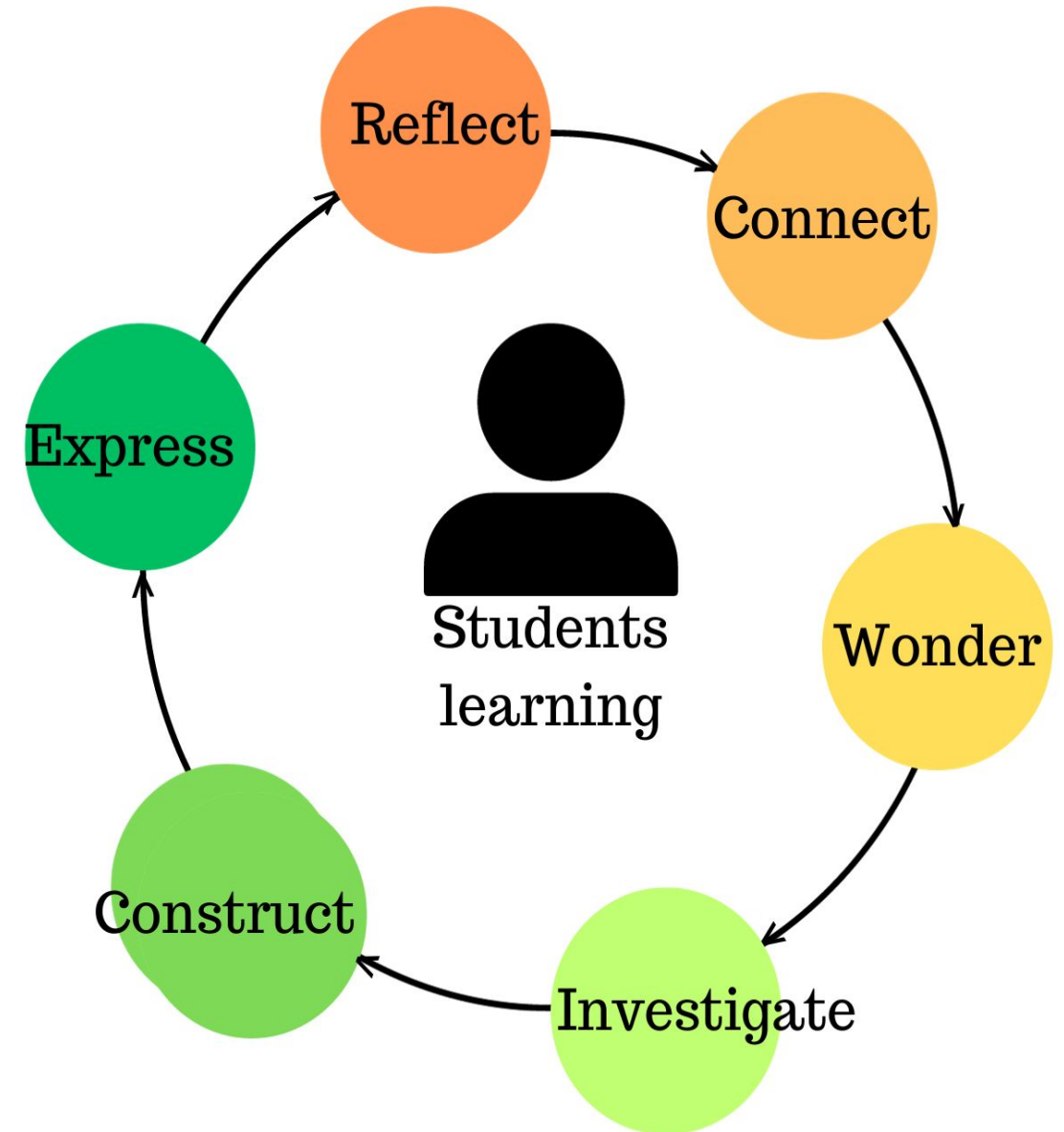
Learning transliteracy using serious games

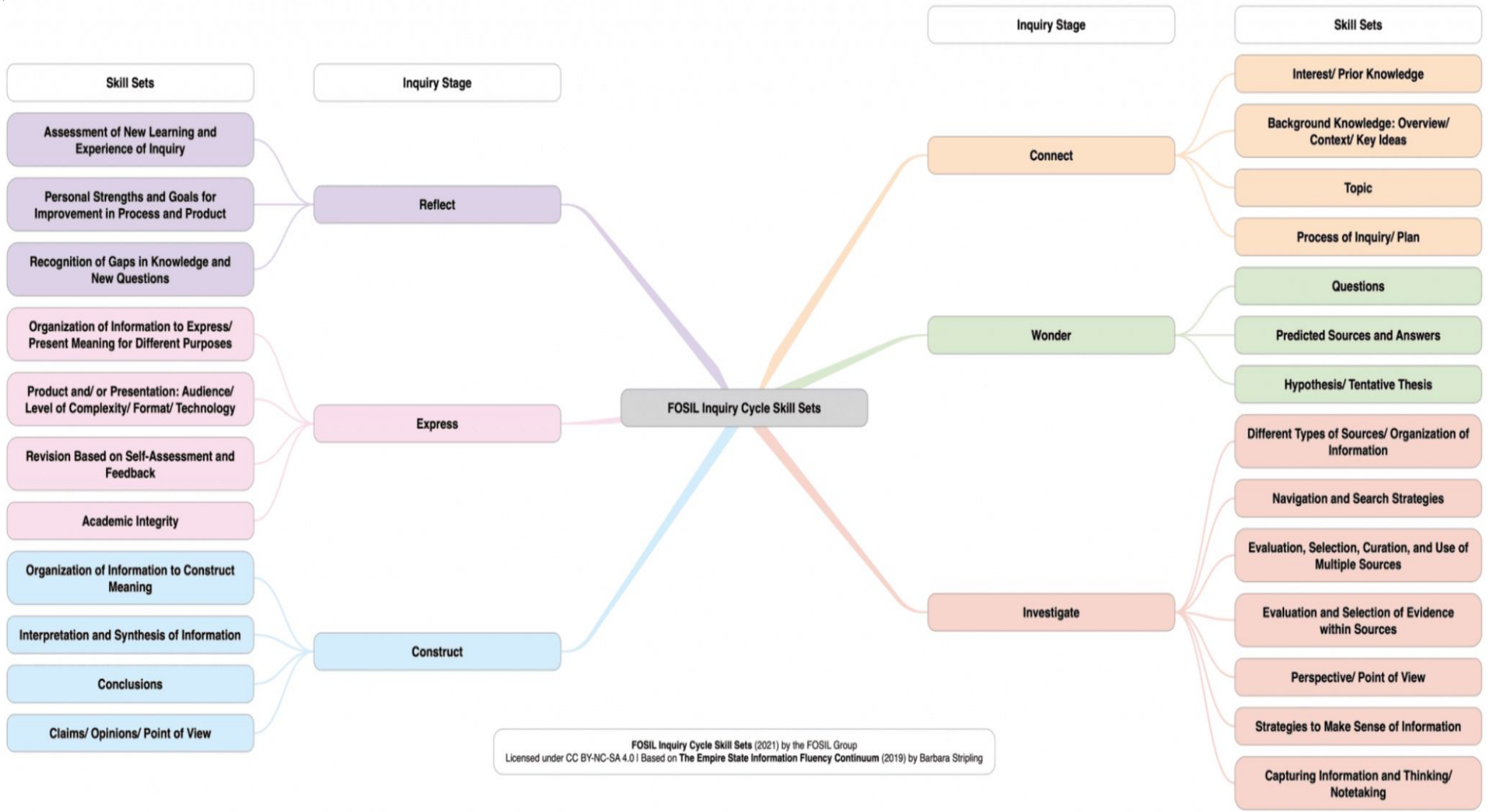
Students more active in the learning process

The structured inquiry approach is a sequential process that helps students learn how to ask questions and investigate real-world problems.

Learning outcomes

- To know the research cycle strategy
- Applying a critical thinking approach to the research process





FOSIL Inquiry Cycle Skill Sets (2021) by the FOSIL Group
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CONNECT

CONNECT COMPETENCIES: prior knowledge and knowledge gaps on the research problem

Orientation

Learning
outcomes

Orientation
Brainstorming on
knowledge gap

Simulation
training

Mind map
Find (3) KW
in research article
Define the problem

Assessment

Quizzes

WONDER

WONDER COMPETENCIES: justify research strategy and formulating research questions

Questioning

Learning
outcomes

Make hypotheses,
identify methods, ask
rich questions

Simulation
training

Ask a question that has
meaning and figure out
what you need to do to
answer it.
Challenge: procrastination..

Assessment

Earning points
through
collecting "stars"

INVESTIGATE

INVESTIGATE COMPETENCIES: finding and evaluating information and data

Collecting evidence

Learning
outcomes

Collecting data from
different sources and
experiments
Evaluate how
information and data
answer to questions

Simulation
training

Make sense by
summarizing,
synthesizing, and
interpreting information
Citation style

Assessment

Asking students to
apply those ideas
to a real-life
situation
Quizzes

CONSTRUCT

CONSTRUCT COMPETENCIES: make meaning and build new understandings

Analysing and constructing meaning

Learning
outcomes

Construct new
understandings
Draw conclusions
on questions

Simulation
training

Prepare a structured
abstract (250 words)
Challenge: Plagiarism

Assessment

Share what you have
learned and then use
the feedback

EXPRESS

EXPRESS COMPETENCIES: communicate the found evidence to target audience

Communication

Learning
outcomes

Express new
ideas and share
learning

Simulation
training

Revised outline
of research
proposal and its
significance

Assessment

Self and Peer assessment
Proving marking rubric so students

REFLECT

REFLECT COMPETENCIES: evaluating how you have worked and your results

Reflect on the inquiry process

Learning
outcomes

Reflection on
the Inquiry
process
New questions

Simulation
training

Has the problem
been solved?
unexpected
conclusions?

Assessment

Self assessment

Learning outcomes

CONNECT: what you already know and what you do not know

WONDER: identifying questions better guiding investigation

INVESTIGATE: knowing scholarly resources available and use them effectively

CONSTRUCT: building an accurate understanding based on evidence

EXPRESS: making the most compelling case given audience and evidence

REFLECT: self evaluation of your process and your results

Lesson Plan Template

Outcome

Activity	Skills	Duration

Annotating the skills in the Inquiry Process steps

Lesson Plan Template: Audio description for cultural understanding

Outcome: Understanding the meaning of images

Activity	Skills	Duration
Guided discussion	CONNECT: Visual literacy, What do we know about images, how do we interpret them	10
Video Perfect Days (Win Wenders, 2023)	WONDER: experiment a specific situation, in this case: the sunlight filtering through trees	20
Use AI about shadow effect produced by sunlight filtering through tree leaves	INVESTIGATE: we are talking about Komorabi a Japanese tradition. Use AI, at least two different platforms, ie., Bing AI or chat GPT, Openknowledge map, other.	20
Student work presentation	EXPRESS: students description of Komorabi, do they mean the same thing to EVERYONE? audio description extension to everyone	10

Inquiry Process steps: Connect, Wonder, Investigate, Express, Reflect

Lesson Plan Template: Upholding academic integrity

Outcome

Activity	Skills	Duration
Quiz https://quizizz.com/join/quiz/5d729c7c62fc87001b872ab7/start?from=admin	CONNECT Prior knowledge	5
Introduction and definition	INVESTIGATE Understanding the importance of academic integrity Learning material and handouts	10
Game https://aibg.amandalovestoaudit.com/online-version-of-the-aibg/	Develop strategies for upholding academic integrity in their career	30
Ethics and academic dishonesty	CONSTRUCT Discussion recognizing different forms of academic dishonesty	15
Quiz	REFLECT Self assessment	

Steps in the Inquiry Process: **Connect, Investigate, Construct, Reflect**

Learning material

Glossary for Academic Integrity in English

Tauginienė, L, Gaižauskaitė, I, Glendinning, I, Kravjar, J, Ojsteršek, M, Ribeiro, L, Odiņeca, T, Marino, F, Cosentino, M, Sivasubramaniam, S, Foltýnek, T. Glossary for Academic Integrity. ENAI Report 3G [online]: revised version, October 2018.

Academic Integrity Board Game

<https://aibg.amandalovestoaudit.com/online-version-of-the-aibg/>

Plagiarism and academic integrity

<https://jeopardylabs.com/play/plagiarism-and-academic-integrity>

Plagiarism

<https://quizizz.com/join/quiz/5d729c7c62fc87001b872ab7/start?from=admin>

What is the inquiry process?

<https://www.youtube.com/watch?v=QlwkerwaV2E>