

C a m a l

Contextual & Associational Map Learning

Main Idea :

A product that will allow and manage a collaborative lesson in which each student contributes their share according to their natural abilities and dispositions.

Camal starts with an idea that the teacher brings to class and like a stone that is thrown into the ocean and hits waves, the idea the teacher brought to the classroom makes waves of content (of many contexts) students bring up and collaborate using context thinking

Product Deliverables :

1. Content map of associations and contexts - interactive graphical map
2. Dynamic continuation learning products based on the material and content the students brought - worksheets, tests, assessment tools.
3. "Brain areas map" of students/classes

For example :

The teacher will bring to class the "starter" topic which can be a local / global news topic.

The "Starter" topic: Amazon rainforest is burning



Connections (map) to this topic:

1. **Human / Culture** - Who lives in the rainforest, what are their habits
2. The **animals** in the wild - which animals live there and their uniqueness
3. **Geography** - where is the Amazon rainforest located ? Cross-border forest, countries bordering Brazil
4. **Chemistry** - Chemistry of fire, oxygen, carbon dioxide



5. **Biology** - the plant life cycle, the importance of the forest to the biological ecosystem
6. **Economics** - Economic aspects of the fires (Farmers economy/Brazil economy/world economy)
7. **Politics** - Brazil's prime minister under a global attack
8. **Sports** - Soccer teams from Brazil ?
9. **Art** -students can draw / create art work related to the fire
10. **Press** - Top Articles, Top Journalists
11. **Entertainment / Celebs** - How this subject is related to the entertainment world
12. **Activism / Social**- How the issue is expressed on social networks. activist propaganda
13. **Other** - children can create their own (optional)

Values :

Empowerment - Everything is accepted.

Free Choice - Each student freely chooses a topic that he thinks is related to the main topic presented.

Free Mind - students can use the "correct" side of the brain that is natural to them.

Common Knowledge - students will expand vastly their common knowledge.

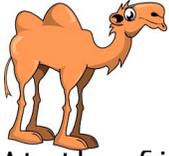
Equality - all contributors are equal on the board

Relevancy - the students decide what the content will be

Continuity - next lesson will always continue the former one (map is always alive and growing)

Personalization - the system will be able to determine the strength of a student and suggest ways to work on other areas of the brain.

Rules/Logic : Every student must contribute an idea to the board, even if it doesn't seem related to the topic presented.



At the first lesson the teacher explains the method and the idea.

The student must specify the context for the topic presented. (as the example below)

If he does not find context, the teacher should help him find the context. If the student brings up something that lacks connection to the main topic, it will be listed as "less" relevant work (the student does not know it-> lower points).

Associations can be from different disciplines.

The teacher can let students **vote** on the content section that is most relevant/appeal to them - playful / competitive.

Student the won earns more points.

The teacher can let students **choose** the section they want to focus on in the next lesson and it will be the opening topic for next time , the map continues to expand and evolve from lesson to lesson.

Outcomes / Features :

The system can create, at the end of the lesson, some worksheets / vocabulary list / tests, **based** on the selected content the students chose.

The teacher can ask the students to choose 1 item on the board and read it at home / relate to it in any other way.

Allow each student to view and search the content of all lessons.

Allow each student to give a "grade" to an item.

Maps can be published **across classrooms** and in the next lesson the teacher from another discipline continues the association according to his discipline. Teacher continue other teacher lesson across disciplines.

For example, in English class, the teacher starts with a certain idea earlier this year. Throughout Lesson / X Lessons a map of associations develops. Another class gets the map and selects one topic from the map it wants to continue...



Different levels of maps - There is a classroom map , a layer map , a school map , international map.

In this way, all students of the school share and determine the content being taught.

You can link and find common elements within different maps

Applicability & Benefits: Can work in the classroom **today** even without the need to change / add infrastructure.

Can fit any discipline.

Can accommodate any level of students, including students with learning disabilities of any kind.

Can fit any country and any language.

This is a platform.

Data Gathering :

The students connect to the system and from that moment the system "records" all their actions on the phone/table/PC.

The data that will be collected will include : web analytics data: web pages,clicks,impressions (?),time on page,usage of tools like translators.

Data about the students will also be inserted into the system. areas of interest,learning disabilities (if any),personal data.

A BI mechanism will allow analysing the data with any matrix needed at student/class/many classes/school/city... levels.

Product Main Modules:

- Classroom / Students data (amount,name,age ...)
- Lesson data - Start time / topic
- Content related data (grade , owner ..)
- Data Analysis
- Worksheets /tests creator based on the content of the lesson.



Yael Gur , 3/10/19 , Israel

Camel picture was a free clipart taken from : will be used just for this presentation
<http://clipart-library.com/clipart/507523.htm>



Appendix :

This is a copy for myself of the form I have inserted into the hackathon website :

Solution description :

CAMAL is a technology tool for **content sharing in a particular context**, a tool that measures the quality and relevance of the content and the "depth of digging" to bring it about.

It **grades** and scores each student for the content they have found and shared in the classroom. It can be used in any technological environment, anywhere, in any classroom and language configuration.

In my English classes, for example, I use this idea to create relevance for the students and expose them to local and global news topics. By making their **personal connection** to the content they are more **committed** to learning and can also contribute to peer evaluation.

For example, this tool can ask all students to bring content they find relevant to our topic AND choose 5 new words they wish to share with the class or to add to our vocabulary list (that can become later a test which is collaboratively build by the students).

At the end of the lesson, students can **graphically** see all the content they brought and **vote** for the content item they found most interesting **and it will become the next "idea" which the next lesson will begin with** and from this new topic the map continues. The content map and collaborative learning becomes a **living organism**.

In the attached presentation you can see, for example, the theme of "**fires in the Amazon rainforest**", which captures many content and information that children can upload from the web, starting from videos, newspaper articles to art. The content information they upload will be **cataloged** to the subjects by them and will create a tapestry of information in various contexts for the topic presented and which each student has brought as per his **tendency**.

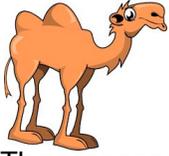
Issues related to Amazon animals, agriculture, politics, oxygen stores in the world, activism, celebs who go out to protect the woods and space photography.

Students can learn through this news item about chemistry, biology, economics, geography, activism , politics and more.

Solution context

The proposed solution solves problems and obstacles that both the teacher and the student have in their desire to achieve meaningful, effective and, most importantly, **relevant learning**.

The teacher has the responsibility to stick with teaching content that is not always relevant to the student's world, does not enrich the students with relevant knowledge and does not equip him with relevant tools for the future.



The proposed solution emphasizes enhancing and learning **content search capabilities**, distinguishing between essentials, and diagnostic ability of quality content. All this prepares students for important skills of **broad thinking in various fields**, ability to **find relevant information** and **understanding their context** for the topic. These skills will be used in any preparation, presentation, self-presentation or future job interview. The students will accomplish broader local and global knowledge, with a firmer opinion on issues around the world and with the ability to search, read and bring relevant information.

Values :

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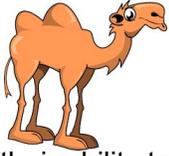
Personalization - the system will be able to determine the strength of a student and suggest ways to work on other areas of the brain. or to strength the nature way of thinking of particular student.

Time to market - teachers can deliver and create value and meaningful learning very quickly without spending hours on preparing a new lesson. the focus is moving to the students and the teacher acts like a **mentor** and **guide**.

target group :

The target group are teachers from **any discipline** who wish to bring a different lesson to their students, that will be much more interesting and meaningful for the children.

Both students and teachers come out to benefit from the proposed solution. The success of a lesson that eventually expands students' general knowledge also affects the entire society and



their ability to grow as influential adults who are connected to what is going on around them and can form an opinion.

Teachers also can have more in-depth **assessment tools** that can **analyze** a student's ability to analyze information and bring relevant information.

The tool over time will study students' **thinking patterns** and be able to indicate their thinking ability and type of thinking, whether it is more analytical , artistic or creative.

At the **classroom level** the teacher will be able to diagnose the class and make class-level cuts about their abilities. The same information reports can be analyzed **compared to other classrooms** or other schools that will use the tool and see what and how to improve.

The tool will help students find their strengths and guide them to their strengths.

Applicability & Benefits: CAMAL can work in the classroom today even without the need to change / add infrastructure.

Can fit any discipline.

Can accommodate any level of students, including students with learning disabilities of any kind.

Can fit any country and any language.

This is a platform for a different way of learning which is more dynamic and **surprising**

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Solution Impact :

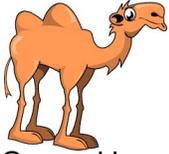
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Data about the students will also be inserted into the system. areas of interest,learning disabilities (if any),personal data.

A BI mechanism will allow analysing the data with any matrix needed at student/class/many classes/school/city... levels.



General knowledge tests can be conducted for classrooms that use the tool versus classes that do not use the tool and see the differences.

It is also possible to examine differences between comparison groups and to **diagnose** their ability to **find information** effectively and quickly which is a very important and critical skill today and in the world to which they are growing to.

Product Main Modules:

- Classroom / Students data (amount,name,age ...)
- Lesson data - Start time / starter topic
- Content related data (grade/score , owner , vocabulary , test questions ..)
- Data Analysis
- Worksheets /tests creator based on the content of the lesson.

Describe in a Tweet :

We invite you to a journey into new worlds of knowledge through collaborative, graphic and interactive tool that enables meaningful, innovative and fun learning. Come for a ride on our CAMAL to explore new things.

Innovativeness :

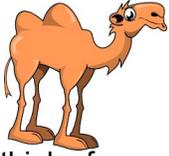
This tool is a "living" collaborative conceptual map that a group has created and is being measured while creating it .

This is a different "map" , it is more of a shared journey of a group of students that creates their own path of learning. They are actually creating their own learning book or learning materials.

The teacher acts like a guide and a mentor and helps them connect all the pieces and find relevancy to the starter topic.

the students and teachers come to class without knowing exactly where they are going to be today in terms of new areas of knowledge.

the tool lights up their curiosity and leaves them with a lot of new knowledge and new way of looking at things and looking even on news items. Next time they will see a headline they will



think of many aspects related to that "flat" news item. they will understand that there are many aspects to that piece of news.

Transferability

Sure !!

This solution can easily be used in any class , any language , any disciplinary.

This tool can also be used as an evaluation process for students.

The tool can be used anywhere and doesn't require any infrastructure beside wifi.

Sustainability

Regarding implementation all is needed is to download this application to your phone/PC and initiate it with class/students data.

Every class will get a lesson code and the students will connect to it at the beginning of the lesson.

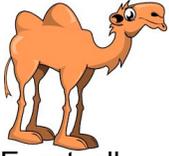
every activity in class will be recorded and saved in a cloud based DB.

Students will be able to lookup the map and do homework according to the map outcomes. they will not be able to change other students items but they will be able to answer questions other students will display for them.

Team :

The team was brought together by the organizers of the Hackathon.

I (Yael Gur) came up with this idea and we did some brainstorming within the group that really helped to form a basic idea/



Yael Gur , 3/10/19 , Israel

Eventually we were left as a team of two - Myself and the team mentor Anat Maor.

I am a 48 year old mother of two children, living in Tel Aviv. After 23 years in the high-tech industry as a systems analyst and project manager, I did professional teaching. I am a new teacher and still a student, teaching middle school in 7th grade. You were an entrepreneur in my character and love technology and innovation. I have a bachelor's degree in economics and business administration, I studied computer game design at Shankar.