

Inquiry Plan

Introduction

Teacher inquiry is a systematic process in which you investigate a new idea to implement in your teaching practices or evaluate existing ones to improve professionally and enhance student learning. It involves questioning, gathering data, analyzing results, and making informed changes to your practice. It is like doing scientific research, but it is a critical reflection where you combine your own professional observations with education theory and research.

Data can inform you about a whole range of challenges in your practice. E.g., did all students participate more actively in group work and discussions after I gave group members concrete role descriptions? Do students work better independently when I gave them checklists and prompts to verify their assignments before submitting them?

You can also collect data to inform yourself about wider school challenges.e.g., What adjustments can improve a healthier lifestyle for my students? What strategies can improve information exchange between teacher colleagues and/or parents?

It is important to plan how you will collect data to answer your questions regarding your practice. As a teacher you already reflect on how your lessons went. However, planning it in advance as an inquiry allows you to make even better decisions. For this activity, you don't need to implement your intervention, but you will be asked to define data to collect and reflect on possible outcomes and decisions for your practice.

Quick reference

Title	<i>Effectiveness of Web2Quests in developing 21st-century skills</i>
Author	<i>Sofronia Maravelaki</i>
Country	<i>Serres, Greece, Secondary Junior High School</i>
Age of students	<i>14-15</i>
Lesson subject/topic	<i>English</i>
Keywords	<i>21st-century skills, critical thinking, collaboration, ICT Literacy</i>

Summary

This inquiry investigates the effectiveness of Web2Quests in developing 21st-century skills—namely critical thinking, collaboration, and ICTL—in 2nd-grade junior high school Greek EFL learners. Through a mixed-methods approach, involving teacher observations, student self-assessments, and digital artifacts, the study evaluates skill development over two Web2Quest interventions. SPSS analysis and qualitative journals support the conclusion that students demonstrated measurable improvements in these competencies, particularly in higher-order thinking and group dynamics.

Step 1 – State your problem and question

The problem

One recurring issue in my daily teaching practice is that students often lack engagement and motivation when working on traditional, textbook-based tasks in English as a Foreign Language (EFL). This disengagement frequently results in shallow learning, limited use of English in authentic contexts, and minimal development of higher-order thinking skills. Many students struggle to think critically, collaborate meaningfully, or use technology productively for learning purposes.

My students need opportunities to develop essential 21st-century skills—critical thinking, collaboration, and information and communication technology literacy (ICTL)—in ways that are engaging, contextually meaningful, and linguistically accessible. I wanted to understand whether integrating Web2Quests into the curriculum could address these needs by offering a more interactive and student-centered approach to language learning.

I also wondered whether structured, collaborative digital tasks could help foster a classroom culture that encourages independent learning, peer support, and critical engagement with content. This inquiry is not just about improving individual student outcomes, but also about transforming the overall learning environment into one that better reflects the demands of modern education and lifelong learning.

The inquiry question

To what extent can the integration of Web2Quests in junior high school EFL classrooms enhance students' development of critical thinking, collaborative, and ICTL skills?

Step 2 – Design your intervention and evaluation

Describe your intervention (sequence of activities)

The intervention involved implementing two consecutive Web2Quest projects designed to enhance junior high school EFL students' critical thinking, collaboration, and ICTL skills. Web2Quests are structured, inquiry-based digital learning tasks that require students to search for, analyze, and transform information to complete a group project.

Steps of the intervention:

Orientation and Group Formation: Students were introduced to the Web2Quest format and formed self-selected groups of 3–5 members.

Implementation of First Web2Quest:

Students explored online resources and created a product (e.g., PowerPoint presentation) using a scaffolded format.

Students completed a self-assessment and reflected on group work.

Teacher Observation & Evaluation: *During and after the first Web2Quest, the teacher recorded group behavior and performance using a research journal.*

Implementation of Second Web2Quest:

Groups selected more complex products (e.g., interviews or quizzes), requiring deeper engagement with content.

Support materials (e.g., concept maps) were provided to aid information management and synthesis.

Final Evaluation and Reflection:

Students filled out self-assessment checklists and questionnaires (pre and post).

The teacher again observed behavior and evaluated products using rubrics aligned with Bloom's taxonomy and collaboration indicators.

Learning Objectives:

To develop students' critical thinking skills by engaging them in higher-order thinking tasks such as analyzing, synthesizing, and evaluating information.

To improve collaborative skills through structured group work that requires peer interaction, mutual support, and shared accountability.

To enhance ICTL skills through hands-on use of digital tools for research, communication, content creation, and peer/self-assessment.

Duration:

The intervention spanned approximately 8 weeks, with two Web2Quest cycles. Each cycle included planning, implementation, group work, and evaluation stages.

Assumptions/beliefs

This inquiry was inspired by my observation that traditional teaching methods in EFL classes often fail to engage students or foster higher-order thinking and collaboration. I noticed that many students were passive learners, struggling with autonomy, creativity, and meaningful use of technology. I believed that Web2Quests could provide a solution by offering student-centered, inquiry-based tasks that encourage active engagement with language and content.

My belief that this intervention would work stems from both research and classroom experience. There are studies that support the potential of WebQuests to promote critical thinking and collaboration. Moreover, my past efforts to introduce digital tools showed increased motivation and participation among students when tasks were interactive and well-scaffolded.

To develop this plan, I brainstormed by consulting academic research, reviewing relevant case studies, reflecting on my classroom observations, and discussing potential approaches with colleagues.

Teaching, learning and assessment resources (materials & online tools)

Web2Quests: Two teacher-designed Web2Quests tailored to EFL learners, including guiding questions and scaffolded instructions.

Google Forms: For student questionnaires, checklists, and self-assessments.

SPSS Software: For quantitative data analysis and visual representation (e.g., bar charts).

Microsoft PowerPoint: Used by students to create and present their findings in the first Web2Quest.

Windows Movie Maker: For video creation in the second Web2Quest.

Concept Maps and Graphic Organizers: To help students manage and synthesize information.

Online Dictionaries and Search Engines: For vocabulary support and content research.

Research Journal: Maintained by the teacher for recording classroom observations and reflections.

Blogger/Facebook (optional platforms): Used by some students to publish or present their work

Step 3 – Collected data and analysis

Data collection methods

To evaluate the impact of the Web2Quest intervention on students' development of 21st-century skills, a mixed-methods approach was adopted, integrating both quantitative and qualitative tools. The following data collection methods were used:

Self-report tools:

Student questionnaires (via Google Forms) were administered before and after each Web2Quest to assess changes in students' perceptions of their ICTL, critical thinking, and collaborative skills.

Self-assessment checklists enabled students to reflect on their contributions, group interactions, and skill development.

Classroom observations:

The teacher maintained a research journal to document classroom dynamics, student collaboration, task engagement, and behavior during both Web2Quests.

Student-created media and products:

Students produced PowerPoint presentations, quizzes, interviews, and videos, which were evaluated using rubrics aligned with Bloom's taxonomy and collaborative skill indicators. These outputs served as evidence of critical thinking and ICTL skill application.

Digital trace data:

Task completion times, group participation patterns, and digital tool usage were informally monitored during lab sessions to track student engagement and autonomy.

Assessment rubrics:

The teacher used structured evaluation rubrics to score each group's product and progression from the first to the second Web2Quest, specifically targeting 21st-century skill subdomains.

This triangulation of tools ensured the reliability and depth of the evaluation process, capturing both measurable progress and contextual insights.

Why did you choose these tools?

Digital tools such as Google Forms and online rubrics were chosen because they allowed for efficient, organized, and accessible data collection, especially given the technology-integrated nature of the Web2Quest intervention. These tools enabled real-time feedback, easy analysis through platforms like SPSS, and promoted student autonomy in completing assessments.

Moreover, digital collection aligned with the instructional goals of enhancing ICTL skills, allowing students to interact meaningfully with technology not only during tasks but also during evaluation. Teacher observations and student-created digital products provided rich qualitative insights that complemented the quantitative data, ensuring a well-rounded understanding of student progress.

How will you protect students' data?

To ensure ethical research practice, all student data were collected and handled in accordance with school policy and data protection regulations. Parental and student consent was obtained prior to the intervention, and participants were informed about the voluntary nature of the project and their right to withdraw at any time.

All personal identifiers were removed or anonymized during data processing. Data collected via Google Forms were stored in password-protected accounts accessible only to the researcher. Hard copies of student work and notes from the teacher's journal were also securely stored. No photographs, videos, or personal content were published or shared publicly without explicit permission.

This careful handling of student information ensured that participation was both safe and respectful of privacy.

Step 4 – Reflection and proposed changes

Following the implementation of the Web2Quest intervention, the collected data confirmed that students developed critical thinking, collaborative, and ICTL skills to varying degrees. While many demonstrated clear growth—especially in collaboration and digital literacy—some struggled with higher-order thinking tasks, particularly those requiring paraphrasing, summarizing, or evaluation in English, their foreign language.

One key insight from the data is the need for greater differentiation in task design. High-achieving students thrived with more complex products (like video interviews), while lower-achieving students performed better with structured formats (like PowerPoint presentations). Future iterations of the intervention should offer flexible product choices and adjusted scaffolds to better support diverse learner profiles.

In terms of data collection, student questionnaires and self-assessment tools proved effective overall, but some responses lacked depth or clarity. To improve this, future implementations could include teacher-guided reflection sessions to support more thoughtful self-evaluation.

The most prominent obstacle encountered was the students' limited L2 proficiency, which occasionally impeded their ability to synthesize information or express original ideas. To overcome this, future interventions should include pre-task language support, vocabulary aids, and more frequent formative feedback opportunities.

Licenses



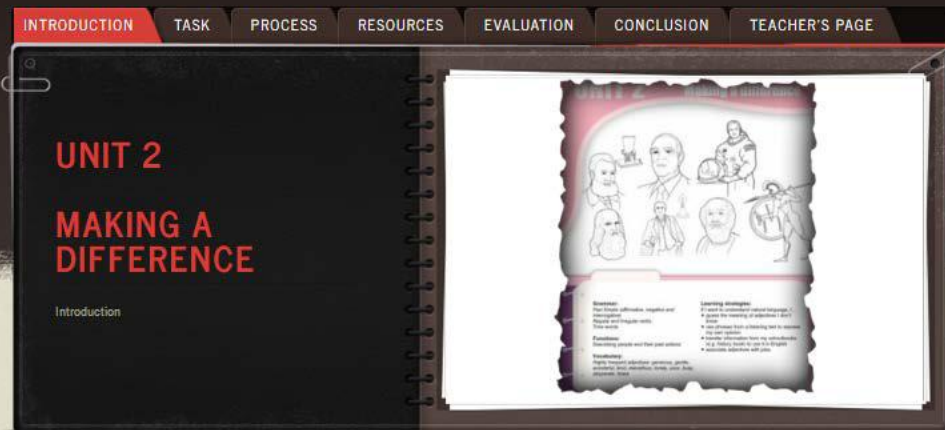
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This license lets others copy and redistribute the material in any medium or format for any purpose, even commercially; it also allows to remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as the license terms are followed.

Annex 1 – Screenshots of the 2nd web2quest

You can add in Annexes the necessary materials that can be printable, etc.

THINK TEEN WEBQUESTS



Dear students,

in **Unit 2** of your textbook you learnt some things about famous people in history. People who made a difference to society and culture with their way of life, their actions or their beliefs.

Now it's time for you to make a difference as well with your actions.

Sounds exciting?

Go to the **TASK** page to see what you have to do.

THINK TEEN WEBQUESTS



Grade B students of Iraklia's Junior High School will put on a show at the end of the schoolyear in order to raise money for a school trip to London. The money you will collect will cover the expenses of students coming from poor family background who are unable to pay for the trip.

The theme is 'Famous People in History'.

The show is called 'That was his/her life'.

What you have to do in order to start organizing the show:

- *decide which famous person in history to have the show on;*
- *why he/she became famous,*
- *what were his/her talents, his/her special skills*

AND

1. Design a **quiz** for the person you chose to work with and post it online. Share it on your class **Blog** and **Facebook**.

OR

2. Design an **interview** of the person you chose to work with and role play it with your group mates. Record it on camera and post it on your class **Blog** and **Facebook**.

OR

3. Create a **power point presentation** for the person you chose to work with and post it on your class **Blog** and **Facebook**.

Go to the **PROCESS** page to get instructions

THINK TEEN WEBQUESTS



Follow the steps:

1. Form groups of four. Give your group a name.
2. Decide on different areas of responsibility for (roles) each member of the group:
 - One responsible for collecting pictures and visuals and arranging the artwork.
 - One can be responsible for finding out about the person when they were young.
 - Another can find out what great things the person did. Another can be responsible for presenting the information to the class.

3. Create a File on your computer screen. Give the File the name of your group.
4. Download the **graphic organizer** that will help you collect the information you need and save it in your group File (**famous people in history.docx**).
5. Download the **character description document** that will help you describe the personality of the famous person you will choose to work with and save it in your group file (**character description from horoscopes.docx**)
6. Open a new **word** document and take notes, download pictures, insert them in the document and then save the document in your Group File with the name (**photos.docx**).

IMPORTANT !!

Don't forget to cite the sources: where you downloaded the pictures and the text from and who they belong to (copy-paste URLs and insert them in the document you created).

7. While you are surfing the sites, read the hypertexts in order to find the following information:

- *where and when the person was born;*
- *where the person lived as a child*
- *where and what the person studied*
- *what the person was like as a young man/woman*
- *what personal characteristics/traits he/she has*
- *what kinds of things the person did which make him or her different.*

Reading strategies:

- *scan the hypertexts for specific facts*
- *skim the hypertexts for the global meaning*
- *transfer the information to the chart*
- *summarize information and paraphrase using your own words*
- *combine the information in order to create your product*
- *use the online dictionary to help you with difficult words*

8. Choose a famous person from the ones in the **RESOURCES** page.

9. Fill in the **chart** with the necessary information, save it in your group file and

10. Plan and create your **presentation** with the Microsoft Power Point. Use the notes you have made and the pictures you have taken in the word documents. Insert pictures, text or video of the person you chose to work with. Give your presentation a name, save it in your Group File and send it by e-mail to your teacher: frynimarvel@gmail.com.

Present it to your classmates, share it on **Facebook** and post it on your classroom Blog: www.thinkteenjuniorhigh.blogspot.gr

Watch the video tutorial to see how a power point presentation is created

Watch the video tutorial of how to upload a power point presentation on **Blogger**

OR

Download the **SUGGESTED QUIZ QUESTIONS** to help you organize your quiz

Create an account using your group's e-mail, make a quiz, save it and send the

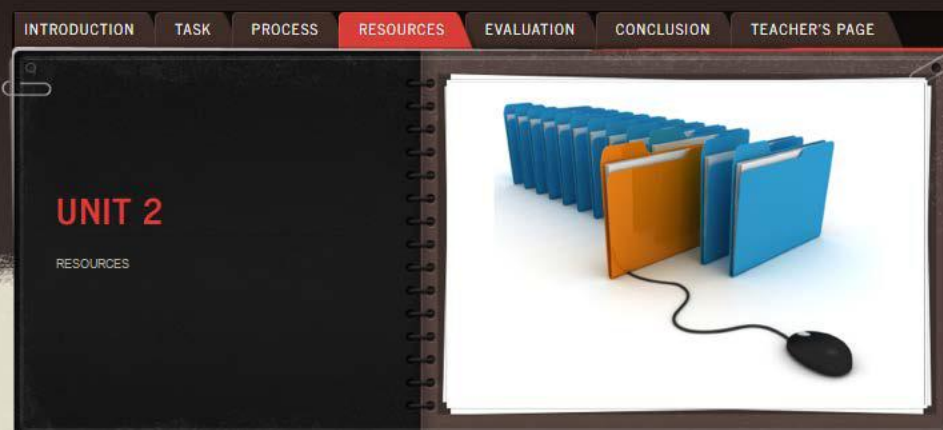
Download the **SUGGESTED QUIZ QUESTIONS** to help you organize your quiz
Create an account using your group's e-mail, make a quiz, save it and send the link by e-mail to your teacher: frynimarvel@gmail.com
Present it to your classmates, share it on **Facebook** and post it on your classroom Blog: www.thinkteenjuniorhigh.blogspot.gr

OR

Plan and write an **interview**. Download the **suggested questions** for the interview here. Save it in your group File (**SUGGESTED INTERVIEW QUESTIONS.docx**).
Discuss, analyze and evaluate the information needed. Write your interview, save it and send it by e-mail to your teacher: frynimarvel@gmail.com.
Present it to your classmates by role playing it or record it, share it on **Facebook** and post it on your classroom Blog: www.thinkteenjuniorhigh.blogspot.gr

11. Go to the **EVALUATION** page to see how you are going to be graded for this assignment. Evaluate the websites, yourself and your peers!

THINK TEEN WEBQUESTS



Use the **Word Reference Online Dictionary** to help you deal with unknown words



MOTHER TERESA BIOGRAPHY
MOTHER TERESA BIOGRAPHY
Questions and Answers on Mother Teresa
Mother Teresa TIMELINE
Mother Teresa of Calcutta - The early years
Mother Teresa's childhood and early life
MOTHER TERESA BIOGRAPHY with pictures
20 facts about Mother Teresa



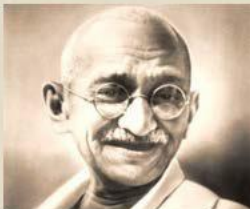
William Shakespeare BIOGRAPHY
William Shakespeare BIOGRAPHY
William Shakespeare biography
William Shakespeare facts
William Shakespeare TIMELINE
William Shakespeare's life and plays
William Shakespeare activities



Marie Curie BIOGRAPHY
Marie Curie BIOGRAPHY
Marie Curie biography, facts and pictures
Marie Curie facts and activities
Marie Curie biography for kids
Fun facts about Marie Curie
Interesting facts about Marie Curie
11 Marie Curie facts for kids



Wolfgang Amadeus Mozart BIOGRAPHY
Wolfgang Amadeus Mozart facts
Wolfgang Amadeus Mozart Biography
Wolfgang Amadeus Mozart activities
Interesting Facts About Mozart
Wolfgang Amadeus Mozart TIMELINE
Wolfgang Amadeus Mozart printable book for children



Mahatma Gandhi biography for kids
Mahatma Gandhi facts and biography
Mahatma Gandhi Biography and pictures
Gandhi - A pictorial biography with many links
Gandhi - games, videos, photos, essays
Mohandas "Mahatma" Gandhi
Some interesting facts about Gandhiji and many other links



Ann Frank Biography for kids
Quick facts about her life and other links
Ann Frank facts
The story of Ann Frank and pictures
Ann Frank TIMELINE
10 facts about Ann Frank
Ann Frank facts and biography



Nelson Mandela biography for kids
 Nelson Mandela biography and facts
 Nelson Mandela **TIMELINE**
 Nelson Mandela for kids
 Nelson Mandela activities and more
 10 thinks about Nelson Mandela
 Nelson Mandela facts and biography



Helen Keller biography for kids
 Helen Keller kids Museum - Fun Facts and quotes about Helen Keller
 Helen Keller - Childhood, Education, Young woman, world leader
 The story of Helen Keller
 Helen Keller biography (Video) and quick facts
 Helen Keller facts and information
 Helen Keller - The Perkins school of the blind - Photographs



Amelia Earhart biography for kids
 Amelia Earhart facts and information
 10 facts about amelia Earhart
 Amelia Earhart biography (Video) and quick facts
 Amelia Earhart Official Website (biography, photos, video)
 Amelia Earhart **TIMELINE**
 15 fun facts about Amelia Earhart and pictures




Leonardo da Vinci biography for kids
 Leonardo da Vinci fun facts and video biography
 Leonardo da Vinci childhood and later life
 Leonardo da Vinci – 53 Interesting Facts
 Leonardo da Vinci Biography
 Who was Leonardo da Vinci?
 Leonardo da Vinci - Early life and later years

THINK TEEN WEBQUESTS

INTRODUCTION TASK PROCESS RESOURCES **EVALUATION** CONCLUSION TEACHER'S PAGE

UNIT 2

This is how your work will be evaluated: **evaluate web pages**, **evaluate yourself** and **evaluate your peers**, before your teacher's evaluation. Have a go!!!



1. Evaluate a Website from the **RESOURCES**:
 Download the following **Website Evaluation Checklist**, save in your group File and answer the questions.

2. Plan & Create your **power point presentation** using
rubric 1 (in Greek)
rubric 1 (in English)

3. Evaluate your **power point presentation** using
rubric 2 (in Greek)
rubric 2 (in English)

OR

Evaluate your **quiz** using
Quiz Evaluation Rubric in English
Quiz Evaluation Rubric in Greek

OR

Evaluate your **interview** using
Interview Evaluation Rubric in English
Interview Evaluation Rubric in Greek

CHECKLISTS

4. Evaluate this WebQuest for developing your:
Critical thinking skills
Collaboration skills
ICTL skills

THINK TEEN WEBQUESTS

INTRODUCTION TASK PROCESS RESOURCES EVALUATION **CONCLUSION** TEACHER'S PAGE

**UNIT 2
FAMOUS INDEED**

Hoping that the project was something that made sense, I close this quest with the following words:

conclusion

With the completion of this WebQuest I hope you have gained experience in doing research to gain facts, in reading for specific information, in using the Simple Past Tense and in constructing something new and original, completely yours.

It is also hoped that the information you found has given you a new expanded view and insight about famous people in history, people who contributed to the society and to our civilization with their work and should serve as role models for all of us, young or old.

Hoping that this webquest will encourage you to ask questions and seek out the answers I cite the following resources for further inquiry and investigation. You can also gain more insight in the lives and work of these people by watching the movies filmed especially for them.

Have fun watching and researching!