

# The Road to Literature

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A project of design, implementation and research

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## Abstract

In this project I explore the potential of a knowledge building computer supported collaborative learning environment to help high-school Israeli students of English to be more open-minded, with this being measured in terms of learning culture. The poem “The Road Not Taken” by Robert Frost was taught in such a framework with the aim to develop Higher Order Thinking Skills, make literature come to life, and ultimately change cultures of learning. The theoretical bases comes from the social-constructivist approach and relies on the connection between context, culture and language, thus making the creation of social infrastructures essential for the collective improvement of ideas. The design of the learning environment includes the key components required for the teaching of English literature in Israeli schools and scaffolding is provided for the progressive learning of the poem. Authentic material, shared resources and multiple social platforms for collaboration within the class and also for an occasional international collaboration are provided in this design. The implementation called for a process of enculturation, which yielded a positive atmosphere in the class. Four case studies were the focus of the research, and the findings revealed two patterns of acceptance of the new learning culture equally distributed: adoption and conflict. Three main obstacles for adoption were identified in all interviews: the prevailing learning culture in the school system, the lack of students’ willingness to invest an effort beyond the classroom, and a grip on what is familiar to the students and gives them a feeling of certainty.

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# 1 Introduction

This project does not only sum up my pedagogical beliefs, but it takes the work I have been doing in the last few years onto the next stage as it combines two of my passions: the teaching of English literature and collaborative Internet projects.

Looking for ways to teach English in a meaningful way has always been my goal since I was first exposed to the communicative approach (CLT or communicative language teaching) in my training as a teacher. After all, English is a language which is meant for communication. In fact, the essence of CLT is the engagement of learners in communication in order to allow them to achieve the ability to make meaning and interact with others (Savignon, 2007). A few years ago it dawned on me that the advent of technology, that has turned our world into an interconnected one, would have a great impact in learning in general and the learning of English in particular. Actually, some of the changes in focus in the world are reflected in a new curriculum for the teaching of English literature introduced by the Ministry of Education (English Inspectorate, 2013). The teaching of Higher Order Thinking Skills (HOTS), bridging activities (for the connection of text with context) and reflective practices have become a requirement. Since the introduction of the new curriculum, I have developed materials for the poem “The Road Not Taken” written by Robert Frost which have undergone two iterations. This time I want to place particular emphasis on the collaborative element since I believe that students can gain new insights of a piece of literature and learn English better as they study collaboratively within the class while constructing meaning together, and also collaborate with a class abroad, thus breaking down classroom walls. As I see it, the learning of literature calls for an understanding of different cultures and different perspectives. This is part of an integrative approach that integrates theoretical, practical, self-regulative, and sociocultural knowledge (Tynjälä & Gijbels, 2012). It also integrates thinking and action, and domain-specific and generic skills. To me, literature is about life itself, so the more connections we make, the deeper our understanding will be.

This is a design-based research project aimed at studying how learning in a computer-supported collaborative learning environment affects my students. In this project my class in Israel will be studying a poem written by an American author from the last century, with the added element that a class from the Netherlands will be using this same learning environment as we do it. The emphasis will be placed on the collaboration within the Israeli class itself as part of a knowledge-building effort, thus combining a social dimension together with the cultural one in the learning process.

To conclude, this is certainly a dream project for me in a field I would most certainly want to continue developing and exploring in the future.

## 2 Theoretical Background

To make the connections among culture, context and language clear, a short review of the Social-Constructivist theory will open this section. As this project aims at creating an alternative learning culture, a close look will then be paid to what learning cultures are and how knowledge building fits into the target culture. This will lead to studying the implementation of these theories in computer-supported collaborative learning environments (CSCL) with special attention to the social infrastructures created in such a framework. Particular emphasis will be placed in synchronous online dialogue, in contrast to oral class discussions for exchange of ideas. Finally, the importance of developing critical thinking skills and a disposition to open-mindedness will be raised.

### 2.1 Of Culture, Context and Language Learning

The theoretical approach known as social constructivism stresses the importance of culture and context in comprehending what happens in society and constructing knowledge based on this understanding (Derry, 1999; McMahon, 1997). According to social constructivists, individuals create meaning through their interaction with each other and with the environment they live in (Kim, 2001). Reality is seen as built through human activity, with members of a society inventing the characteristics of the world (Kukla, 2000). Knowledge is viewed as a human product, socially and culturally constructed. And also learning is seen as a social process, which occurs when individuals are actively engaged in social activities and does not only take place within an individual. The context in which the learning takes place and the social contexts that learners bring to their learning environment are essential.

### 2.2 Creating Alternative Environments to Change Learning Cultures

A situated perspective on learning (Brown, Collins, & Duguid, 1989) has given rise to the design of various learning environments and educational interventions that offer alternatives to what is known as “school culture” (Sagy, Kali, Tsaushu, Tal, Zilberstein, & Gepstein, 2011). These alternatives aspire to provide students with more authentic activities taking into account the social context.

#### 2.2.1 Learning Cultures

A “learning culture” and a “teaching culture” are defined by Sagy et al. (2011) as values and behaviors a person or a group of people have with regards to their own “learning” or “teaching” in specific contexts. The “Cultures of Learning and Teaching” (CLT) framework proposed by them integrates various theoretical perspectives of learning and is based on the fact that these approaches can be seen as a continuum between external values (with standards set by an external entity) and internal ones (with standards set by the learner). External values are associated with a traditional school culture which is characterized by extrinsic motivation for learning, a performance goal

orientation, a shallow conception of learning, seeing tests as an end, and an avoidance of uncertainty. In contrast, internal values, which are linked to communities of practice (Brown et al., 1989) and knowledge building communities (Scardamalia & Bereiter, 2006), are associated mainly with intrinsic motivation, learning as an end in itself, a deep conception of learning, ignorance of power distance and an acceptance of uncertainty. Learners can go through a process of enculturation which involves picking up relevant jargon, imitating behavior, and eventually acting according to the norms of a new learning culture if given the chance to observe and practice in situ the behavior of its members (Brown, Collins, Dugid, 1989). This process can in turn bring about the learners' adoption of the new learning culture.

### ***2.2.2 Building Knowledge Together***

Scardamalia & Bereiter (2006) claim we now live in a knowledge-creating civilization in which ideas are improved as part of a societal effort. This represents a fundamental change in education as an attempt is made to initiate students in a knowledge-building (KB) culture. Whereas in the traditional approach individual knowledge and performance are emphasized and students are expected to gain the same body of knowledge at the same time (Bielaczyc, 2006), the focus is now placed on the children's desire to connect to what is most dynamic and meaningful in the surrounding society (Scardamalia & Bereiter, 2006). This involves the development of KB competencies and also the students' realization that their work and they themselves are part of the civilization-wide effort to advance knowledge frontiers. The outcome of this effort is the community knowledge which is publicly created and ideas are thus continually improved. Authoritative information is used in a constructive way, understanding is viewed as an emergent and discourse is seen as collaborative problem-solving.

### ***2.2.3 Learners Are Not Alone Any More***

Alternative learning environments, such as KB communities, have lately taken advantage of technology to advance learning. In order to successfully design Computer-Supported Collaborative Learning (CSCL) tools, it is essential to create an appropriate social infrastructure around them (Bielaczyc, 2006). The latter refers to the supporting social structures that facilitate the desired interaction between collaborators using the CSCL tool. This comprises three levels: the Cultural Level, the Activity Level and the Tool Level.

The Cultural Level revolves around issues of classroom philosophy, goals and norms. In her research Bielaczyc (2006) noticed that it takes time to develop a culture that fosters communal learning. Even though students worked in the CSCL environment with the same philosophy and norms being an integral part of the school day, only after spending some time in this culture were students better able to adopt them. The new tool itself provided public exemplars that reinforced norms. Students'

contributions in the communal KB activities, such as argumentation among students with different viewpoints, became models for others, thus often causing them to change their own.

The Activity Level centers around participant structures. Bielaczyk (2006) noticed three classroom practices that influenced the social infrastructure: teaming, face-to-face meetings (F2F) and the culminating event. Teaming fostered a sense of group identity and responsibility, and an incentive to engage in database interactions and communal KB. The F2F meetings offered facilitated whole class or team-based discussions. And the culminating event, including oral presentations, affected the amount of student interdependency.

The Tool Level focuses on issues regarding the use and adaptation of different tool capabilities. The latter involves the users' modification of features of an environment either because they have been specifically designed for this purpose, or because the users may use the affordances of a feature in unexpected ways. Other critical components are the teacher's role, the level of curriculum integration, and the curriculum content. It is necessary to see how all these components interact as a system (Bielaczyk, 2006).

#### **2.2.3.1 Synchronous Online Discussions in a KB Context**

Productive peer collaboration can be stimulated and sustained in computer-mediated environments and learning can be facilitated by these collaborative activities in various ways (Asterhan & Schwarz, 2010). According to Asterhan & Eisenman (2011), textual computer-mediated-communication (CMC) formats have several advantages over F2F formats of peer-to-peer discussion. To start with, people become less inhibited, open up more often, are more likely to express personal opinions and to take academic risks. Moreover, students do not need to compete in order to get the right to speak as they can post comments simultaneously. This leads to a more egalitarian and increased participation. Another advantage is that the ability to re-read and revise contributions fosters reflection. In addition, the absence of verbal communication cues (like facial expressions, body language and intonation) may lead students to being more explicit in their communication.

Asterhan & Eisenman (2011) also mention advantages that synchronous, co-located CMC have. First, student discussants share a space, know each other and the teacher is physically present, which prevents disruptive behaviors and lack of accountability for communication. Second, the teacher is there to keep up the engagement and motivation, to monitor and support group functioning, and to assist students when needed. Last, teachers can be sure the students themselves are doing the assignment. Besides, if these discussions were held from home not all students may have convenient computer access.

## **2.3 Fostering Autonomous Learners and Thinkers**

In the aim to develop autonomous learners and thinkers (Scardamalia & Bereiter, 2006), one of the many skills that will help students to think better is critical thinking skills, which can be taught and be of significant benefit to the students (Schraw, 1998). Critical thinking involves cognitive skills and also dispositions, such as open-mindedness, described as attitudes or habits of mind (Lai, 2011). Three conditions are necessary for learning critical thinking skills: spending enough time applying the targeted skills in a meaningful context, having the opportunity to observe skilled experts using the skills, and getting access to an expert's reflection (Schraw, 1998). Teachers and other students (both acting as models), and reflections each play an important role in this process.

### ***2.3.1 Learning Higher Order Thinking Skills in Meaningful Contexts***

To achieve the aim of making students become self-regulated, Schraw (1998) maintains their understanding the difference between cognition and metacognition can help. Whereas cognitive skills are necessary to perform a task, metacognitive skills are needed to understand how the task is performed (Garner, 1987). So, the teaching of meta-cognition requires teachers' understanding of both social and personal processes of knowledge construction (Zohar & Barzilai, 2015). The learning of meta-cognition and HOTS should be actively constructed just like knowledge is built by knowers so that it will be meaningful. The social exchange of ideas encourages students to expand, challenge and deepen their understandings. This can be achieved with student-led small group discussions, teacher-led whole group discussions, scaffolding and modeling. Since metacognitive knowledge about HOTS is highly abstract, it is necessary to engage students in an extended series of practical experiences. The use of metacognition is also necessary to accomplish transfer (Zohar & Barzilai, 2015). In fact, "Bridging" activities, designed to highlight the underlying common thinking elements found in various specific cases, can help learners form generalizations that will enable them to extend their metacognitive skills and knowledge to new contexts.

## **2.4 Aims of the Project and Research Question**

The aim of the project is to help students develop HOTS (different perspectives and comparing and contrasting in particular), contribute to their acquisition of critical thinking skills and make literature come to life while learning in an integrated way.

My research question will be: How has the students' learning culture changed as a result of their learning in the "The Road to Literature" program? The research goal is to explore the potential of a KB CSCL environment to help high-school Israeli students of English literature to be more open-minded, with open-mindedness being measured in terms of learning culture. External values will be considered as narrow-mindedness whereas internal values will be equivalent to open-mindedness.

### 3 Design of the Learning Environment

This environment was designed for students of English at a five-point level to study the poem “The Road not Taken” (See Appendix 1). The challenge is to make literature come to life as students learn English literature and the use of English for communication in an integrated way. The rationale behind the design is that the diversity of viewpoints, the cultural aspect, and the relevance literature has in life become tangible to students as they learn in a KB CSCL environment. The aim is also to help them develop critical thinking skills. Moreover, the design is meant to make the theme of the poem, making choices, become meaningful. Therefore, students are exposed to multiple perspectives on the main concepts in different contexts and get varied opportunities to build their language and ideas. A social and cultural component is present by enabling occasional asynchronous collaboration with a class abroad studying the same poem. However, the focus of the design is, above all, on the collaboration within the Israeli class itself in a KB framework.

#### 3.1 Description of Pedagogical Design

##### 3.1.1 Structure of Series of Activities

The structure of the site was designed for the progressive learning of the poem according to the requirements of the new curriculum for the teaching of Literature from the Ministry of Education. According to the updated version of the Teachers’ [Handbook for Integrating Higher Order Thinking Skills \(HOTS\) with the Teaching of Literature](#) (English Inspectorate, 2013), the teaching of pieces of literature should comprise seven key components:

1. Pre-Reading, 2. Basic Understanding (including LOTS or lower order thinking skills and vocabulary), 3. Analysis and Interpretation (containing HOTS and literary devices), 4. Bridging Text and Context, 5. Post-Reading Activity, 6. Reflection, 7. Summative Assessment.

Minor changes were introduced to the list above to create a clear and engaging flow of activities ([Design Principles Database or DPD](#)). For example, “Analysis and Interpretation” was broken down into three parts, and a page for Introductions in the international collaboration and another one for questions and answers were added. So, in all there are ten different sections (See Appendix 2):

Introductions → Pre-Reading → Reading & LOTS → Analysis → Comparing & Contrasting → Metaphors → Bridging → Post-Reading → Reflection → Q & A

### 3.1.2 Tools, Activities and Resources Used

Google Sites was chosen as the platform for the [project](#)<sup>1</sup> due to its flexibility, the easiness with which Google tools and others can be embedded in it, and the familiarity I already have with it. The design includes the use of the same site by both classes. In order to enable the building of ideas as part of a community effort, shared resources and collaborative tools allow for multiple social structures. The creation of a KB CSCL environment is mostly achieved through the tools, activities and resources found in Table 1.

In order to help build knowledge progressively throughout the unit, a special feature whose aim is to display students' answers publicly, was created. Its name is "Our Pool of Ideas" (see Appendix 3), and was inspired by the Public Idea Basket in [WISE Mitosis](#) and the Pearls ("פנינים") found in the LINKS course given by Prof. Yael Kali at Haifa University. The collection of best answers is done by the teacher at the end of most sections. This feature was designed to raise students' awareness to the diversity of opinions and answers on one same issue, to organize their insights in a visually clear way that facilitates the learning, and to supply students with a pool of resources. The latter promotes ownership over the learning for future activities (such as essay writing in the Bridging activity or in preparation for the exam) as part of the continuous improvement of ideas. Students get the credit for their answers; however, in "Our Pool of Metaphors", all answers were kept anonymous. This is due to the fact that this contains students' completion of the sentence starting with "My life is...", which connects to personally relevant content. Consequently, it was necessary to protect students' privacy and decrease fear of exposure.

Table 1

Section	Tools- Activities-Resources	Rationale- Principles
<b>Introductions</b>	<ul style="list-style-type: none"> <li>collaborative presentations(<i>Google Slides</i>)</li> </ul>	<ul style="list-style-type: none"> <li>international collaboration:               <ul style="list-style-type: none"> <li>self-expression</li> <li>motivation</li> <li>comparing and contrasting</li> </ul> </li> </ul>
<b>Pre-Reading</b>	<ul style="list-style-type: none"> <li>collaborative word cloud (<i>Answer Garden</i>)</li> <li>shared resource: video(<i>YouTube</i>) + comments window on site</li> <li>shared resource (<i>Google Docs</i>) with quote + comments window</li> <li>"<a href="#">Our Pool of Ideas</a>" (shared)</li> </ul>	<ul style="list-style-type: none"> <li>brainstorming of ideas</li> <li>video connects to what is relevant and prompts synchronous online discussions</li> <li>the quote prompts synchronous online discussion on comments windows</li> <li>KB: for collection of best responses</li> </ul>

<sup>1</sup> See site on the following address: <https://sites.google.com/site/theroadofliterature/>

<b>Reading &amp; LOTS</b>	<ul style="list-style-type: none"> <li>• online flashcards, tests &amp; games(<i>Quizlet</i>)</li> <li>• individual questionnaire (<i>Google Form</i>)</li> <li>• “<u>Our Pool of Ideas</u>”</li> </ul>	<ul style="list-style-type: none"> <li>• for learning vocabulary (autonomously) <ul style="list-style-type: none"> <li>○ gamification</li> </ul> </li> <li>• students’ individual answer on main idea <ul style="list-style-type: none"> <li>○ chance to voice interpretation</li> </ul> </li> <li>• KB: collection of best responses <ul style="list-style-type: none"> <li>○ making different viewpoints visible</li> </ul> </li> </ul>
<b>Analysis</b>	<ul style="list-style-type: none"> <li>• shared resource: video (<i>YouTube</i>)</li> <li>• online quiz (<i>ProProf</i>)</li> <li>• shared resource (<i>Google Form</i>) with two videos (<i>YouTube</i>) + comprehension question</li> <li>• “<u>Our Pool of Ideas</u>”</li> </ul>	<ul style="list-style-type: none"> <li>• author’s reading aloud of the poem <ul style="list-style-type: none"> <li>○ relevance &amp; meaningfulness</li> </ul> </li> <li>• cloze with immediate feedback <ul style="list-style-type: none"> <li>○ autonomous work</li> </ul> </li> <li>• analysis of interpretations <ul style="list-style-type: none"> <li>○ allows for choice</li> <li>○ evaluation of online sources &amp; development of critical thinking</li> <li>○ relevance</li> </ul> </li> <li>• KB: collection of best responses</li> </ul>
<b>Comparing and Contrasting</b>	<ul style="list-style-type: none"> <li>• shared presentation (<i>Google Slides</i>) with collaborative Venn Diagram (<i>Google Drawings</i>) &amp; video (<i>Youtube</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• explicit teaching of HOTS comparing and contrasting, discussion of examples <ul style="list-style-type: none"> <li>○ making content accessible</li> <li>○ making thinking visible</li> <li>○ relevance</li> </ul> </li> </ul>
<b>Metaphors</b>	<ul style="list-style-type: none"> <li>• shared resource: video (<i>TED-Ed</i>)</li> <li>• individual questionnaire (<i>Google Form</i>)</li> <li>• “<u>Our Pool of Metaphors</u>”</li> <li>• shared resource: video (<i>YouTube</i>) presenting metaphors in songs</li> <li>• collaborative tables (<i>Google Docs</i>)</li> <li>• individual questionnaire (<i>Google Form</i>) with attached file</li> <li>• online quiz on metaphors &amp; similes: (<i>Proprof</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• “flipped classroom”: learning assignments for homework and ensuing discussion in class</li> <li>• collects individual answers on questions on video</li> <li>• KB: collection of personal completions with metaphors from the questionnaire <ul style="list-style-type: none"> <li>○ honesty encouraged (anonymity)</li> <li>○ making different viewpoints visible</li> </ul> </li> <li>• further illustration of metaphors <ul style="list-style-type: none"> <li>○ relevance&amp; meaningfulness</li> <li>○ motivation</li> </ul> </li> <li>• KB – students’ collection and explanation of metaphors in songs from the video above</li> <li>• KB – students’ own examples of metaphors in songs with explanation and links to videos</li> <li>• individual understanding of the metaphor of the road in the poem with help of explanatory notes</li> <li>• individual review with feedback from system <ul style="list-style-type: none"> <li>○ autonomous learning</li> </ul> </li> </ul>
<b>Bridging</b>	<ul style="list-style-type: none"> <li>• collaborative presentation (<i>Google Slides</i>)</li> <li>• comments window (<i>Google Sites</i>)</li> <li>• shared document (<i>Google Docs</i>) with a shared resource: presentation (<i>Google Slides</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• KB – collaborative work <ul style="list-style-type: none"> <li>○ ownership of learning</li> <li>○ gaining expertise</li> <li>○ synthesizing</li> </ul> </li> <li>• synchronous online discussion</li> <li>• individual writing with scaffolding <ul style="list-style-type: none"> <li>○ flexibility of text allowing for reflection, teacher’s coaching and students’ editing</li> </ul> </li> </ul>

<b>Post-Reading</b>	<ul style="list-style-type: none"> <li>shared resource (<i>Google Sites</i>)</li> </ul>	<ul style="list-style-type: none"> <li>international collaboration: argumentative essay writing in response to American students' essays</li> </ul>
<b>Reflection</b>	<ul style="list-style-type: none"> <li>shared online board with sticky notes (<i>Linoit</i>)</li> </ul>	<ul style="list-style-type: none"> <li>expression of each student's individual thoughts in "sticky notes" <ul style="list-style-type: none"> <li>making thinking visible</li> <li>individual &amp; group reflection</li> </ul> </li> </ul>

### 3.1.3 Example Series of Activities

Two examples of series of activities are given below to illustrate the carefully designed structure for the progressive learning of different objectives in each section.

#### 3.1.3.1 Example #1: Pre-Reading

In this section students get ready for the poem by brainstorming the main theme - making choices. Arguments and ideas are gradually built with appropriate scaffolding which works on two levels. The first addresses linguistic complexity issues (see Figure 1), and the second is associated with the understanding of the main idea and the development of critical thinking skills (Figure 2). Therefore, the three activities are presented in an ascending level accordingly. All these tasks are fulfilled collaboratively and students are exposed to others' ideas, thus making thinking visible and helping students to learn from each other (DPD). In two of these activities students are encouraged to respond to others' contributions synchronously and engage in an online discussion. At the end of this section there is a "Pool of Ideas".

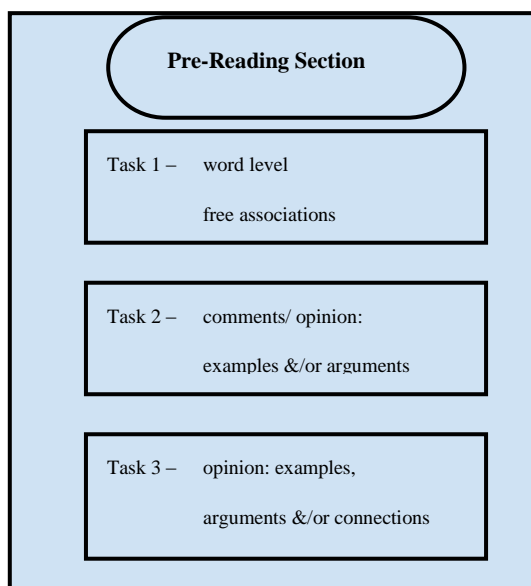


Figure 1- Gradual Progression of Linguistic and Idea Complexity

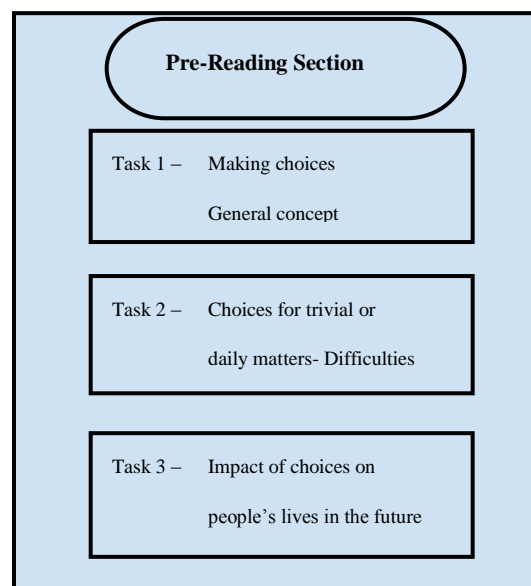


Figure 2 - Gradual Progression in the Building of Ideas Content-Wise

In the first task of the Pre-Reading section, students are required to work on the word level to create a word cloud by making free associations with the main idea of the poem. (See Appendix 4)

In task 2 (see Figure 3) students progress onto making comments after watching a monologue which focuses on the difficulty of making choices for trivial matters on an everyday basis, thus digging into a deeper level of understanding. Students are given guiding questions to watch the video and be able to make comments later. Also useful words used to express ideas are provided to help them give arguments or examples.

In task 3, students study a more abstract and general aspect of the main idea. They look into the impact our choices may have on our future when responding to a quote on this and engaging in a discussion (see Figure 4). The students are encouraged to make connections with any video or quote that may illustrate their arguments. The use of a quote to elicit responses, make connections and present arguments is done purposefully at this stage. The reason is that in one of the culminating activities students will be required to do a writing bridging task to connect what they have learnt in the whole unit with a relevant quote given to them (just like in the Bagrut exam).

The following design principles are implemented in the series of tasks described above so that each task plays a little role in the bigger frame.


Meta Design Principles: Help Students Learn from Each Other (in all tasks); Promote Autonomous Life-long Learning (in the second one)

Pragmatic Design Principles: Employ multiple social activity structures, Encourage learners to learn from others (in all tasks); Enable multiple ways to participate in online discussions, Promote productive interactions, Engage learners as critics (in Task 2 and 3)

**Task 2:**

a) Watch [Ellen's monologue](#) and think of the following questions as you do so.

1. How do we go about making choices according to Ellen?
2. How different was making choices in the past for the cave men than for men now in the present? Explain.
3. Which examples does Ellen give of decisions we make on a daily basis?
4. Is all this familiar to you? Can you give an example of how difficult choices can be?



b) Now add [comments](#) on the video you have watched in the comments windows [at the bottom of the page](#). You can also reply to someone else's comment and engage in a discussion. Do NOT repeat ideas. Try and [justify your opinion](#) by giving [arguments](#) or [examples](#). You can use the following expressions: I agree/ disagree for a few reasons. First,...Second,.../ For one thing,...For another thing,...As I see it,.../ In my opinion,.../ For instance,...

Figure 3- Connecting to what is most dynamic and relevant

**Task 3:**

Why would anyone say the following? **Explain**. Can you **illustrate** this quote with an example from real life? Does this **remind you of any other quote, song or anything**? Answer by using the comment button on the upper right hand side of this document. You do not need to start a new comment yourself. You could reply to other students' comments and engage in a discussion.

Click [here](#) to open the document on a separate page.

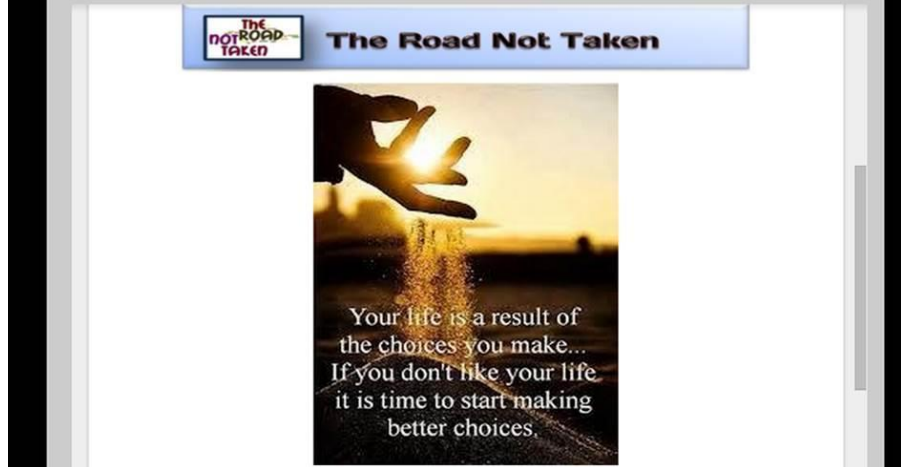


Figure 4 Making connections and expressing opinion on the consequences our choices

### 3.1.3.2 Example #2: Bridging

The bridging task is one of the culminating activities of the project and the students' learning of argumentation skills and HOTS together with their understanding of the poem are reflected as they engage in transfer. This section is designed in such a way that students first work collaboratively to build the knowledge they need to use (scaffolding) in their individual writing for bridging.

In the first task students work in groups on a collaborative presentation on the life of the author of the poem and the context he lived in to gain the necessary background knowledge for the poem. Students get into groups and choose a slide they want to be responsible for (according to the titles previously written by the teacher on each). They are instructed to find relevant information from at least two different online sources, integrate it and summarize it to complete their corresponding slide. As they finish, each group presents their slide orally to the rest of the class, thus sharing their area of expertise with the others and combining online with offline activities (oral presentations). This activity can lead onto students' ownership over their learning.

In the second task students have to find connections between what is learnt about the author in the previous task and the content of the poem itself. This is done synchronously in the comments window at the bottom of the page. Both Task 1 and 2 were designed to provide the necessary scaffolding to complete Task 3. In Task 1, they build their own learning material and in task 2 they are encouraged to make connections with the help of other students and the teacher's coaching.

In the third task students choose a quote by Robert Frost out of the ones in the corresponding slide in the presentation created for Task 1. Then they engage in argumentative writing as they do a bridging activity in which they explain the quote, connect it to a part in the poem, and also with the author's life. Thus they seek a deeper level of understanding. As they need to bridge text (the poem) with context (the author's background through the quote), they are instructed to review the information found for Task 1 and the connections made for Task 2. Prompt questions and a presentation with guidelines for essay writing are provided for scaffolding.

The following design principles are implemented in this series of tasks:

*Meta Design Principles:* Help Students Learn from Each Other (in all tasks); Make content accessible (in task 1 and 2); Promote autonomous life-long learning (in task 3)

*Pragmatic Design Principles:*

Employ multiple social activity structures and Build on student ideas (in all tasks); Engage learners in instruction of their peers (in Task 1); Integrate online with offline activities and Encourage learners to learn from others (in Task 1 and 2); Reuse student artifacts as resource for learning - Encourage reflection (in Task 3)

### **3.2 A Metaphor: The Learning Environment as a Community of Trees**

To sum up, the design can be represented with the image of a tree in a forest (see Appendix 5), just like the yellow woods in Robert Frost's poem. The tree has very strong and diverse roots which symbolize each of the students in the Israeli class that contribute to the growth of the learning community. All these roots feed the tree and, consequently are themselves fed, as part of a common effort to make the tree become robust and grow continuously. This is equivalent to the collaboration among students enabled by the various social platforms and aimed at the continuous improvement of ideas. This is why the bark of the tree, where all the roots join representing the common effort to keep growing (improving ideas), is marked with the words cultures, communication, viewpoints, and the HOTS are seen as the channels and enabling factors of further improvement leading students to a higher level yet in their KB community. The tree can continue growing and branching out endlessly just like the tree of life (literature is about life itself). But, this tree, however strong it is, is not alone. It is part of a community of trees that share vital nutrients, minerals, sugars, and water via underground root exchange, among one another even when they seem to be spread far apart. This is comparable to the collaboration between Israel and the Netherlands in the project. Each class will build knowledge in their own learning community, but their being part of the same endeavor and occasionally collaborating will help them both advance as part of a global community effort they will all benefit from.

## 4 Implementation

As I started the implementation of the project, I intended to make English literature compelling for my students, help them make meaning of the poem and get the motivation to dig more deeply, read more critically and learn how to express ideas in English better by making connections in a KB community of learners. On the one hand, literature is about life itself and critical thinking skills can be learnt through it. On the other hand, there is great pressure on teachers and students to succeed in the Bagrut exam. I was hoping to create a new culture of learning and teaching.

### 4.1 Course of the Implementation

The teaching was performed mostly in the computer lab in double lessons (90 minutes) once a week and only occasionally as a flipped classroom (see Table 1). Both the Israeli and the Dutch class learnt the poem “The Road Not Taken” from the same sources and collaborated asynchronously at times.

The lessons in the computer lab involved students getting used to a type of social infrastructure (Bielaczyc, 2006) which was new to them. This called for the search for solutions to the objective initial difficulties. For example, there were only twenty computers for the 30 students in my class. Therefore, ten students had to work in pairs. In addition, the physical framework was determined by the way computers are set in the lab, with students facing the computer with their backs to the teacher. This made it difficult to get students’ attention when needed at first. Still, the initial disorder was overcome in various ways. One of them was getting all students used to sitting at fixed places. Furthermore, a behavioral change was achieved with students who are easily distracted through conversations with them and assigning them a seat close to the teacher under her supervision. One student even made it a habit to bring his own laptop from home and sit in the center by himself on his own initiative.

The implementation itself went smoothly and progress was noticeable from one meeting to the other. The beginning was rough and norms had to be made clear; but, soon enough students adapted to this new environment while going through a process of enculturation.

#### 4.1.1 Highlights from Meetings

##### 4.1.1.1 First Steps in a CSCL Environment

In the first meeting there was a lot of excitement. Students collaborated on a shared presentation with each slide being completed by a different student to introduce themselves individually to the Dutch students. As a collaborative work of this sort was new to them, at first we were faced with students’ writing on slides that were already taken, having slides suddenly disappear, etc. But, once I had dealt with these initial issues and emphasized the importance of being respectful of others’ work, they got

immersed in the task and enjoyed it. Many of them strayed from the instructions and chose colorful backgrounds with pictures instead of adding a picture of themselves. This certainly defined each in a distinctive way and great creativity was displayed (see Figure 5 and Figure 6-pseudonyms are used).

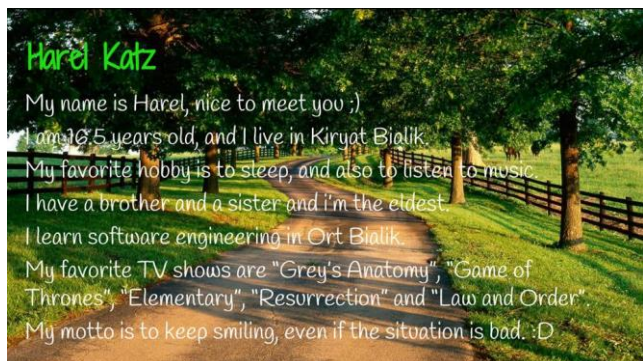


Figure 5



Figure 6

A huge change could already be felt in the second meeting. This seemed to stem from high motivation and their willingness to make this a successful experience. At first students took a look at the shared presentation with introductions prepared by the Dutch and were fascinated with it. They were surprised to see similarities with the Dutch students and some of them even went back to their own slides to improve them. When we passed onto the collaborative word cloud for associations with the concept of “making choices”, students had fun as they saw their words being added to the cloud which kept growing with very diverse responses (see Appendix 4). At the beginning of the synchronous discussions (see Appendix 6) in which they expressed their opinions in response to a video and then a quote, they would only say “I agree/ disagree”. But, through my modeling and the scaffolding (instructions and expressions) supplied on the site, the students began to justify their opinion with arguments and to interact with each other. Some asked clarifying questions or even corrected others’ Grammar. The honing of argumentation skills was further pursued in the project, leading to their application in essay writing (see 3.1.3.2.).

#### 4.1.1.2 Thinking Critically in a CSCL Environment

Students were taken to a deeper level of understanding in the fourth meeting, which focused on the Analysis and Interpretation section. For one of the tasks they watched a video of their own choice out of two they were supplied with (each with a different interpretation of the poem) and then had to express and justify their agreement or disagreement with the interpretation on a Google form. One of the videos was a scene from the movie “Dead Poets’ Society” with Robin Williams and the fact that this was authentic material (not created for teaching purposes) made it more attractive and relevant to the students. So, most of them chose this and worked assiduously on the assignment.

The HOTS Comparing and Contrasting was taught explicitly with the help of a shared presentation in the fifth meeting. A Venn diagram was completed collaboratively on the site as a specific example was studied. Since the explanation of technical matters would make things unnecessarily slowly, I saw fit to do this together orally as a group, with each student who came up with a difference or similarity being responsible for adding it to the diagram. For the oral discussion students were instructed to use of the necessary vocabulary for this HOTS (supplied in the presentation). One of the challenges was preventing students from overwriting on the diagram or making changes by mistake while fidgeting with the mouse. Indeed one student removed some of the differences; but, we had already come up with enough points of similarities and differences to make this HOTS clear. Later authentic material was used again as they watched a video with the song “Father and Son” that helped illustrate similarities and differences. An oral discussion ensued and was followed by the writing of a comparative paragraph on a Google Doc with the help of the scaffolding (useful expressions) from the presentation. But, we ran out of time for the last task.

In January students were busy getting ready for Bagrut exams, so I turned the Metaphor section into a flipped classroom. Students did the assignments for homework and then we discussed their answers, some of which had been collected in a Pool of Metaphors (or Ideas), in class. The wide range of responses for the task in which they completed a sentence with a metaphor or simile helped show different perspectives on one same issue (see Figure 7). Later we went over the students’ completions of a shared table with examples of metaphors or similes from songs, including explanations and links to videos (see Figure 8). As we watched some of the videos, they noticed they had come up with a playlist, which made this topic more enjoyable. The various examples in both tasks illustrated metaphors and similes in a very meaningful way and led to a better understanding of the poem as a metaphor for life. This turned out to be one of the students’ favorite sections of the whole unit.

**My life feels like...**

- [a sponge](#)
- [a beautiful shark](#). The shark is strong, threatening, dominates, and because of that knows to take over some things together. He is fighting, strong, ruler of the sea after Neptune. As the shark can do a lot of things together and still be powerful, I also do. Like the shark, I'm determined to get things I want and work hard everyday to get them perfectly.
- [a roller coaster](#). A roller coaster is an amusement ride developed for amusement parks. You do not always know what is going to happen in this ride and sometimes the ride is the funniest thing you have ever done but sometimes it is the most frightening thing you have ever done.
- [a trampoline](#)

Figure 7 -Pool of Similes& Metaphors (a collection of students’ responses)

**II) Quote metaphors or similes from other songs and explain their meaning in context. Add a link to the song on YouTube.**

Quote	Metaphor or Simile? Explanation	Name of Song + Link	Your Name
"Cry me a river"	<u>Metaphor</u> that expressed a sense of cynicism. It means you don't have sympathy for the person who complains.	<a href="#">Cry Me A River</a> by Justin Timberlake	Tati
"If you feel like a room without a roof"	This <u>simile</u> is used to show happiness and how much happy you are.	<a href="#">Happy</a> by Pharrell Williams	Benny
"I've got the moves like Jagger"	This <u>simile</u> is used to show a dancing talent.	<a href="#">Moves Like Jagger</a> ft. Christina Aguilera - Maroon 5	Yarin
"...and the walls are closing in on us and we are wondering how"	Metaphor Justin describes something that is hard for a man to be through because there are so many things that make him fail .	<a href="#">Down To Earth - Justin Bieber</a>	Marit
"Like a lazy ocean hugs the shore"	Simile a description of the feeling sway dance moves remind	<a href="#">"Sway" by Dean Martin</a>	Karin
"Love you like a love song"	This simile shows the love of a person to another,	<a href="#">"Love you like a love song"</a>	Sean
"Now I'm floating <u>like</u> a butterfly"	Metaphor - she has a lot of hope and strength.	<a href="#">"Roar" by Katy Perry</a>	Elad

Figure 8 (pseudonyms are used)

#### 4.1.1.3 Being Part of a KB CSCL Community

In the last part of the project three meetings focused on the Bridging section, thus taking longer than planned. But, students' serious involvement with each of the tasks made me see the importance of being flexible and allowing for more time to explore their learning as they showed more autonomy. The collaborative work in groups on the shared presentation for the background of the author (see 3.1.3.2.) required the use of critical thinking skills like evaluating and synthesizing (Appendix 7). The students managed to do a thorough job (even if some members were not sitting next to each other) and they were all absorbed in their work. During the assignment I assisted groups separately with coaching, so I could hear them think out loud, showing their reasoning while trying to figure out which information should be included. Students displayed creativity through the addition of pictures or choice of colors, and created their own study material which served as scaffolding (Appendix 8).

In the following meeting, students finally did the writing task on bridging based on the previous ones (see 3.1.3.2.) and I could help them on an individual basis. The flexibility which Google Docs allows for was beneficial to the reflective process of writing. Students gathered their thoughts, wrote, reflected, showed me what they had done for coaching, and made changes if necessary.

In the reflection session which took place in the last meeting, students were very cooperative and immersed in their thoughts as they filled a shared board with “sticky notes” (see Figure 9), in which they expressed how they felt about the whole learning process in a very candid way.



Figure 9

## 4.2 Downsides and Upsides of an International Collaboration

Originally, almost all documents were open to both groups to have them interact. However, doing the whole unit on two levels of collaboration proved to be overly ambitious and ineffective. Each class worked at a different pace; the level of English of the Dutch students was lower; the Dutch did not manage as well with the use of the collaborative tools and their teacher needed further guidance; and the two groups combined created a large number of students for interaction. This was not beneficial for making thinking visible clearly and the building of knowledge in general. So, both groups ended up using different copies of the site.

Therefore, we collaborated on occasions focusing on comparing and contrasting each other's work and cultures. During the course of the project, the students exchanged emails on a one on one basis to the corresponding pen pal through ePals ([www.epals.com](http://www.epals.com)) to learn about each other, thus gaining an appreciation of similarities and differences. This added a social component and an affective aspect to the learning, which affected students' motivation. Also when the implementation was over, an opportunity for collaboration with students from Pennsylvania arose, and this served as a Post-Reading activity. Israeli and Dutch students wrote essays in response to American students' on the role of a national literature in the 21st century as part of an [iEARN global project](http://www.iearn.org). My students got the chance for reflective writing on the relevance of studying “The Road Not Taken”.

### 4.3 Dealing with Challenges

A school exam was suddenly scheduled when we had not finished working on the project yet, so it disrupted the planned sequence, with assessment at the end. After handing back the exams, a reflective session was spontaneously held in class since the results did not meet our expectations and I felt they had not devoted time to studying at home. The differences between the prevailing culture of learning and the new one were raised and discussed as students voiced their difficulties. Additionally, getting the school management used to the fact that we needed a computer lab on a weekly basis was not easy. I managed by checking availability with the teachers who usually teach in a computer lab and asking them to let me use it every time.

### 4.4 Insights

From the implementation I gather that an international collaboration cannot be done in a continuous and intensive way for a project of this scale. This would result in failing to achieve the learning objectives. Yet, a collaboration on various activities throughout the course of the project and the knowledge that both groups are studying exactly the same from the same resources can help students gain different perspectives, an awareness to the HOTS comparing and contrasting, and an understanding of universal messages in poetry. In future iterations a handbook with guidelines for the accompanying teacher would be helpful to spend less time corresponding for guidance.

The whole unit was too rich and at times we would run out of time. In the next iteration I may teach the HOTS Comparing and Contrasting separately in advance both to prepare my students for the way the main idea of the poem is presented and mainly to devote enough time to this skill. I would also teach it explicitly in a traditional way and not make use of the collaborative Venn diagram.

One final insight is that students can get used to a CSCL environment of this sort pretty soon. A great improvement in their work habits could already be felt in the second lesson and the positive climate which was created affected our lessons in general.

## 5 Research

A qualitative case study research was chosen as most suitable due to the nature of the research problem itself (Straus & Corbin, 1990). I wished to describe and understand what happened to my students as they studied in a KB CSCL environment which was new to them.

### 5.1 Participants

Four students out of the 30 eleventh grade students who took part of the project were selected based on the differences in learning styles and personality between them: Lital, Mirit, Revital and Shimrit (all of them pseudonyms).

### 5.2 Data Sources

Data were collected from the following sources, but the findings for this research are mainly from the first two. The others were used for validation of data.

- Semi-structured interviews: around ten minutes each, focused on students' perceptions of the whole learning experience, conducted in Hebrew with the aim of letting students express themselves freely and as honestly as possible without being tied to linguistic limitations, and transcribed verbatim (see Appendix 9).
- Students' reflections: on the learning process, written in the last meeting (See Figure 9)
- My research diary
- Students' answers to a final survey: All students did it in the final lesson, and all answers were analysed and coded. Eventually only those of the case studies were taken into account.
- Artifacts: slides from shared presentations and comments on synchronous discussions.
- Students' school records: disclosed to me as their English teacher.

### 5.3 Data Analysis

My analysis focused on students' preferences of one learning culture over the other and particular interest was placed in seeing whether students expressed signs of having adopted the new culture (internal values) and becoming more open-minded (See 2.2.1.). In cases of students being in conflict about the learning culture, I tried to understand the difficulties that led to this.

After going through all the data collected from all participants with all the tools mentioned above, I understood that focusing on four case studies would best explain what had happened in my class, and thus I reduced the data (Chi, 1997). The transcripts were segmented into utterances (Chi, 1997) and the unit of analysis was defined as the answers to each of the questions. However, further segmentation was needed for long answers in which more than one idea was expressed. After analyzing all data, they were quantified based on Chi's (1997) verbal analysis and her notion of

quantification of qualitative data. The process was a deductive one as I realized that my aim to make students more open-minded was equivalent to holding a culture of learning guided by internal values. Therefore, I adopted the CLT (Cultures of Learning and Teaching) rubric used by Sagyet al. (2011) (Table 2). This rubric shows the different ways a learning culture of internal values and a learning culture of external values are represented in students' responses for six different aspects. Then I analyzed all transcripts from the data as I checked the suitability to my emerging themes. The only change made to the original rubric was the reference to open-mindedness as internal values and narrow-mindedness as external values. Thus, the CLT framework provided a lens through which I could analyze the data and describe the themes.

Table 2 - The CLT Rubric

Aspect	Internal Values (Open-mindedness)	External Values (Narrow-mindedness)
<b>Goal Orientation</b>	<p><b>GO1-I:</b> Seeking deep understanding, profundity, interest, expanding intellectual horizons or personal growth.</p> <p><b>GO2-I:</b> Emphasizing the formative role of evaluation</p> <p><b>GO3-I:</b> Expressing satisfaction or a feeling of achievement when referring to learning</p>	<p><b>GO1-E:</b> Seeking sufficient grade, fulfilling academic requirements.</p> <p><b>GO2-E:</b> Emphasizing the summative role of evaluation, even when it does have a formative role; emphasizing the standardization function of assessment, even when it conflicts with learning.</p> <p><b>GO3-E:</b> Focusing on either comparing one's work to that of others or to an external standard (e.g. exam grade)</p>
<b>Willingness to Invest an Effort:</b>	<b>IE-I:</b> Investing extra efforts in order to maximize the opportunities to learn	<b>IEE:</b> Putting minimal efforts, looking for shortcuts
<b>Attitude towards Authority</b>	<p><b>AA1-I:</b> Seeking help from various sources, not necessarily "authoritative" ones.</p> <p><b>AA2_I:</b> Treating new knowledge critically, even when coming from an "authoritative" source</p>	<p><b>AA1-E:</b> Seeking authority, attempting to please the instructor, the institution's regulation, etc.</p> <p><b>AA2_E:</b> Accepting knowledge coming from an "authoritative" source without contestation</p>
<b>Attitude towards Uncertainty</b>	<b>AU-I:</b> Viewing uncertainty as an opportunity for learning and self-growth	<b>AU-E:</b> Intimidation by uncertainty, attempting to avoid it and viewing it as an obstacle to the learning process.
<b>Ownership of the Learning Process</b>	<b>OL_I:</b> Accepting and even seeking ownership of one's own learning process.	<b>OL_E:</b> Attempting to avoid ownership and responsibility of one's own learning process, and leaving these to the instructor.
<b>Conception of Learning</b>	<b>CL_I:</b> Deep learning: reference to deep meanings of the subject matter, making connections, and building on previous knowledge (levels 4 & 5 in Säljö, 1979)	<b>CL_E:</b> Shallow learning: reference to surface aspects of the content, memorization of facts instead of attempting to understand them (levels 1-3 in Säljö, 1979)

## 5.4 Findings

The data for the four students yielded two schemes:

1. Two contrasting cultures of learning: Internal Values/ External Values
2. Adoption of New Culture/ Conflict

#### **5.4.1 Internal Values vs External Values/ Adoption vs Conflict**

My original conjectures were that the KB CSCL environment I had created would affect students in such a way that most students would embrace this new culture. However, despite the students' enormous enthusiasm about this new environment and willingness to work in the meetings and adapt, some clashes between a culture based on internal values and a culture based on external values were noticeable for the long run.

Through their responses in the interview and their reflections I could see that two students, Mirit and Revital had adopted this new culture while the other two expressed a conflict and still felt more at ease with being led by external values for certain aspects. This is reflected in these interviewees' answers relating to the categories of *attitude towards authority*, *attitude towards uncertainty* and *conception of learning*. In fact, for categories like *goal orientation* and *willingness to make an effort*, the adoption of this new culture looked easier.

In Table 3 and Table 4 found below, I provide an overview of the findings. These tables were produced with the coding from the analysis given for each of the utterances, taking into account which category applied and which type of learning culture was reflected (See Table 1). The distribution of any of the two colors, representing each learning culture, shows the degree to which the students have adopted the new learning culture. The tables are followed each by a rich description of each case and the two types of cases.

#### **5.4.2 Lital's Case: Mixed Values Leading to Conflict**

As Lital's English teacher, at the beginning of the school year I was informed and also noticed that she has learning disabilities she has managed to cope with. She usually has to be read to as she finds it difficult to do the decoding necessary for reading whereas she can be an outstanding student as she listens and interacts orally. In fact, under the school's recommendation, she underwent tests, was properly diagnosed and now has the suitable dispensations in exams. Consequently, anything that strays away from what she is familiar with causes a great fear of uncertainty for her, which is expressed in the interview twice (see Table 3). This is why she felt relieved, as she noted in the interview, she could work in pairs and use the same computer with another student. For example, when asked about her opinion of the co-located synchronous online discussions (see 2.2.3.1.), she says:

*"I think this was two-sided. On the one hand, we got many ideas and there was much more room for expression. In the class we can also do that, but as we are given the possibility to write everything, the result is much more room for expression. However, I think this had a disadvantage, which was pretty big for me. As I got ready for the exam, I did not know if you had reviewed what we had written on the site. I did not know, if this could be learnt by heart...For example, we did a*

*presentation on the author and each of us contributed to it. So, I wanted to learn from this presentation, but I did not know if I could rely on it. This bothered me.”*

Table 3

		Goal Orientation			Investment of Effort	Attitude towards Authority		Attitude to Uncertainty	Ownership of Learning	Conception of Learning			
		1	2	3		1	2				Total Reflection Average:		
Lital	Reflection (Linoit)	Utterances	Green	Red							0.5		
	Interview	1				Green	Red	Red		Red			
		2					Green						
		3					Green						
		4			Green		Green						
		5					Green						
		6		Red			Red						
		7				Green	Green						
		8	Green								Green		
		9									Green		
		10						Green					
		11	Green										
		12					Green						
		13					Green						
Averages:		1	0	1	1	0.88	0.5	0	#DIV/0!	0.67	Total Interview Average:	0.7	
Revital	Reflection						Green			Green	Total Reflection Average:	1	
	Interview	1						Green			Green		
		2				Green					Green		
		3	Green										
		4					Green						
		5						Green					
		6											
		7	Green							Green			
		8	Green				Green						
		9					Green	Red					
		10			Green								
Averages:		1	#DIV/0!	1	0.67	1	1	#DIV/0!	1	1	Total Interview Average:	0.92	

■ Internal values based culture  
■ External values based culture

The inner conflict she has in adopting the new learning culture is noticeable here. On the one hand, Lital does recognize the importance of having the possibility to have one’s voice heard and being exposed to multiple ideas besides the authoritative one. This reflects open-mindedness. On the other hand, this same collaboration which resulted in joint products was also the cause of great uncertainty in preparation for the exam. When referring to it, she is guided by external values and views learning as the memorization of facts. The uncertainty created by the lack of only one source of information (presenting ideas as fixed) was an obstacle to learning for Lital as she did not know whether she could rely on any of them.

Still, in another utterance she talks enthusiastically about the benefits of collaborative work and her adoption of this culture as the result of discovering a whole new world for her.

*"At first I thought that each of us has an opinion of his own and it is not enough since there needs to be someone who will say really a clear opinion. This way there will no room for doubts, for example when I need to prepare for exams, since in real life I do not have a problem with listening to everybody’s opinions. But, then suddenly I discovered Google Docs and saw that everyone gives*

*his/her own opinion. In the end we build together one idea which is the correct one. So, this has given me a different perspective on opinions, meaning that it is good to see other opinions.”*

In the utterance above Lital talks about the change she underwent regarding her attitude towards authority. At the beginning of the project she sought authority and just one source of information, and was ready to accept this without contestation (external values). She also linked this to her goal in learning: succeeding in exams. However, she says, as she was exposed to various ideas thanks to technology, she gained a new perspective and realized that this environment helped her build knowledge collaboratively and individuals' ideas were improved with each contribution. So, ideas were not fixed any longer. Yet, immediately after this she talks again about the necessity to stick to one authoritative source of information (external values) which will provide her with the certainty she needs to succeed in exams and thus achieve her goal in learning.

*“Many times as I learn for exams, I say to myself I have an opinion of my own, but the exam is not the best place to express it...In general in all exams at school they sort of ask you to do one thing only. And then in class you can say everything you think. And this is what I do. I have an opinion and will say it, and if you say it is right, then I will decide whether to write it.”*

Out of three utterances on the *conception of learning*, two reflect internal values while one is characteristic of external values (see Table 3). She is also divided in her attitude towards authority. In fact, this is noticed when referring to the acceptance of knowledge coming from an authoritative source irrevocably or whether to treat new knowledge critically. Whereas one utterance reflects internal values, another one (out of two) shows external values.

#### **5.4.3 Revital's Case: Embracement and Overall Change of Attitude**

As I noted in my research diary, Revital had a very negative attitude in the English class at the beginning of the year. As her English teacher, I saw that until we started with the project, she would sit on a corner at the back and be immersed in her world. Besides, she could be rebellious and answer back at me if I called her attention on anything. She refused to be moved to another seat and my attempts to speak to her were unsuccessful. Nevertheless, at the end of the first meeting she asked me, "Can we have a lesson like this again?" as she smiled enthusiastically. This was the first time she had expressed any interest in a lesson. From then on a radical change in attitude occurred.

In the interview she explained her change as follows: *“To start with, I moved away from the back of the classroom to another seat and now listen more attentively and am more focused. When sitting at the back, I would not really listen. I moved seats on my own initiative since I wanted to be able to listen and not miss much material. This happened at the same time we were doing the project. It is as*

*if I had to choose between two roads. I could either stay there, sit and not listen, or I could come forward and...*”

Revital uses the metaphor of the two roads from the poem to explain her change, which shows the transfer she did and the influence this project had on her adoption of the alternative culture. Further reasons for the latter are seen in the next utterance about the synchronous online discussions:

*“This had advantages. Yes, it helped me since each one of us can write what he wants and when he wants to do so; thus, nobody will be shouting in class. Each of us wrote something, and could refer to what he/she wanted to relate to. You can see what everyone wants to say; each of us writes what s/he needs and refers to what s/he knows about the most and understands better. “*

Thus, the synchronous online discussions contributed to her adoption of internal values. She shows open-mindedness as far as others’ ideas are concerned and considers them as valuable sources of information. The visibility of multiple views and the possibility to choose what to build on and when to do it are seen as advantages by her. This utterance also reflects interest and motivation.

Regarding the international collaboration, she said, *“It is nice to learn the same... The learning is done in an experiential way. It is more enjoyable, in my opinion”*. And when inquired about the reason why she had gone back to review her personal slide and improve it after seeing the Dutch students’, she said enthusiastically and proudly, *“Yes!! I designed it nicely! I saw that each of them designed the slide according to their hobbies, what they like. So, I wanted mine to reflect who I am.”* This reflects internal values and a change as she gained ownership over her learning as a result of the influence the international collaboration had on her.

The only utterance associated with external values is one connected with *investment of efforts* (see Table 3). She said that she had not done homework as she usually did not enter the class site from home; she did not know about it and then just did not have the chance to complete it. This shows that her willingness to invest efforts could not be assumed as a given when working from home.

#### **5.4.4 Mirit’s Case: Immediate Adoption of Internal Values**

Being Mirit’s teacher, I had been informed she has an inclination for technology and innovation in general. The fact that this type of environment suited her became obvious in the interviews and the reflection (See table 4). In fact, all her utterances were identified as referring to internal values. From the start of the interview she makes a clear distinction between what she calls “the old way” of teaching which applies to the way she says all subjects are studied and “the new way”. The latter is associated with this project and is described by her as “extreme” in contrast to the rest of what is done at school. In her view, this is the reason why this new learning culture has not “caught on”

completely in our class yet. She says students are not used to this due to the fact they are told to work differently in other subjects, whereas for 90 % of the project students used computers.

Table 4

		Goal Orientation			Investment of Effort	Attitude towards Authority		Attitude to Uncertainty	Ownership of Learning	Conception of Learning			
		1	2	3		1	2						
Mirit	Reflection										Total Reflection Average:	1	
	Interview	1											
		2											
		3											
		4											
		5											
		6											
		7											
		8											
Averages:	1	#DIV/0!	1	#DIV/0!	1	#DIV/0!	1	#DIV/0!	1	Total Interview Average:	1		
Shimrit	Reflection										Total Reflection Average:	1	
	Interview	1											
		2											
		3											
		4											
		5											
		6											
		7											
		8											
		9											
		10											
		11											
		12											
		13											
		14											
Averages:	1	#DIV/0!	0	1	0.43	0	0.33	0	0.75	Total Interview Average:	0.57		

Internal values based culture  
 External values based culture

When asked about the value of studying literature, she says, *“When studying a poem “the old way”, it is very fixed and there is a lot of memorization. This also applies to other study materials from subjects like History and Civic Education, but it is difficult to remember them as we do not manage to link them to anything...In all memory drills that exist in the world what you do is link things to something that you feel a connection to so that it will be easier to use this material in the future. If we study with new methods as we did when linking the poem to videos with Ellen Degeneres and Robin Williams, it is easier to recall the material.”*

In this utterance Mirit says the memorization on which the traditional way is based is not effective. In fact, she sees making connections (internal values) as more significant. However, as she explains its relevance, she connects it with memorizing. But, this may be due to a poor command of language.

When referring to the collaboration within the class, she said, *“When we study in the classroom the old way, we hear the teacher, what we are expected to give as an answer, and this is what they want us to write on a paper. Here we get to hear what other people think; maybe the teacher’s opinion too. But, we are not expected to say what is written in the notebook...”*

Mirit sees the new learning culture she has embraced as based on her peers’ contributions and even doubts the necessity of hearing the teacher’s opinion at all. As she describes it, standardization is not

the goal and students do not seek to please authorities as it happens in an external-values based culture. Her internal values for *goal orientation* and *conception of learning* can also be seen below:

*“This was different from last year when we studied lots of hours and chewed on the learning material repeatedly back and forth. It is true that we did get it, but it sort of got into our heads. However, this new method, including the way we studied the new words, truly added a lot... Also this method is more attractive, even if it is a bit childish to say this. But, it is much more enjoyable to learn this way.”*

Mirit expresses satisfaction when referring to the learning (*goal orientation*- internal values) and even feels the need to apologize for this, probably because this is not necessarily expected in the learning culture of external values she has been educated in until now.

#### **5.4.5 Shimrit's Case: A Clash of Cultures**

In my character of Shimrit's teacher and as noted in the research diary, I observed she had a highly positive attitude and seemed to enjoy the lessons in the computer lab. So, I thought she would welcome this new culture with open arms. However, in the interview I discovered the need she had for an authoritative source of information (external values) as she referred to it five times(see Table 4). In fact, the feeling of insecurity the collaborative environment gave her was noticeable in her answers, and her interest in doing well according to external standards could be identified as a top priority for her. In contrast, she referred three times to the benefits of being exposed to others' views (internal values), proving that she enjoyed the environment and saw the advantages of expanding her horizons. But, she just found it difficult to adopt this new learning culture as she identified with the other on what mattered the most to her: success in school.

Shimrit's fear of uncertainty is noticeable in her response below, which can be associated with an absolutist epistemic belief.

*“I did not quite like the synchronous online discussions. I did not read the Pool of Ideas since I felt ‘OK, it's fine that each of us has his/her own opinion. However, if there are many opinions, how will I focus on mine? Or better, on just one?’ Each student feels his opinion is the right one. Everybody says lots of things. So, I said to myself I will get confused in the end.”*

In contrast, internal values guide her as she refers to the authentic material used in the project and the importance of making connections when learning. This is indicative of deep learning (*conception of learning*) and also a desire to expand intellectual horizons associated with open-mindedness: *“But, I liked the videos....they showed that this is really used...It is not just something that was written a hundred years ago and has disappeared...”*

#### 5.4.6 Course Features and their Contribution to the Change

The following findings were all noted in the interviews.

- Exams: students were more likely to use external values.
- Making Thinking Visible Features (synchronous online discussions, and the shared artifacts: the presentation for bridging and the collaborative table for metaphors and the Pool of Ideas explained in 3.1.2.): all students could see their benefits (as noted in the interviews). Two students displayed enthusiasm for the possibility given to learn from others, be given a voice and gain ownership of their learning. However, the other two remained divided as they did not find these features suitable for preparing for exams, which is a prime goal for them (external values).
- Authentic Material: all students regarded this as contributive to making the learning more meaningful by connecting the learning material to real life (internal values).
- International Collaboration: all students regarded this as a possibility to connect to other cultures which contributed to making the learning more meaningful (internal values).
- Vocabulary Exercise (Quizlet- See Table 1 in 3.1.3.): all students felt it provided them certainty and helped them memorize the words (external values).

### 5.5 Discussion and Conclusions

The purpose of this study was to examine how students' learning culture changed as a result of their learning in "The Road to Literature" program. The research goal was to explore the potential of a KB CSCL environment to help high-school students of English literature be more open-minded, with open-mindedness being measured in terms of learning culture. Findings revealed two major patterns of acceptance: adoption and conflict. These are represented by the case studies described in 5.4. While two students embraced this new culture wholeheartedly, two other students showed signs of conflict between their willingness to adopt a culture based on internal values for some aspects and their apprehension to abandon a culture they feel comfortable with which is based on external values.

Three main obstacles for adoption were identified in all interviews. One of them is the prevailing learning culture in the school system which is based on external values and sees standardization and success in exams as its goal. Another difficulty is the lack of students' willingness to invest an effort beyond the classroom. And an additional roadblock is a grip on what is familiar to the students and gives them a feeling of certainty. Therefore, the adoption of a new learning culture calls for a process of enculturation which could be challenging as it clashes with the epistemic climate of the schools.

As I see it, the conflict experienced by Lital and Shimrit can be explained with what Muiss and Duffy (2013) call "epistemic doubt", which takes place when individuals question their existing

beliefs. These authors refer to what Kienhues, Bromme, and Stahl (2008) describe as the catalyst for an epistemic change, which happens as a result of the dissonance or disequilibrium that arises between existing beliefs and new experiences. On the one hand, half of the students did show signs of adoption of an internal values-based culture, in which knowledge is seen as complex. On the other hand, they would sometimes contradict themselves and still showed the need for an authoritative source of information when preparing for exams (external values). According to the authors, the epistemic doubt is the result of increased independence and exposure to beliefs that were different from those currently held. So, maybe what my students went through is the moment of doubt Muiss and Duffy talk about. Their motivation noticed in the observations makes me assume that further interventions might result in the desired epistemic change. After all, this culture is at odds with the wider cultural system, as noticed by two of the students interviewed, and this can make it difficult for them to resolve the conflict without their acquiring effective resolution strategies.

The findings are encouraging, especially if I take into account the fact that this is the first time these students have been exposed to a KB CSCL learning environment. I believe this environment has created a conflict that may probably lead to a future adoption of this new culture. The questions that remain to be answered in the future are whether a new iteration of the project would make the students with conflicting opinions adopt a culture of internal values. How can these changes be integrated in a school system that has different standards from these? How can students' fear of uncertainty be overcome? There surely is plenty of room for further research to find the best ways to create this change and also to see how this can be adopted by the system itself. The latter is a goal which I find particularly difficult to achieve in the present climate. So, research which would yield practical implications for the field seems to me imperative. After all, this is a change that is needed for the society as a whole.

## 6 Reflection

As I see it, this project is my own creation and certainly a source of pride. Undoubtedly, this has been a unique opportunity for both personal and professional growth. It is the product of my many years of work and experience which have now been immensely refined. Besides, it was interesting to see how the two years of studying in the MA program converged in this work and greatly contributed to it. An added outcome of this self-discovery process is that I have understood I want to do research in this field which I totally identify with and defines exactly who I am and what I believe in.

### 6.1 The Personal Journey

“Two roads diverged in a yellow wood, and I took the one less travelled by, and that has made all the difference” (Robert Frost). Just like in the poem’s words, I feel I made choices at different points which were not the most conventional ones and, yet, they made all the difference for me. Indeed many times the road was hard and painful, and it was difficult to see what lay ahead. But, all in all, I was not intimidated by challenges, and even sometimes enjoyed them or later rejoiced in seeing myself capable of overcoming them.

After deciding not to do a thesis at this stage, I changed tracks and joined the course at the beginning of the year. The first semester was rough as I went through upsetting situations. However, Prof. Yael Kali’s sensitivity and flexibility of thought helped me find the necessary conditions to focus on the work. The second semester was full of hardships of a different sort as the process became very intense. Prof. Kali’s feedback always allowed me to continue growing. She managed to take the best out of me in our talks even if she sometimes made it hard on me.

But, above all, my unconditional source of strength has always been my family. They learned with me and supported me throughout this journey. My kids and my husband, in particular, were witnesses to my efforts and my growth, and are all immensely proud of me. They would all be involved as I shared my thoughts, discoveries, doubts and moments of joy and despair with them. Probably, I have provided a role model for my children of someone who keeps trying to improve herself through learning, courage and tenacity. They could see that I do not give up in times of adversity in the pursuit of a dream.

### 6.2 A Newly Found Identity

Thanks to this project, I have gone through a transformation and now see myself as a researcher in addition to being a teacher and a designer. In fact, I have learned to think differently, and now look at my teaching itself and the school system in general in a different way. The turning point for me was the reflection session the students and I had in class after seeing the disappointing results in the

exams. I suddenly found myself listening to every single comment attentively and differently. Then I tried to understand their significance instead of delving in a feeling of frustration or taking this as a failure as I would have done as a teacher. I understood that this was part of the process, which offered us all an opportunity for growth. I had taken them out of their comfort zone to help them think differently and there were lots of insights to be gained from their feedback.

Actually, my whole life was affected by my newly found identity as a researcher. I found myself pondering on my project at all times and would sometimes be absorbed in it for full days. I could feel immense pride after finishing one more stage each time. However, this would never be final, which could be discouraging at times. In addition, I thoroughly enjoyed writing and the reflective process involved in it. When refining the chapters, I felt like an artist playing with words and sentences. I was truly marvelled by the power of language, which I have always been attracted to and could now have the chance to make use of.

### **6.3 Wonderful Partners for the Road**

In this project my students and I certainly travelled along a road that took us to wonderful places. During the implementation I saw them grow and mature as a learning community and as learners. Their enthusiasm and willingness to adapt to the new norms and make this a successful experience helped turn this into a fascinating process. I truly felt lucky to be doing this project with this class in particular and will cherish the uplifting moments I shared with them forever.

As I see it, the students themselves had a learning experience which has changed them to a certain extent. They had the chance to open up their mind to new experiences and see how they feel about them as they learnt English literature in a completely different way from the one they did in the past. They connected their learning to life or anything that is relevant to them, and thus could see that the learning of literature is not limited to a text or notes. All in all, it was a pleasure to see them enjoy the lessons and feel that all of us together were part of a small change in the education system.

### **6.4 To Sum Up...**

- Facing challenges is inherent to growth. I can put up with them and still come out strong.
- As a researcher and with my years of experience in the teaching profession, I feel I could make a contribution to the field I feel so much identified with.

In short, this is not the end of the road! Or in Shakespeare's words, "We know what we are, but we know not what we may be".

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## Appendices

### Appendix 1-“The Road Not Taken” by Robert Frost

The poem which was studied for this unit was written by the American poet Robert Frost (1874-1963) in 1920.

#### ***The Road Not Taken***

*Two roads diverged in a yellow wood,  
And sorry I could not travel both  
And be one traveler, long I stood  
And looked down one as far as I could  
To where it bent in the undergrowth;*

*Then took the other, as just as fair,  
And having perhaps the better claim,  
Because it was grassy and wanted wear,  
Though as for that the passing there  
Had worn them really about the same,*

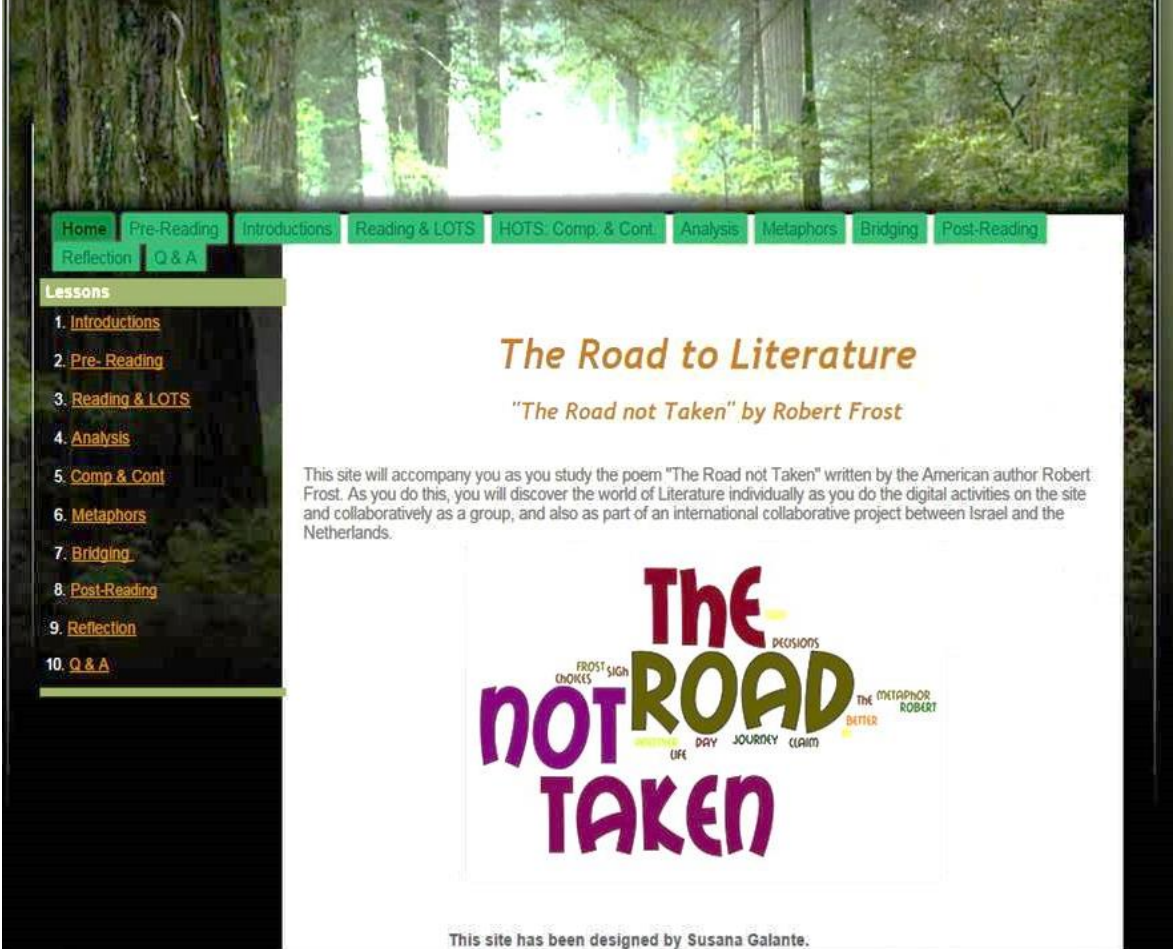
*And both that morning equally lay  
In leaves no step had trodden black.  
Oh, I kept the first for another day!  
Yet knowing how way leads on to way,  
I doubted if I should ever come back.*

*I shall be telling this with a sigh  
Somewhere ages and ages hence:  
Two roads diverged in a wood, and I –  
I took the one less traveled by,  
And that has made all the difference.*

*~ Robert Frost  
(1874–1963)*

## Appendix 2- Home Page of the Site for the Project

The ten different sections of the site, including the seven key components for the teaching of English literature for the Bagrut exam can be noticed in the side bar



The screenshot shows the home page of a website titled "The Road to Literature". The background is a photograph of a sunlit forest path. At the top, there is a horizontal navigation bar with green buttons for "Home", "Pre-Reading", "Introductions", "Reading & LOTS", "HOTS: Comp. & Cont.", "Analysis", "Metaphors", "Bridging", and "Post-Reading". Below this, a vertical sidebar on the left contains a "Lessons" section with a numbered list of 10 items: 1. [Introductions](#), 2. [Pre- Reading](#), 3. [Reading & LOTS](#), 4. [Analysis](#), 5. [Comp. & Cont](#), 6. [Metaphors](#), 7. [Bridging](#), 8. [Post-Reading](#), 9. [Reflection](#), and 10. [Q & A](#). The main content area features the title "The Road to Literature" in a large, brown, serif font, followed by the subtitle "The Road not Taken" by Robert Frost in a smaller, italicized font. Below the subtitle is a paragraph of text: "This site will accompany you as you study the poem 'The Road not Taken' written by the American author Robert Frost. As you do this, you will discover the world of Literature individually as you do the digital activities on the site and collaboratively as a group, and also as part of an international collaborative project between Israel and the Netherlands." Underneath the text is a word cloud graphic where the words "The", "ROAD", "NOT", and "TAKEN" are the largest and most prominent. Other smaller words scattered around include "FROST", "CHOICES", "SIGN", "DECISIONS", "THE METAPHOR", "ROBERT", "LIFE", "DAY", "JOURNEY", "CLAIM", and "BETTER". At the bottom of the page, a small line of text reads "This site has been designed by Susana Galante."

### Appendix 3 - Sample Pool of Ideas

The list below contains a collection of the answers given by the students on the main idea of the poem. This was posted on the site and students could notice the different points each of them focused on. Other pools of ideas were collected in shared presentations.

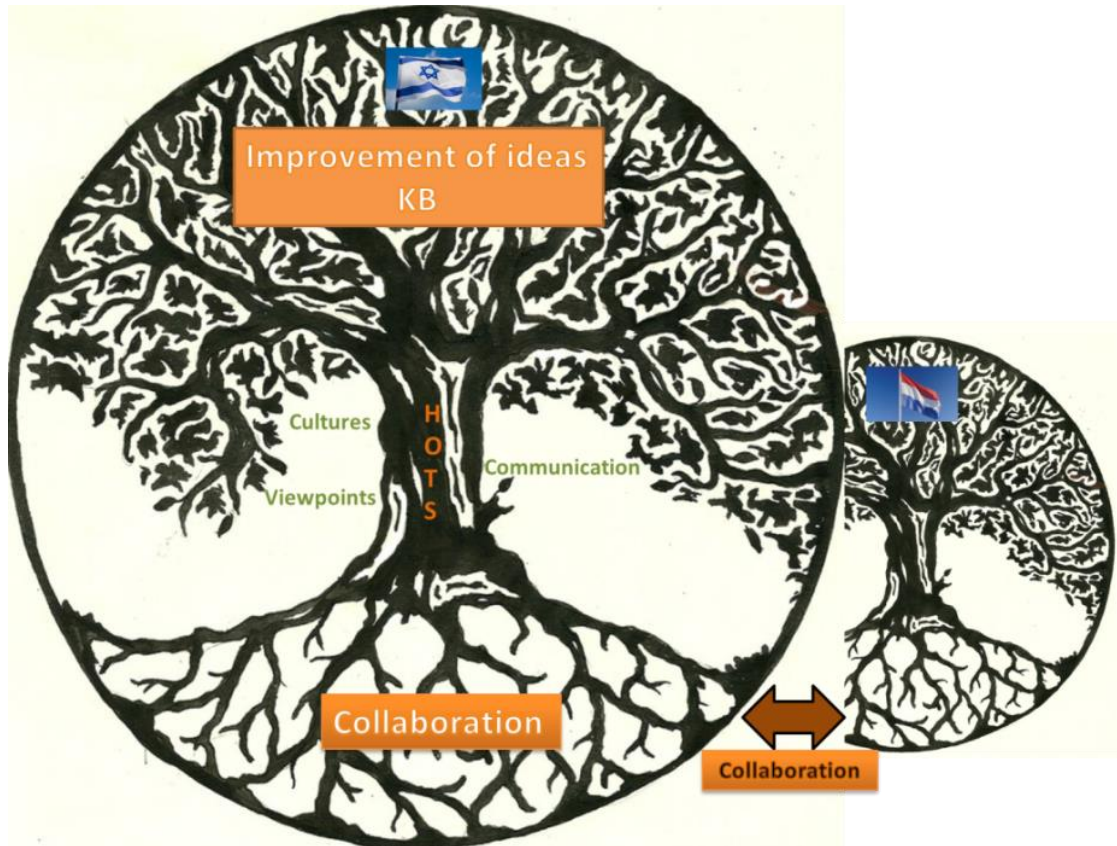
#### *What is the main idea of the poem?*

- The poem talks about our life. We all have choices (the roads) and we have to choose one. In my opinion, one of the main messages is: If you choose a road, **do not look back**. It means that **you should stick with your own choices**. (Shimit)
- It's basically about the different choices we have to make in life and **where those choices are going to take us**. Everyone has **two roads** that he/she can take. If you take one road you are **always going to wonder what would have happened** if you had taken the other path. (L.)
- What I understand from the poem is that the writer has two choices to make, both of them lead to completely different situations. **The writer has chosen the less choosable one which means he is courageous, brave and adventurous**. Though, I am not sure whether his 'sigh' is out of being happy for making that decision or is it out of depression. I have noticed the writer has a self conflict, pondering, **constantly wondering what would have happened if he had chosen the other road, and this thought chases him after for so long till today**. (P.)
- The ideas that I understood: **the less traveled by road can be sometimes the best one** ; and that we shouldn't pick the most traveled road because it does not make it the best one . (Lihl)
- The poem talks about our **taking decisions in our real life**. There are many ways to walk on and many temptations, however in most cases **we have to choose only one**. By listening to the poem for the first time and especially while watching the video, I understood that he talks about making decisions. (R.)
- The speaker of this poem realizes that **his choice of path will change his life**. But the speaker **won't know how his decision will change his life until it has already changed it**. (G.)



## Appendix 5 - The Design as a Metaphor

The Israeli class is seen as a tree within a forest of trees.



A community of trees

## Appendix 6 - Sample Synchronous Online Discussions I

Students first experiment with this and practice argumentation skills in response to a video and then to a quote introducing them to different aspects of the main theme.

A screenshot of a synchronous online discussion thread. The thread consists of five messages:

- Message 1:** A user with a blue profile picture posts: "I learnt from the video that making choices it is difficult in particular today that we have a lot of options like choosing a shampoo, but in the past we had less options like what she said about the cave man that he had less options, therefore it is more difficult to make choices today than in the past." The timestamp is 11:10 AM Dec 2, 2014. Below the message is a "Reply" button.
- Message 2:** A user with a blue profile picture posts: "Not all the decisions are tuff, like decide what shampoo to use." The timestamp is 11:12 AM Dec 2, 2014 (edited 11:13 AM Dec 2, 2014).
- Message 3:** A user with a brown profile picture posts: "?can you give us an example that we do not saw in the video" The timestamp is 11:15 AM Dec 2, 2014.
- Message 4:** A user with a brown profile picture posts: "whether to come to school or not" The timestamp is 11:22 AM Dec 2, 2014.
- Message 5:** A user with a brown profile picture posts: "yes L, like going to a restaurant and choosing the right meal on the menu" The timestamp is 11:36 AM Dec 2, 2014.

In the second synchronous online discussion there is already an improvement: students make connections, engage in discussion and support their opinion with arguments, and even correct their classmates' English.

A screenshot of a synchronous online discussion post. The post includes a video thumbnail, a timestamp of 21:44 3 Dec 2014, and a "Resolve" button. The text reads: "This quote reminds me a lecture <https://www.youtube.com/watch?v=IDq9-QxvsNU>. The lecturerer talks about how we make choices and how we feel about the choices we make". Below the post is a user profile for "suzanna.galante" with a timestamp of 18:41 13 Dec 2014. The user's comment reads: "Wonderful lecture indeed, ! I surely recommend other students to watch it and comment on it here."

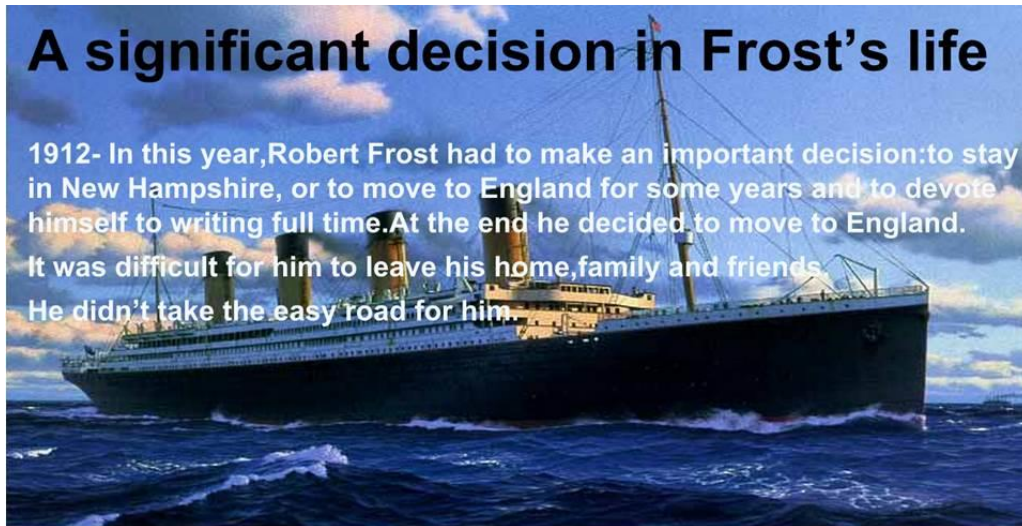
A screenshot of a synchronous online discussion post. The post includes a video thumbnail, a timestamp of 11:36 2 Dec 2014, and a "RESOLVE" button. The text reads: "In real life, important and critical decisions may need a long time of thinking about its influences and results. Of course, if you made a good decision, you will be satisfied with your life." Below the post is a user profile with a timestamp of 11:38 2 Dec 2014. The user's comment reads: "But sometimes we dont have a long time to make decisions." Below that is another user profile with a timestamp of 11:40 2 Dec 2014. The user's comment reads: "I agree with you. If we decide to make decisions quickly and recklessly our decisions will be bad and it will ruin our lives."

A screenshot of a synchronous online discussion post. The post includes a user profile picture, a timestamp of 11:41 2 Dec 2014, and a "Resolve" button. The text reads: "i agree with that sentence because every time we make a choice it effects our life and that's why we have to think twice before we make a choice." Below the post is a user profile with a timestamp of 11:42 2 Dec 2014. The user's comment reads: "affects\*"

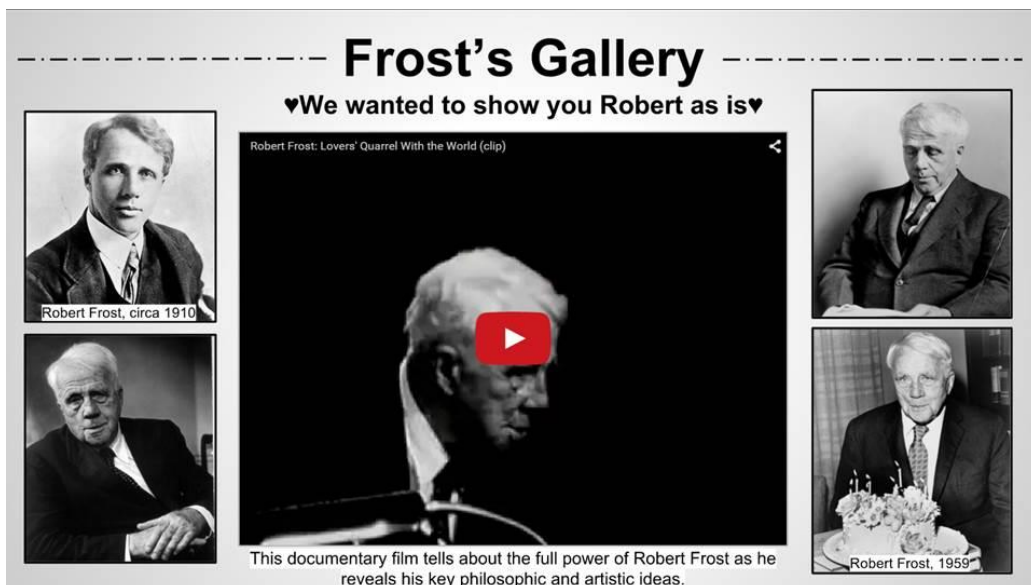
A screenshot of a synchronous online discussion post. The post includes a user profile picture, a timestamp of 11:37 2 Dec 2014, and a "Resolve" button. The text reads: "I cannot agree more with this sentence because every thing we are doing in our life influences our future" Below the post is a user profile with a timestamp of 11:40 2 Dec 2014. The user's comment reads: "\*influences"

## Appendix 7- KB through collaborative work in a shared presentation

Three students worked on the slide below. They searched for information which suited the title of the slide, discussed and evaluated different findings, and then synthesized them to complete the slide.



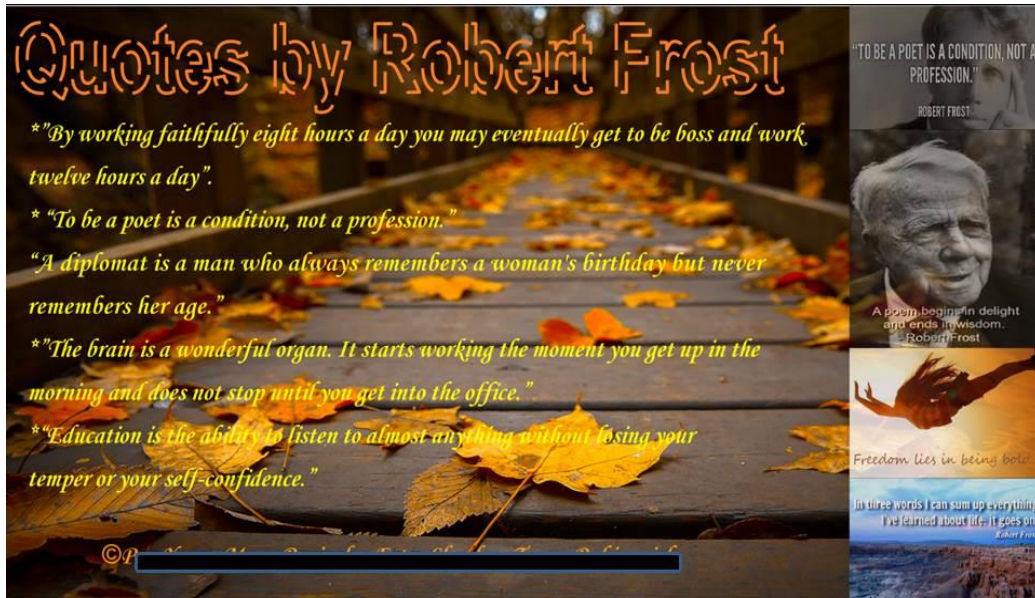
The copyright note at the bottom was written by the students who worked on this slide which was created of their own initiative - pseudonyms are used



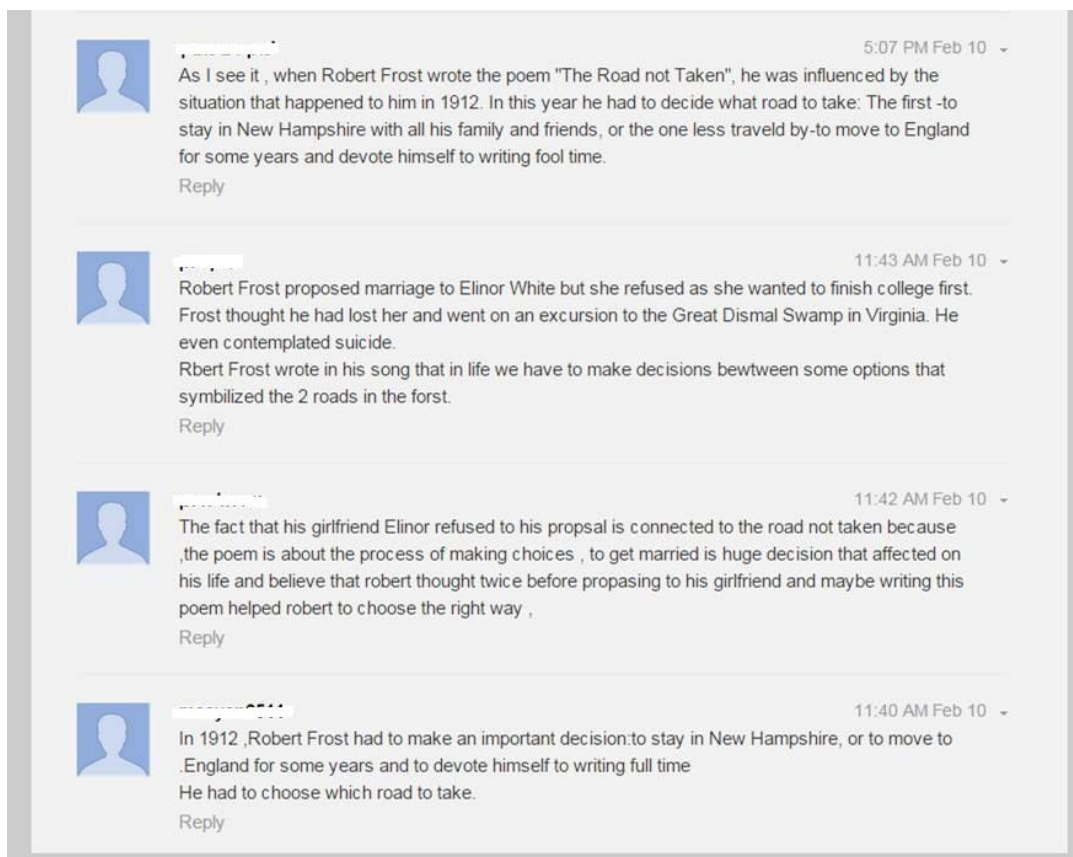
♥ Eli and Revital's work. :) ALL RIGHTS RESERVED! ♥

## Appendix 8 - Scaffolding prepared by the students for bridging

The artifacts below belong to the two first tasks in the Bridging section, were prepared by students and served as scaffolding for task 3 (essay writing for bridging).



In Task 2 students make connections between their completion of slides in Task 1 regarding the context and background of the author and the poem itself.



## Appendix 9 - Sample Questions Asked in Interviews

1. How did you feel about the learning environment? Was it different from the environment you usually learn English in?
2. Have you ever studied this way? If not, what main differences can you see? How do you think this way can help you if at all?
3. Was there any change in your learning as a result of the project?
4. Was there any change in your attitude towards English lessons in general?
5. Did your attitude towards literature change in any way?
6. Do you believe such experiences can be more productive/ enjoyable/ relevant than traditional learning experiences? Why? Why not?
7. What can you say you have learnt from this unit? Mention one thing at least.
8. Do you think that the fact that the discussions were visible to everyone helped you in any way?
9. How did you feel about the online synchronous discussions? What do you think are their advantages/ disadvantages?
10. Did you enjoy discussing topics with students in the comments windows? What was it helpful for?
11. How do you think collaborative learning can help you?
12. What is your opinion about the collaboration you engaged in within the class?
13. What do you think about knowledge? Does the learning for exams show knowledge?
14. Is there room for more than one opinion? How did you see this reflected in the project? Did anything in it make you see this differently?
15. Can you describe your experience when preparing a slide collaboratively in the Bridging section? Did other groups' work contribute to your learning?
16. Bridging Task: What did you find most difficult to do? How did you solve it? Could you find information easily? Did you have trouble deciding what to include? How did you enjoy working in a group? How did it help you complete the assignment? What bothered you, if anything? How different do you think it is to learn about the author's life and context he lived in this way from reading or getting notes on this?
17. What do you think about learning in a technologically-enhanced environment? Has your opinion on this issue changed as a result of the project?
18. How did the collaboration with the Dutch students affect your learning experience? Did the fact that a class in the Netherlands was studying what we were at the same time help you in any way?
19. Was there any benefit to the occasional international collaboration?
20. Did you do homework on the site? If not, why not?
21. Which section/ element from this environment did you like the most? Why?
22. Which section helped you understand the poem/ learn better? Why?
23. What can be the added value of studying literature by making connections with other things? Is this what you thought before the start of the project?
24. Did the Pool of Ideas help you in any way? If yes, how? If no, why not?
25. Metaphors: what did you think about the different completions we got for the same sentence?
26. What did you dislike? Why?
27. Which changes would you introduce?