

OUT OF SCOPE

Requirement:

We want to adapt the design of the tool to our individual style.

(idea: adapt colors of the UI, or select preferred tools in the toolbar)

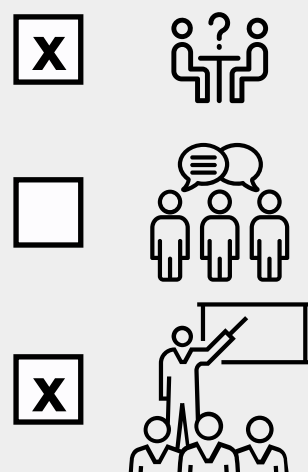
(new ideas: select background of maps)

Meta data:

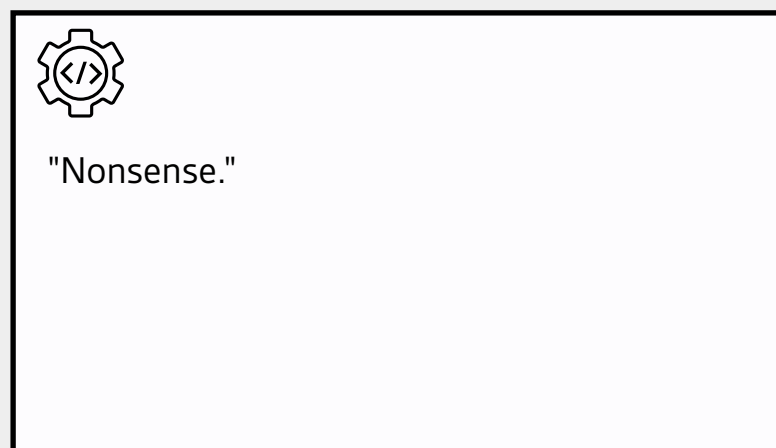
who?



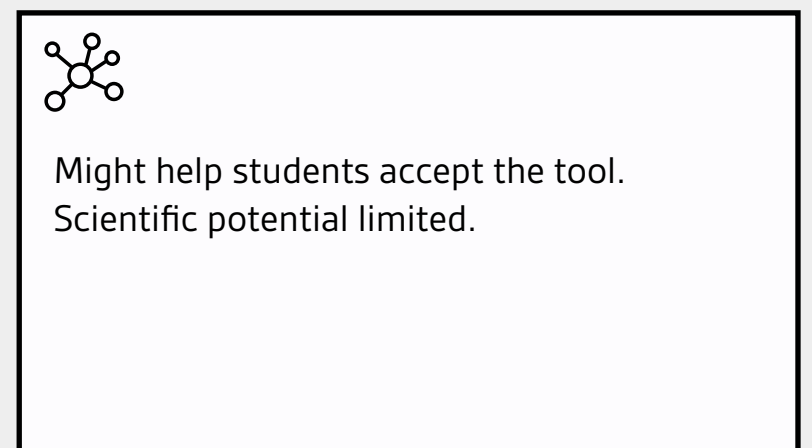
where?



developers?



potential?



Requirement:

We want to draw concept maps on the touchscreen.

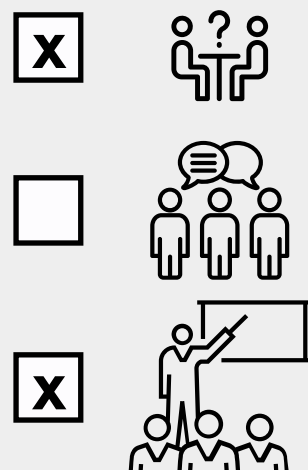
(most participants argue for a recognition of forms, some do not want maps to look perfect, some want character recognition)

Meta data:

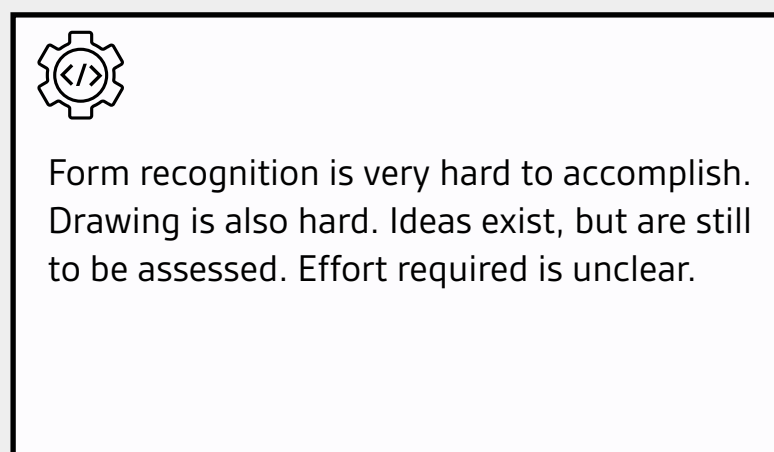
who?



where?

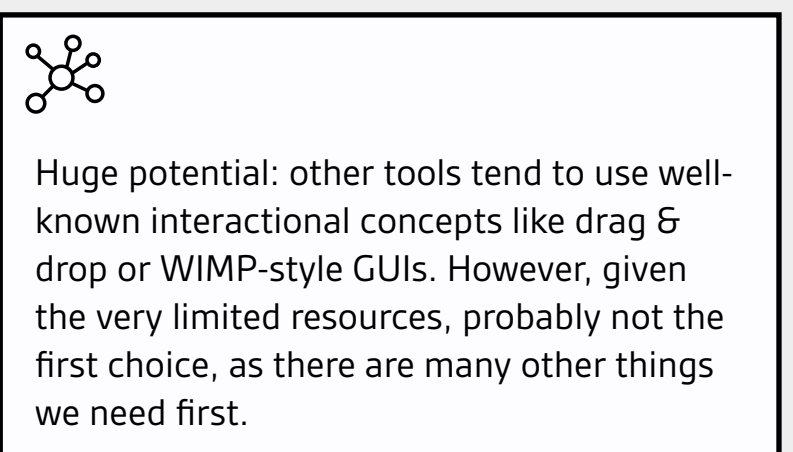


developers?



Form recognition is very hard to accomplish. Drawing is also hard. Ideas exist, but are still to be assessed. Effort required is unclear.

potential?



Huge potential: other tools tend to use well-known interactional concepts like drag & drop or WIMP-style GUIs. However, given the very limited resources, probably not the first choice, as there are many other things we need first.

Requirement:

We want the tool to run in a browser, but also offline.

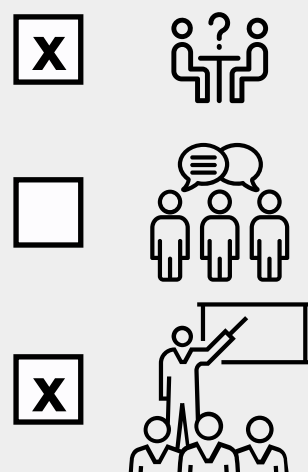
(new ideas: also Android & iOS apps, and some participants spoke about their observation that some schools have bad wifi access)

Meta data:

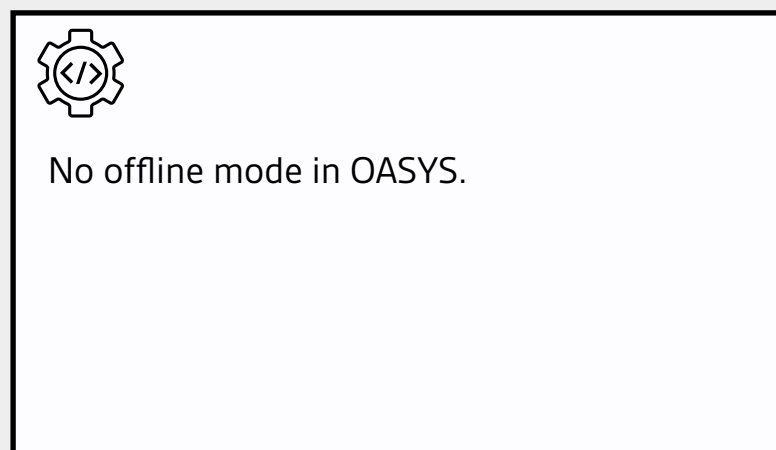
who?



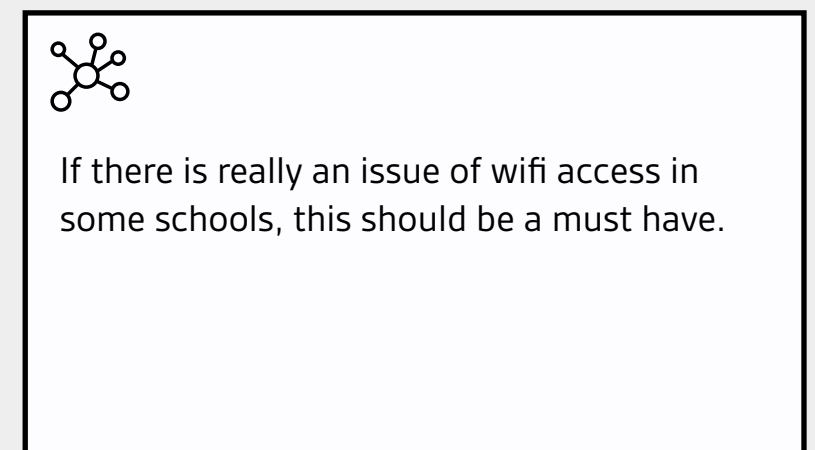
where?



developers?



potential?



Requirement:

We want to group elements and links, and then provide alternatives for these groups.

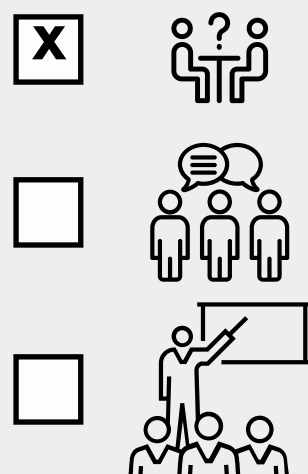
(idea: "this group shows how it currently is, but this alternative group describes a way to make the current state of affairs better")

Meta data:

who?



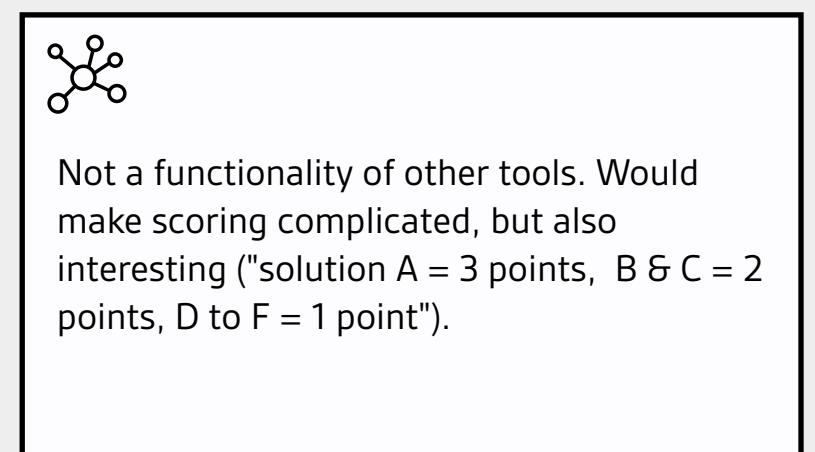
where?



developers?



potential?



Requirement:

We want quiz-like functionalities to help us learn, and gamification elements to motivate us.

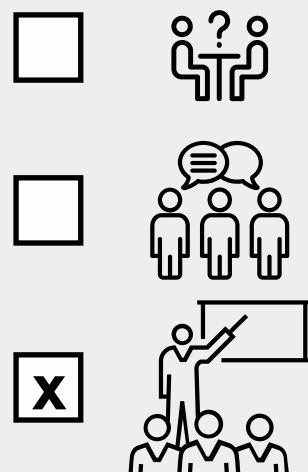
(!= 1 teacher pointed out he does not like gamification)
(formative assessment)

Meta data:

who?



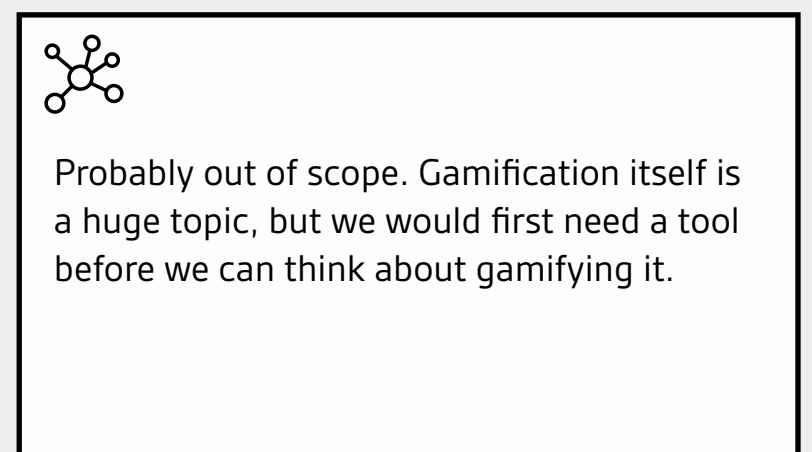
where?



developers?



potential?



Requirement:

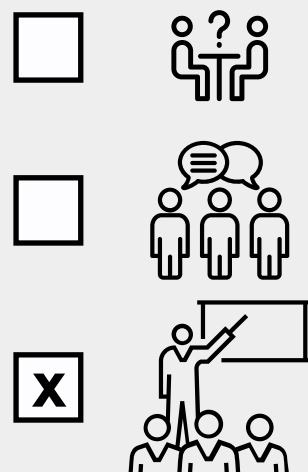
We want to see the maps of our students while they create them on our teacher device.

Meta data:

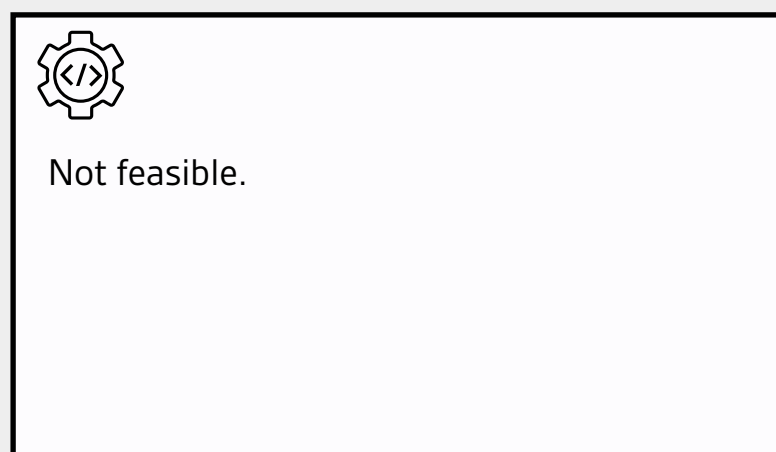
who?



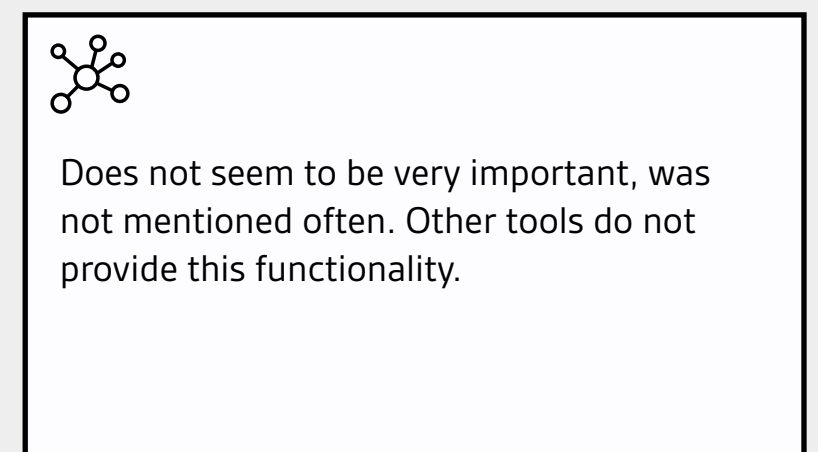
where?



developers?



potential?



Requirement:

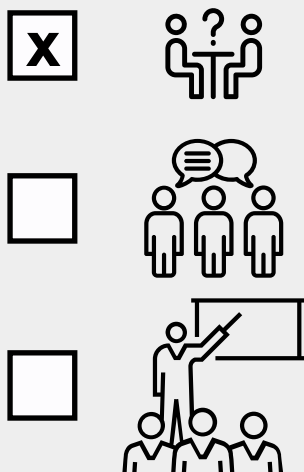
We want to define groups of students to work on a map.

Meta data:


who?



where?




developers?



Is not considered part of the tool, but of the work in class, and thus the pedagogical advice document.

potential?



Yes, teachers could do this outside the tool. I still assume they would expect this inside the tool, because they think in classes and would want a tool to reflect this. Otherwise, it could maybe integrate into existing other tools, like One Note (to be determined).

Requirement:

We want to work in groups on a map, each on our own devices.

Meta data:


who?


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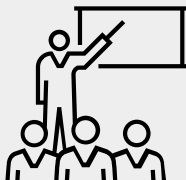
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where?

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developers?



Not feasible with the current OASYS infrastructure (in theory, technologies exist to do this).

potential?



Few tools offer this kind of collaboration, as it is technologically tricky. Would also not consider this a must-have.

Requirement:

We want the tool to also run on a smartphone.

(ideas: 1x teacher doubts that smartphone screen estate is sufficient for concept mapping)

Meta data:

who?

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where?

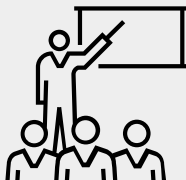
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developers?



NEW.

potential?



Might be worth investigating.

Requirement:

We want the tool to distinguish a novice vs. expert mode.

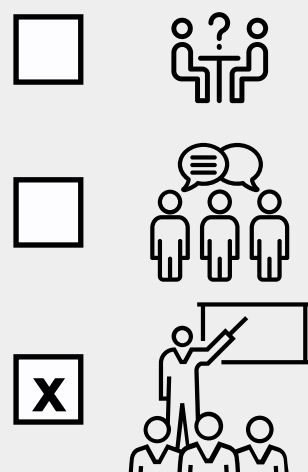
(idea: only provide basic functionalities to novices, than reveal more and more options when students become used to concept mapping)

Meta data:

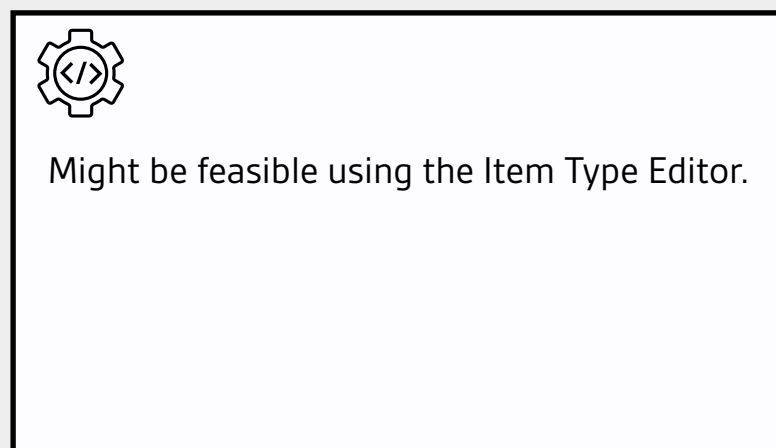
who?



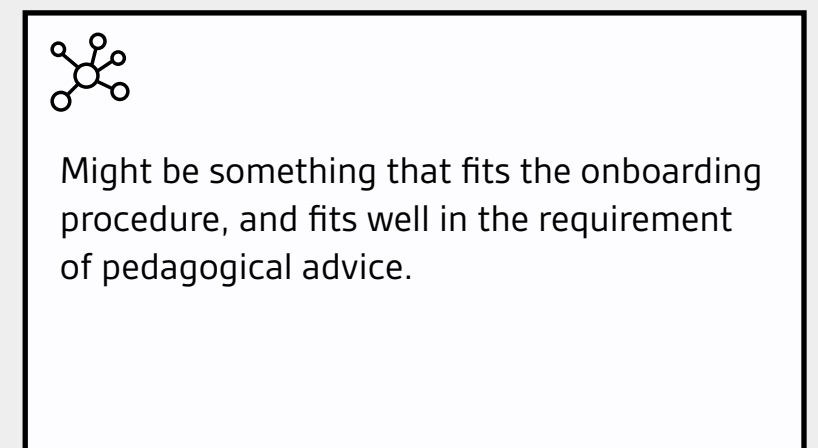
where?



developers?



potential?



Requirement:

We want to communicate with each other while we create maps.

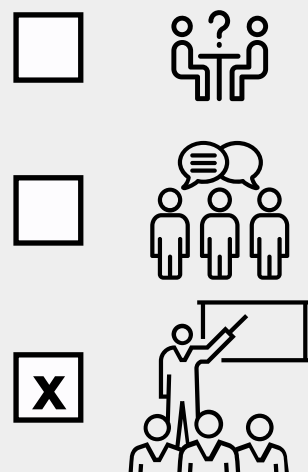
(ideas: chat function, comment function)

Meta data:

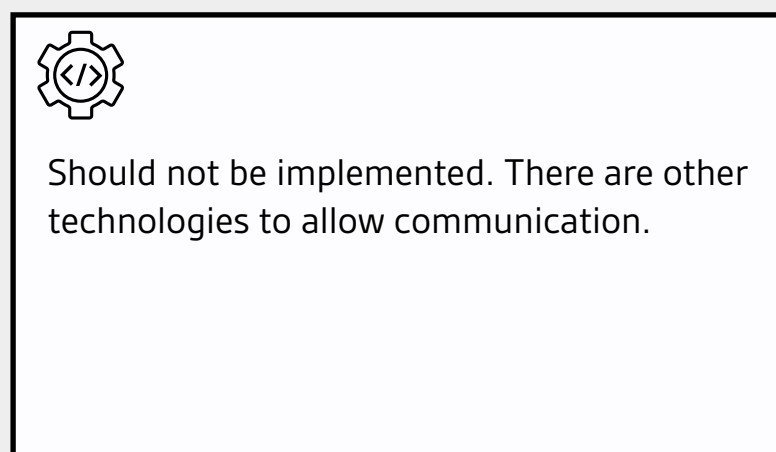
who?



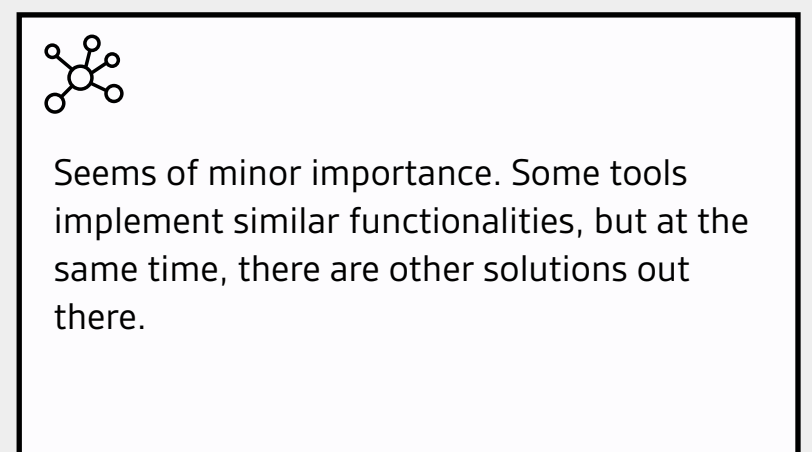
where?



developers?



potential?



COULD HAVES

Requirement:

We want a history with all of our maps in one place.

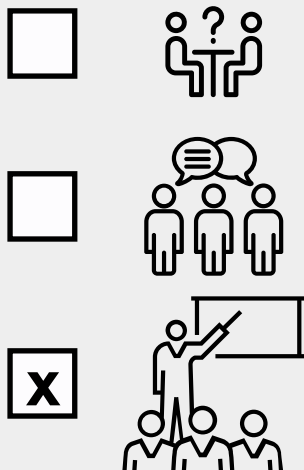
(ideas: personal profile with a log in)

Meta data:

who?



where?



developers?

Cannot be realized because students do not have these rights. Might be feasible for teachers, but only with the Results Manager, which will not be programmed until year 3.

potential?

Students will probably not understand why they do not have the right to see their own maps, and this would limit the tool's potential in formative assessment.

SHOULD HAVES

Requirement:

We want a "wizard" that helps us set preferences according to our needs.

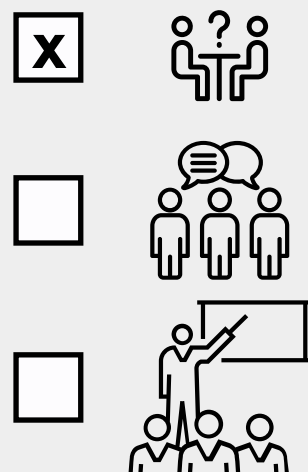
(ideas: select topic areas of a map, or kind of map, then the tool sets options that help to create this kind of map)

Meta data:

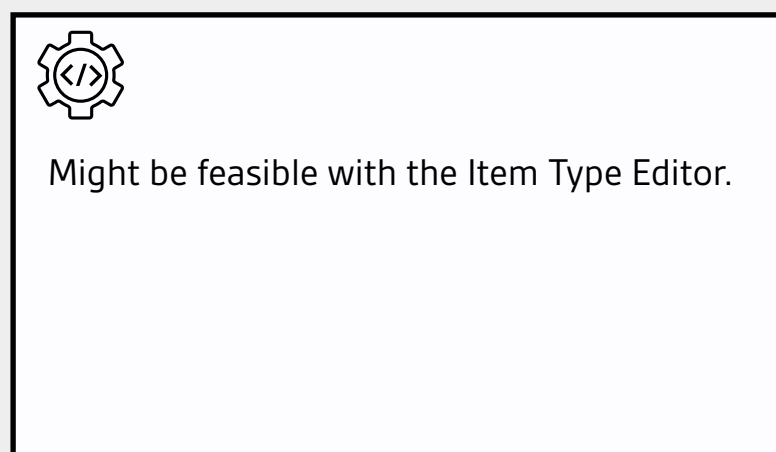
who?



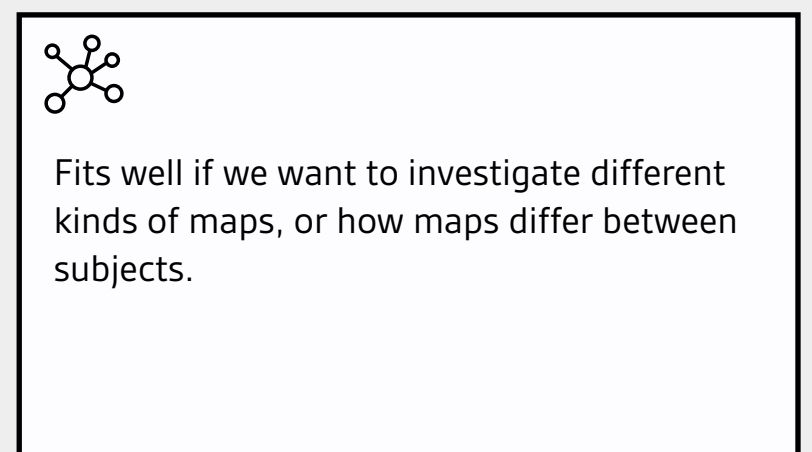
where?



developers?



potential?



Requirement:

We want an onboarding process and help functionalities.

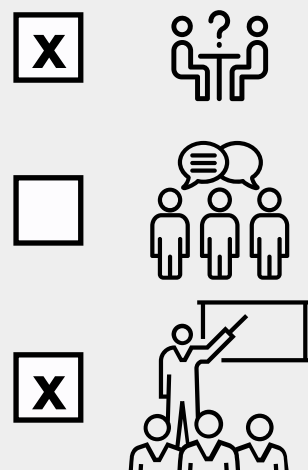
(ideas: tutorial, overlay with main functions, step-by-step explanations, "level-up" style of explaining concept maps from easy to hard)

Meta data:

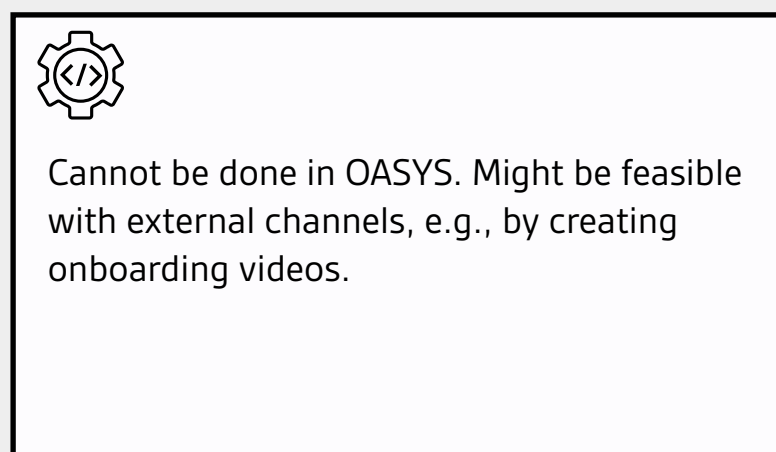
who?



where?

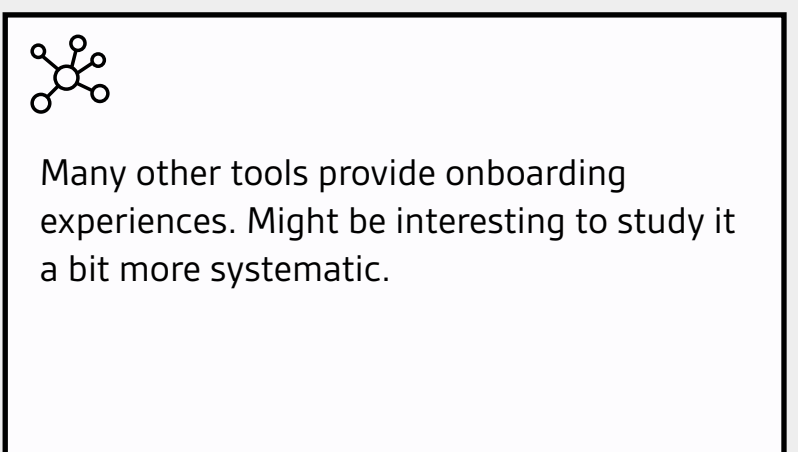


developers?



Cannot be done in OASYS. Might be feasible with external channels, e.g., by creating onboarding videos.

potential?



Many other tools provide onboarding experiences. Might be interesting to study it a bit more systematic.

Requirement:

We want to be able to group elements, and then work on these together.

(ideas: sub-networks that users can turn on and off to get an overview or see the details)

Meta data:

who?

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where?

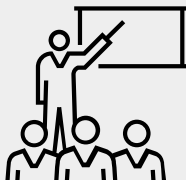
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developers?



NEW.

potential?



Could help to bridge the opposing needs of seeing all in one place vs. not having crowded maps.

Requirement:

We want the tool to show us errors we made, so that we can learn from them.

(formative assessment)

Meta data:


who?


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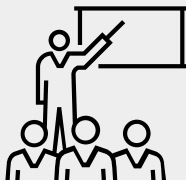
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where?

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developers?



NEW.

potential?



Should be feasible if the mapping task is directed. Not a functionality of other tools.

Requirement:

We want the tool to show different possible solutions to tasks if we do not know what to do.

(formative assessment)

Meta data:


who?


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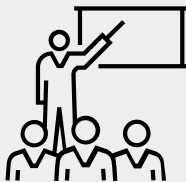
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where?

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developers?



NEW.

potential?



Should be feasible if the task is directed. Not a functionality of other tools.

Requirement:

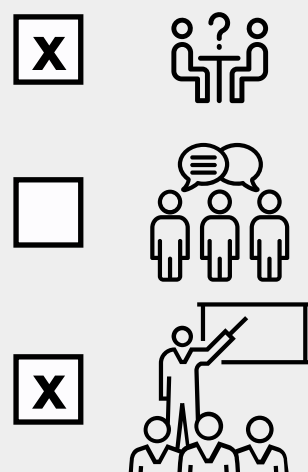
We want a dashboard with the students in our classes and the maps they created.

Meta data:

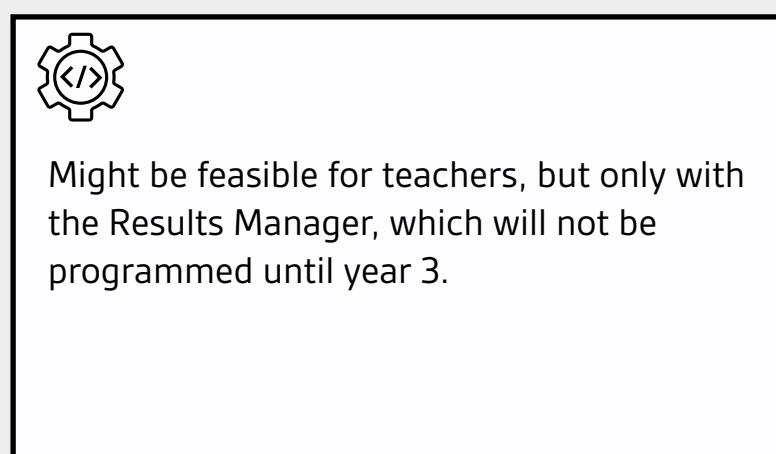
who?



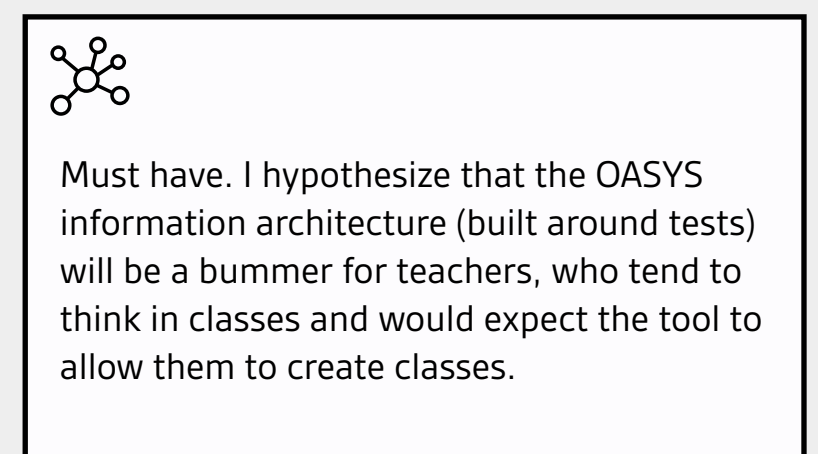
where?



developers?



potential?



Requirement:

We want undo & redo functionalities.

Meta data:

who?

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where?

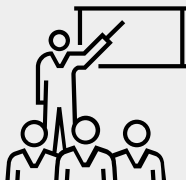
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developers?



NEW.
Currently available, but might interfere with the logging idea.

potential?



We might have to trade off: undo/redo or logging?

Requirement:

We want the tool to also run on a giant touch table or whiteboard.

Meta data:

who?

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where?

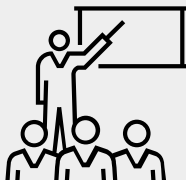
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developers?



NEW.

potential?



Might be worth investigating.

Requirement:

We want to be able to create maps anytime on our own, as we wish.

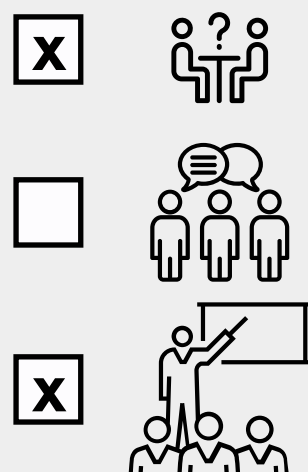
(idea: viewed as necessity in formative assessment by teachers)

Meta data:

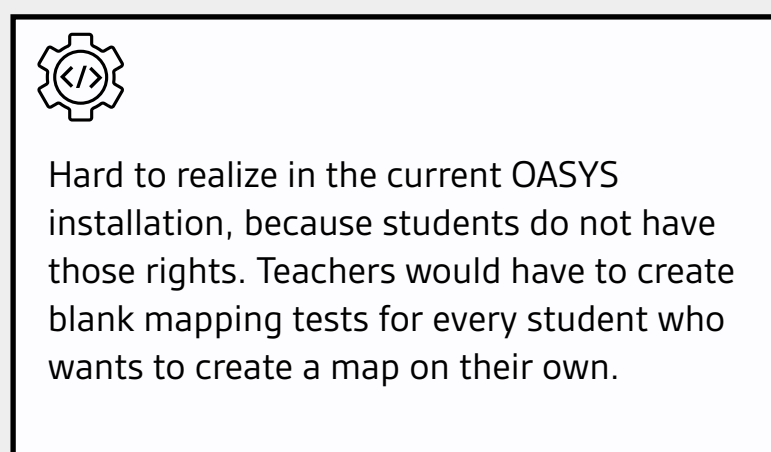
who?



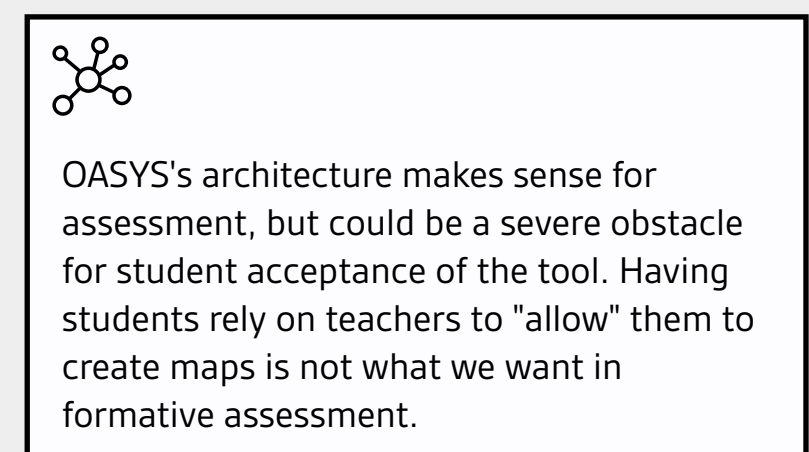
where?



developers?



potential?



Requirement:

We want an easy way to share mapping tasks.

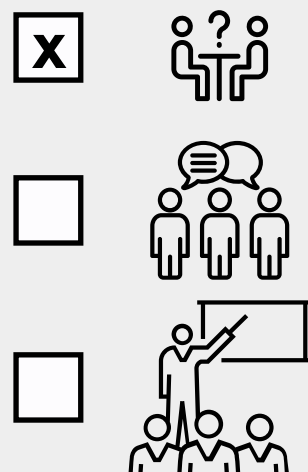
(idea: using an individual link, or by entering a random number)

Meta data:

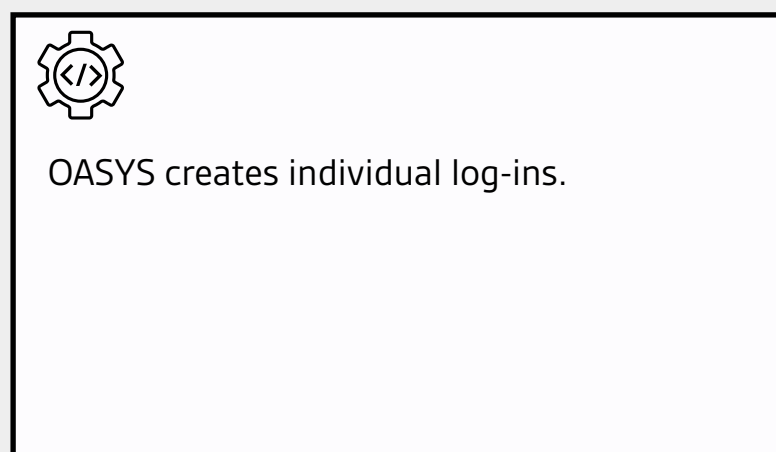
who?



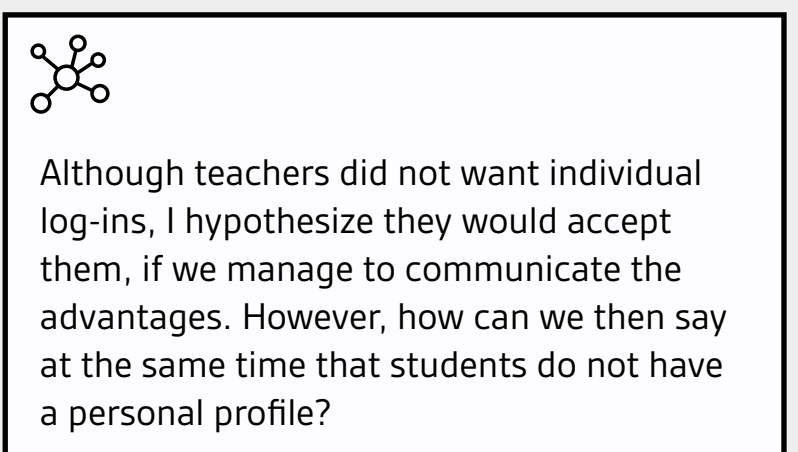
where?



developers?



potential?



Requirement:

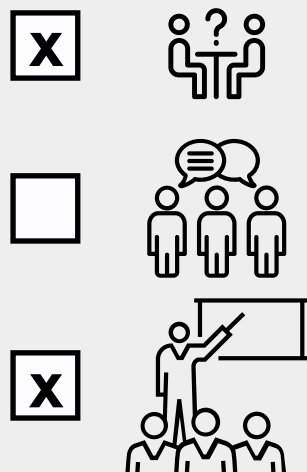
We want to work in groups on a map, on a shared device.

Meta data:


who?



where?




developers?



Is not considered part of the tool, but of the work in class, and thus the pedagogical advice document.

potential?



Doing all of this outside of the tool might be feasible. Would still be an issue, because the teacher would have no trace of who was in which group.

Requirement:

We want to give individual tasks to students in our class.

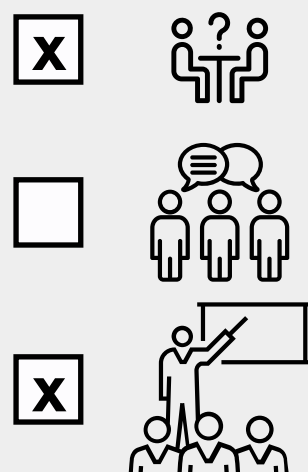
(ideas: more freedom for strong students, more guidance for weak students)

Meta data:

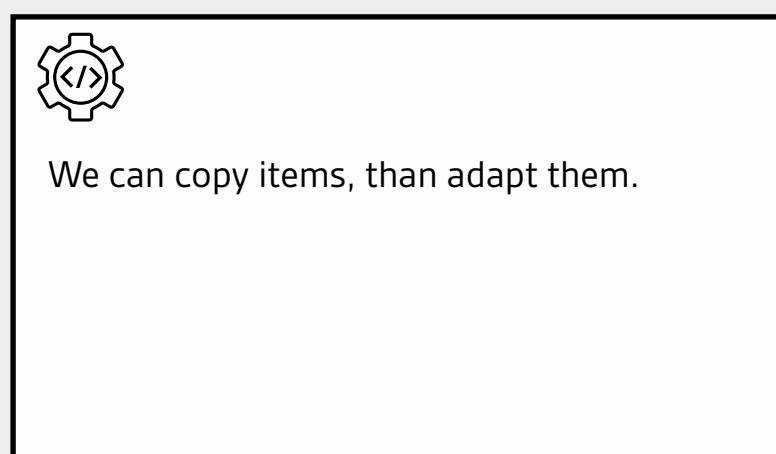
who?



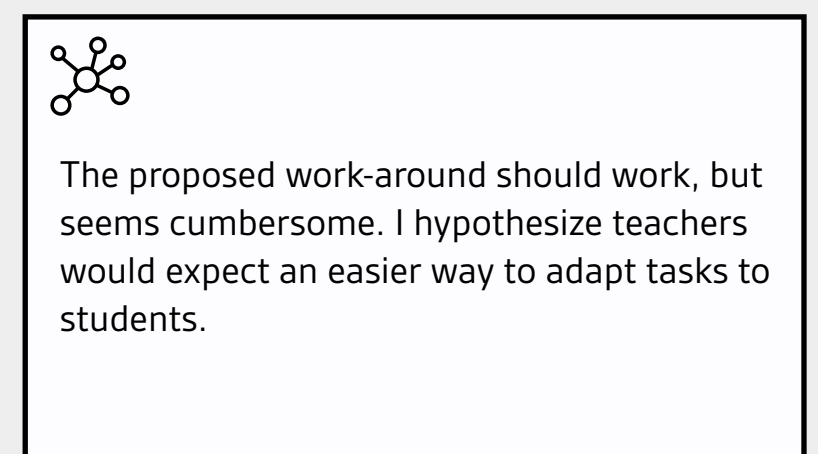
where?



developers?



potential?



MUST HAVES

Requirement:

We want an easy to use, intuitive interface.

(ideas: reduced to the bare minimum, not much that distracts attention, inline options that adapt to the context)

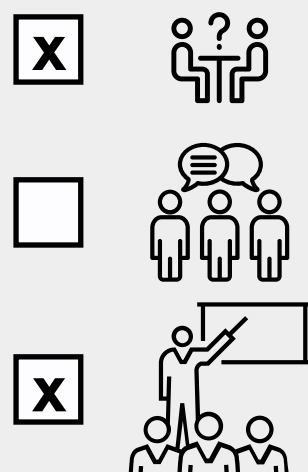
~ pragmatic aspects of user experience, ~ usability

Meta data:

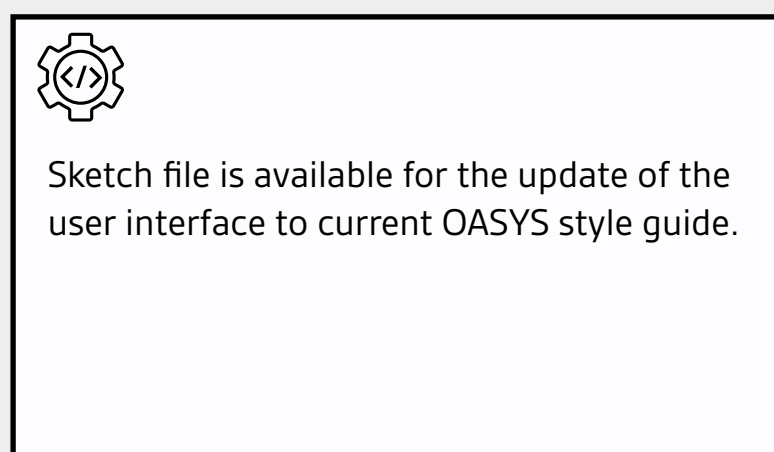
who?



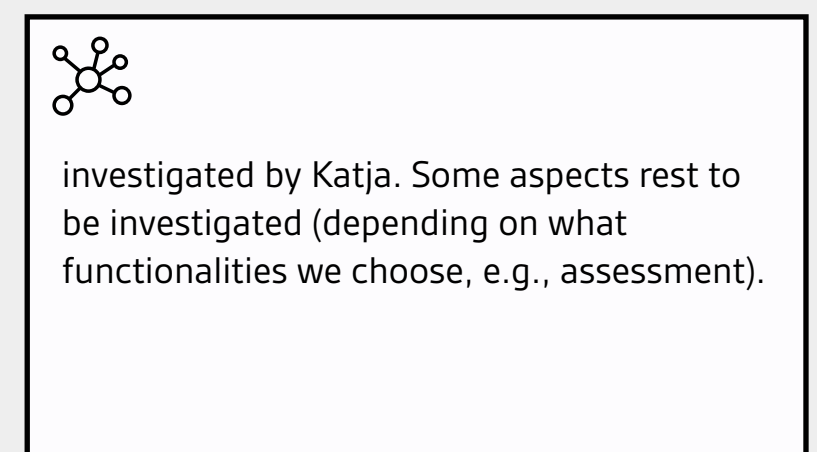
where?



developers?



potential?



Requirement:

We want stimulating aesthetics to spark interest.

(ideas: presentation mode, animations)

(new ideas: the design should also look trendy, so that students accept the tool)

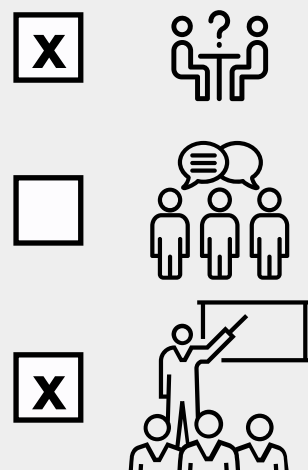
~ hedonic aspects of user experience, ~ fun, emotions

Meta data:

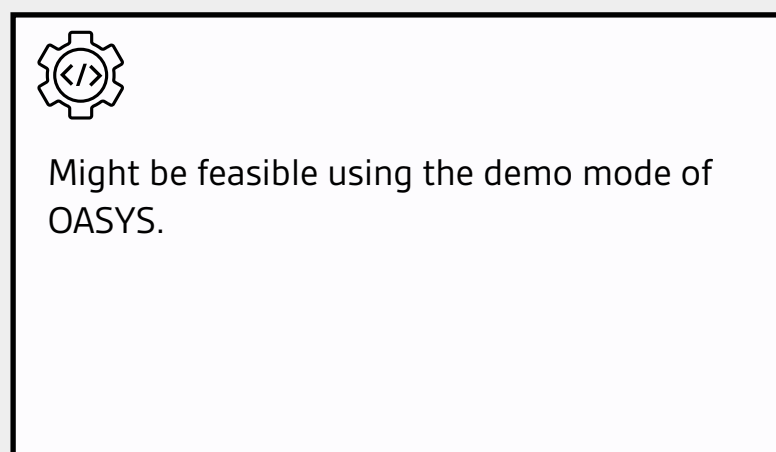
who?



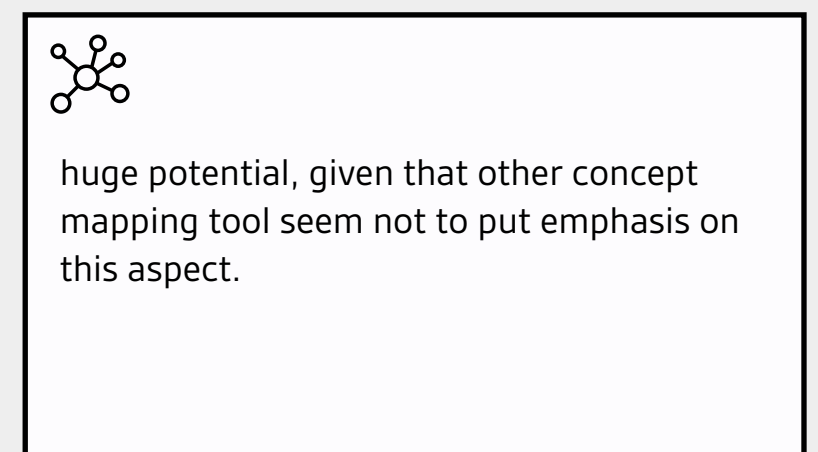
where?



developers?



potential?



Requirement:

We want multimodal concept maps.

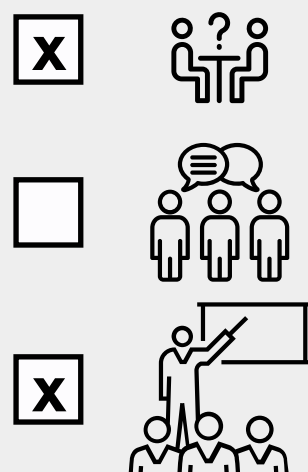
(e.g., define shapes and colors, provide a legend of meanings, include photos, audio & video in elements, have labels and descriptions inside elements)

Meta data:

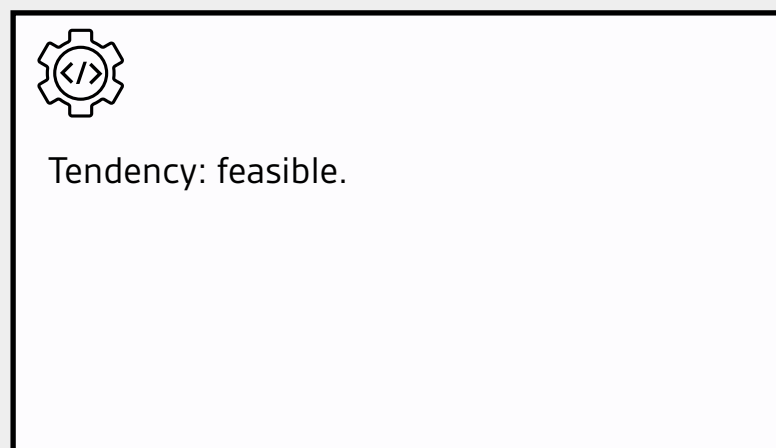
who?



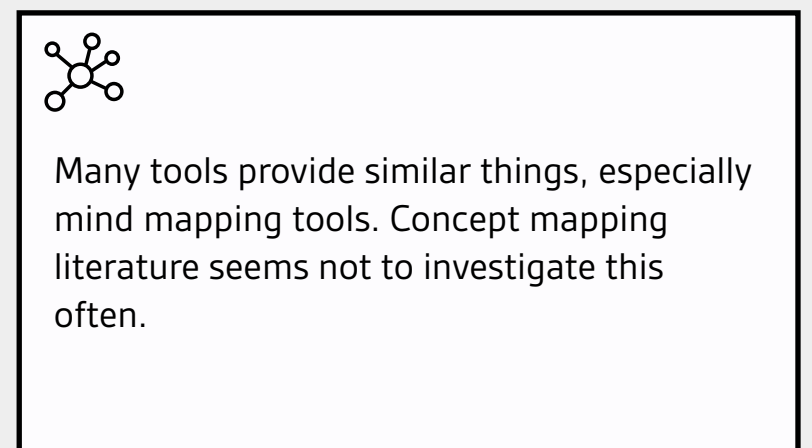
where?



developers?



potential?



Requirement:

We want auto-saving maps.

Meta data:

who?

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where?

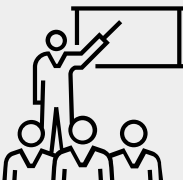
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developers?



Feasible.

potential?



Must-have.

Requirement:

We want to be able to share concept maps.

(ideas: export as PDF, images, video)

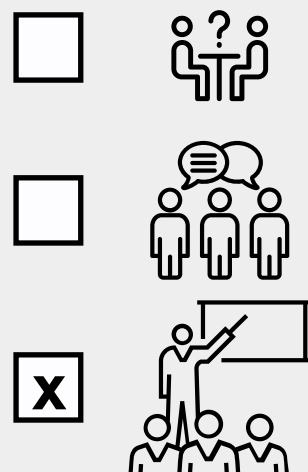
(new ideas: set rights when sharing maps)

Meta data:

who?



where?



developers?



General problem: OASYS implements such a function in the backend (for test creators), not in the frontend (for test takers).
Might be feasible with a print stylesheet & leave the PDF creation to the OS. Or export as SVG.

potential?



User research indicates this is an important requisite for accepting the tool. Scientific potential seems limited, and other tools already provide substantial export options.

Requirement:

We want to add weights to connections to specify which ones are more important than others.

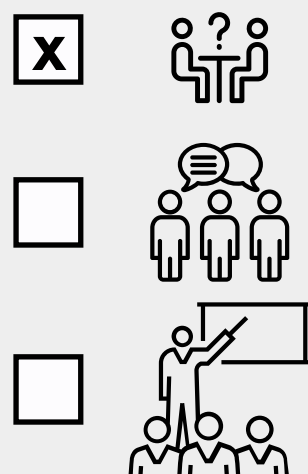
(ideas: table with values of propositions, or thick vs. thin lines)

Meta data:

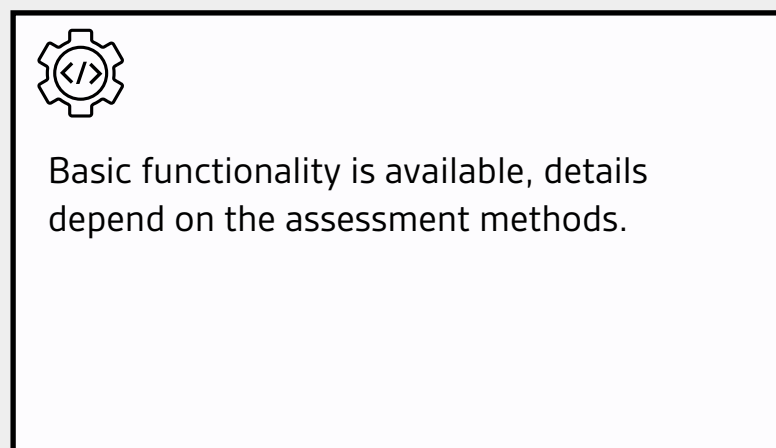
who?



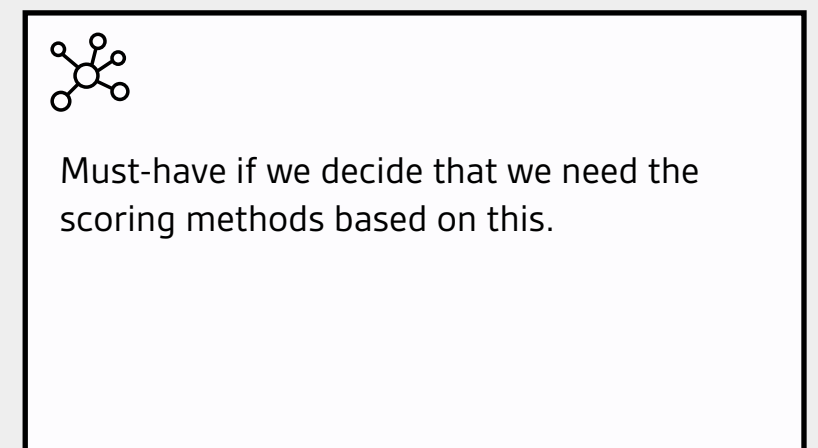
where?



developers?



potential?



Requirement:

We want the tool to suggest ways to make the map look cleaner.

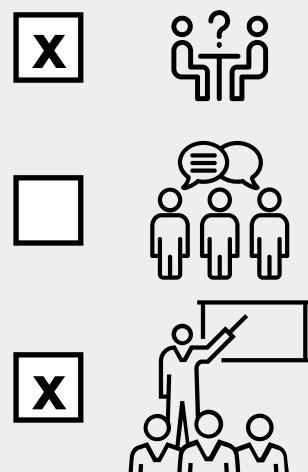
(ideas: auto-placement of elements, e.g., along a grid, or left-align all selected elements)

Meta data:

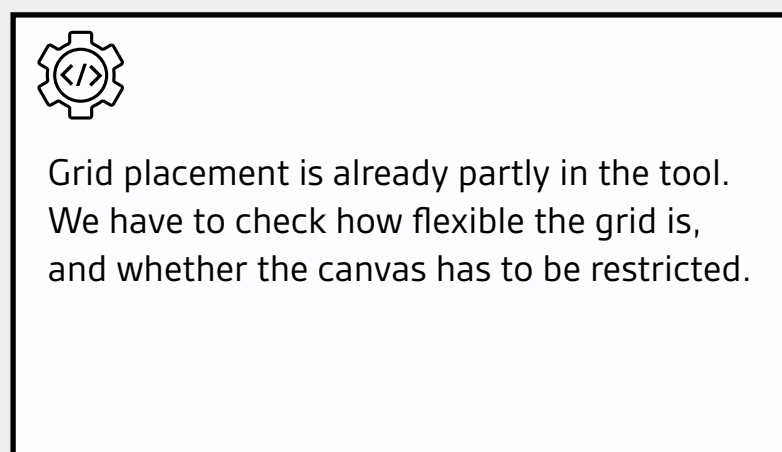
who?



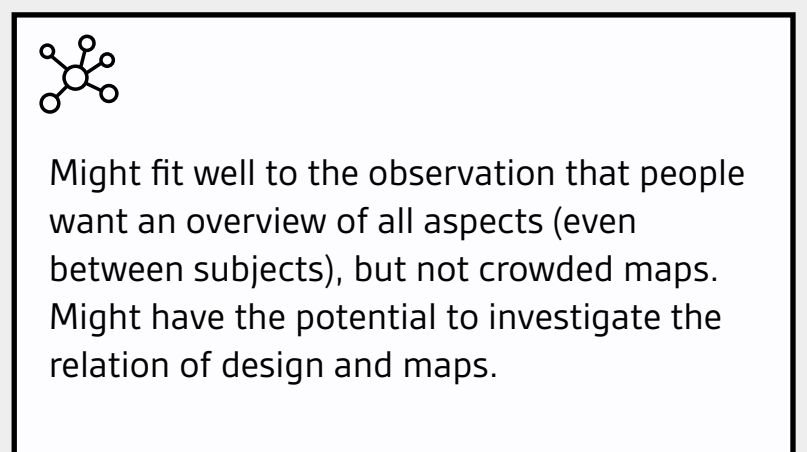
where?



developers?



potential?



Requirement:

We want to print concept maps.

Meta data:

who?

☒



☒




☐




where?

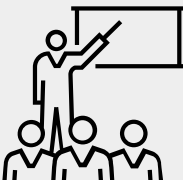
☒




☐



☒




developers?



Feasible.

potential?



Must have.

Requirement:

Calculate scores based on network theories.

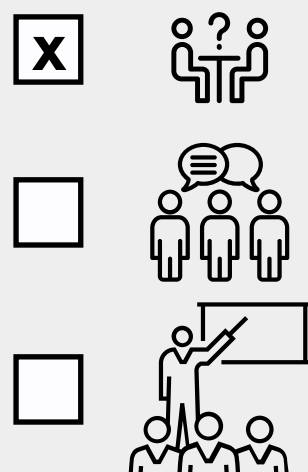
(work in progress, to be defined in paper)

Meta data:

who?



where?



developers?



Currently, scoring is not possible in OASYS, but has to be done in R. Should be feasible with the Results Manager, which will not be programmed until year 3.

potential?



Must-have. However, the main issue is 1) which of these, and 2) how to make these understandable for the audience. OASYS not allowing scoring right now is a huge issue. Exporting and analyzing in R is not an option for teachers.

Requirement:

We want to be able to open multiple maps at the same time in tabs.

Meta data:

who?

☒



☐




☐




where?

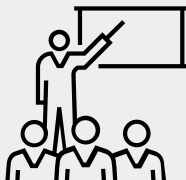
☐




☐



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developers?



Feasible in a stand-alone version. In the "real" OASYS installation, this is neither possible nor wanted.

potential?



Must-have.

Requirement:

We want language functions.

(ideas: check spelling, propose corrections, include a dictionary, functionality to [automatically or by hand] identify synonyms in different languages and analyze them together in collaborative concept mapping)

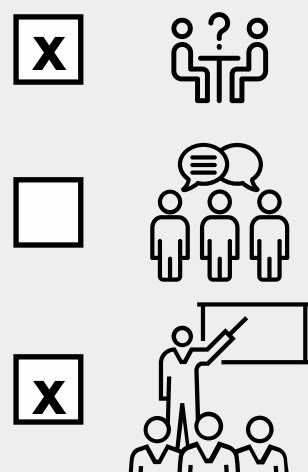
languages: German & French, maybe Luxembourgish

Meta data:

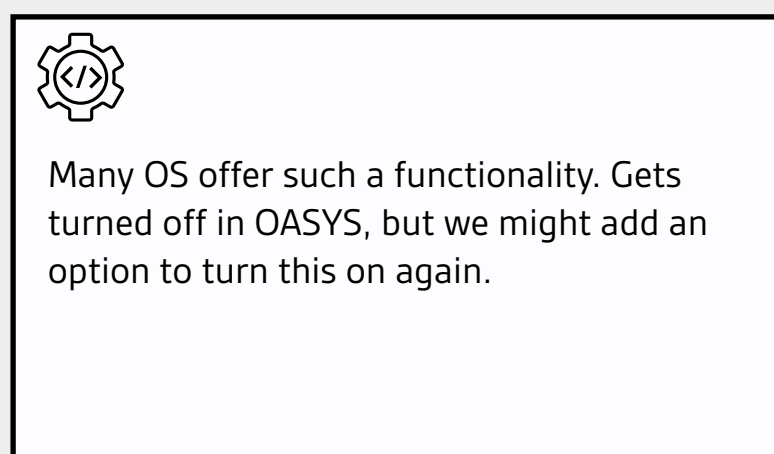
who?



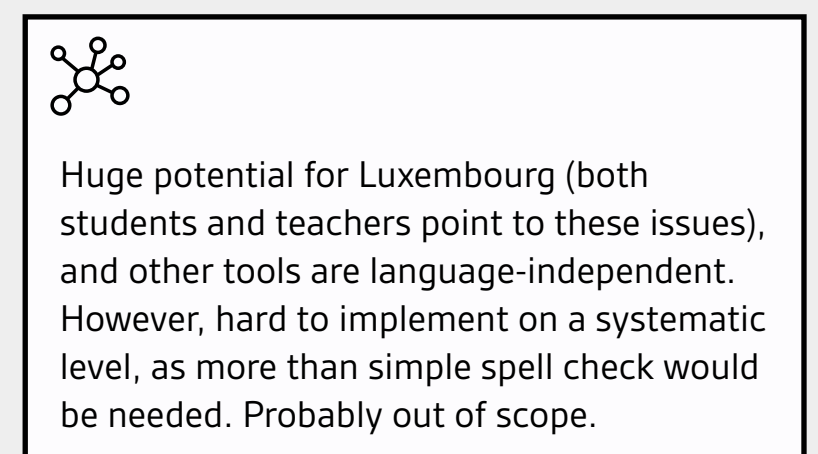
where?



developers?



potential?



Requirement:

We want to decide which elements are allowed in a mapping task.

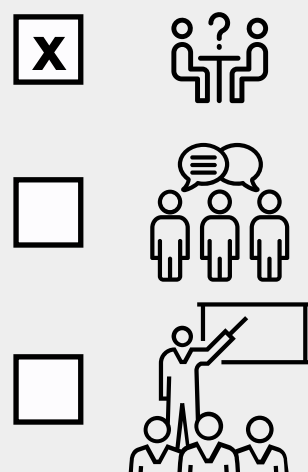
(ideas: select kinds of arrows, forms, allowed concepts, allowed links, with or without own suggestions by students)

Meta data:

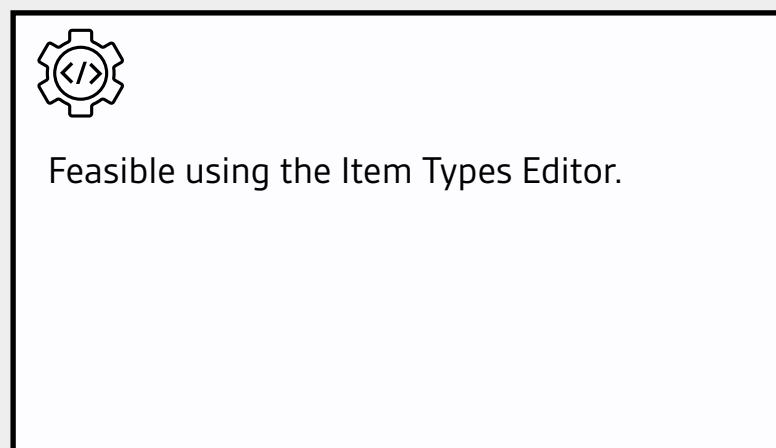
who?



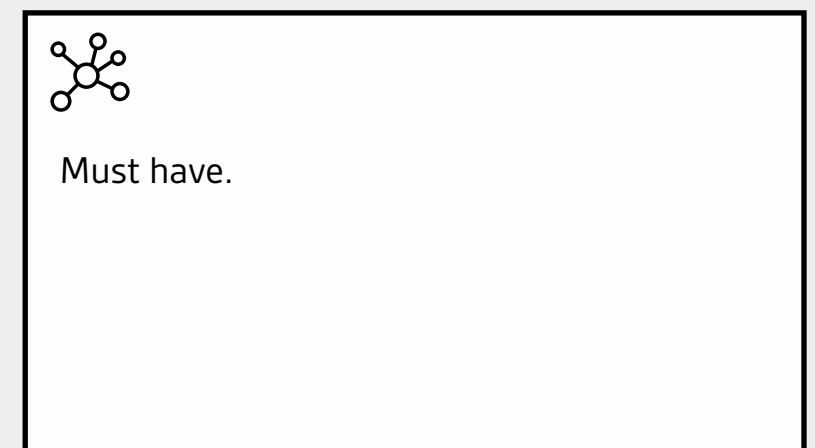
where?



developers?



potential?



Requirement:

We want to record the process of map creation.

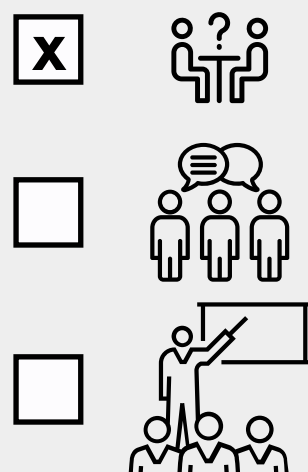
(ideas: log files, video recording, & provide an interface to interpret this data)

Meta data:

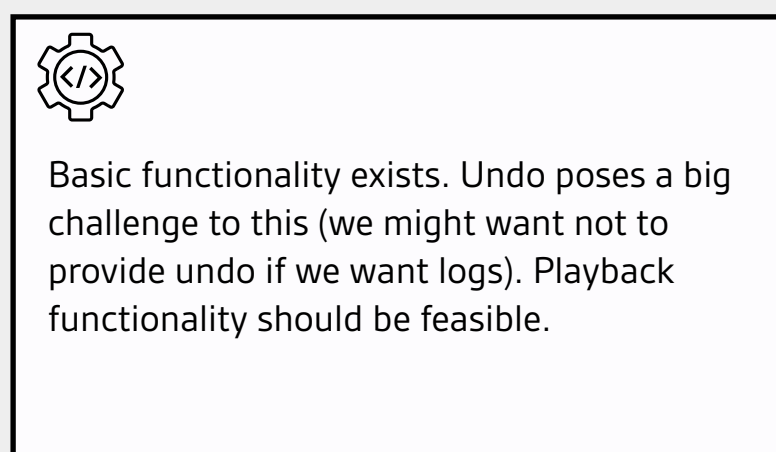
who?



where?



developers?



potential?

