Education Alliance Finland

The Education Alliance Finland Evaluation Process

Access

Our experts in UX and pedagogy are provided with full access of the product and its relevant materials, such as lesson plans or teacher's guide.

EAF Evaluation Software

While our experts use the product, they analyse its pedagogical approach and usability with our evaluation software.

Outcome

The evaluation report is presented to the client during a video call. If the product meets the standards, it will be granted the Education Alliance Finland certificate.

All EAF certified products can be found on www.educationalliancefinland.com

Kialo Edu

Kialo Edu is a tool to teach critical thinking and rational debate.
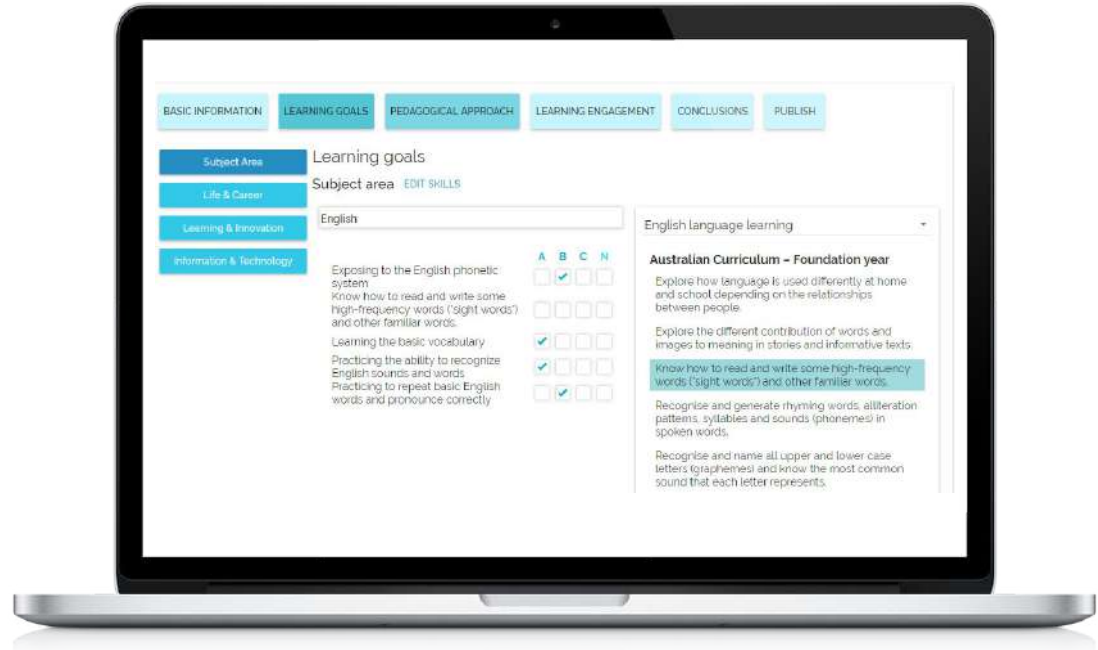
Learning Goals

Matching the learning goals

The evaluator maps the product's learning goals against a specific curriculum/curriculums.

All supported skills are listed and classified as *didactic (A-level)* or *facilitative (B-level)* goals.

The EAF Evaluation Tool has several hundred skills listed from various national curriculums on several subjects (Languages, STEM, Arts etc.)

A

Primary Goals

Content is instructional and didactic: Learning of these skills is constantly present in the core usage.

B
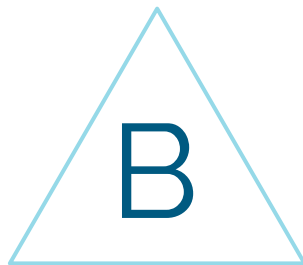
Secondary Goals

Content is partly instructional, partly facilitative: Learning of these skills is present in the core usage, but not essentially and constantly stressed.

N

Non-Existing

Content does not exist: Learning these skills would be a meaningful part of the use of the solution, but they are missing.

Subject Area

Critical writing and debade

English - KS 4 - UK National Curriculum 2013

- Key stage 4 Writing

1. Paying attention to the accuracy and effectiveness of grammar, punctuation and spelling. **B**

2. Make notes, draft and write, including using information provided by others [e.g. writing a letter from key points provided; drawing on and using information from a presentation]. **A**

3. Selecting and organising ideas, facts and key points, and citing evidence, details and quotation effectively and pertinently for support and emphasis. **A**

4. Selecting, and using judiciously, vocabulary, grammar, form, and structural and organisational features, including rhetorical devices, to reflect audience, purpose and context, and using Standard **A**

5. Restructuring their writing, and amending its grammar and vocabulary to improve coherence, consistency, clarity and overall effectiveness. **B**

6. Revise, edit and proof-read through reflecting on whether their draft achieves the intended impact. **N**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

English - KS 4 - UK National Curriculum 2013 - Key Stage 4 Reading

1. Re-reading literature and other writing as a basis for making comparisons. **A**

2. Understand and critically evaluate texts through reading in different ways for different purposes, summarising and synthesising ideas and information, and evaluating their usefulness for particular purposes. **A**

3. Seeking evidence in the text to support a point of view, including justifying inferences with evidence. **A**

4. Identifying and interpreting themes, ideas and information. **A**

5. Make an informed personal response, recognising that other responses to a text are possible and evaluating these. **A**

6. Making critical comparisons, referring to the contexts, themes, characterisation, style and literary quality of texts, and drawing on knowledge and skills from wider reading. **A**

7. Drawing on knowledge of the purpose, audience for and context of the writing, including its social, historical and cultural context and the literary tradition to which it belongs, to inform evaluation. **A**

A = Primary goal: content is _didactic_   **B** = Secondary goal: content is _facilitative_

English - KS 4 - UK National Curriculum 2013 - Key Stage 4 Reading

8. Analysing a writer's choice of vocabulary, form, grammatical and structural features, and evaluating their effectiveness and impact. **[B]**

9. Distinguishing between statements that are supported by evidence and those that are not, and identifying bias and misuse of evidence. **[A]**

10. Exploring aspects of plot, characterisation, events and settings, the relationships between them and their effects. **[B]**

11. Choosing and reading books independently for challenge, interest and enjoyment. **[N]**

12. Read and appreciate the depth and power of the English literary heritage through reading a wide range of high-quality, challenging, classic literature and extended literary non-fiction, such as essays, reviews and journalism. **[N]**

[A] = Primary goal: content is didactic   **[B]** = Secondary goal: content is facilitative

Writing in History/Social Studies, Science, & Technical Subjects - Common Core

State Standard - Grade 11-12

1. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information. **A**

2. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. **A**

3. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence. **A**

4. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. **B**

5. Provide a concluding statement or section that follows from or supports the argument presented. **A**

A = Primary goal: content is _didactic_

B = Secondary goal: content is _facilitative_

Writing in History/Social Studies, Science, & Technical Subjects - Common Core State Standard - Grade 11-12

6. Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers. **A**

7. Draw evidence from informational texts to support analysis, reflection, and research. **A**

8. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. **A**

9. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. **A**

10. Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic). **A**

11. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. **A**

A = Primary goal: content is _didactic_   **B** = Secondary goal: content is _facilitative_

Writing in History/Social Studies, Science, & Technical Subjects - Common Core State Standard - Grade 11-12

12. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. **A**

13. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. **B**

14. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation. **B**

15. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. **A**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

Writing in History/Social Studies, Science, & Technical Subjects - Common Core State Standard - Grade 11-12

16. Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes. **A**

17. Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. **A**

18. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. **A**

A = Primary goal: content is _didactic_   **B** = Secondary goal: content is _facilitative_

Life & Career

Work life skills and Entrepreneurship / Wellbeing and Sustainable Development / Social Skills / Cross Cultural Skills and Global Awareness / Cross-Disciplinary Thinking /

Life & Career skills

Wellbeing and Sustainable Development

1. Practicing to recognize and express feelings .... **A**

2. Learning to face failures and disappointments .... **B**

3. Encouraging the growth of positive self-image .... **A**

4. Supporting the growth of environmental awareness .... **B**

5. Recognizing habits that are good for sustainable living .... **B**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

Life & Career skills

Work life skills and Entrepreneurship

1. Realizing the connection between subjects learned in free time and their impact to skills needed at worklife .... **A**

2. Connecting subjects learned at school to skills needed at working life .... **A**

3. Practicing decision making .... **A**

4. Learning to plan and organize work processes .... **A**

5. Practicing time management .... **B**

6. Practicing versatile ways of working .... **A**

7. Learning consumer knowledge and smart economics .... **B**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

Life & Career skills

Cross Cultural Skills and Global Awareness

1. Encouraging to build new information and visions .... **A**

2. Learning to face respectfully people and follow the good manners .... **A**

3. Learning about cultural aspects and to respect different cultures .... **B**

4. Getting familiar with different cultures .... **B**

5. Learning to understand people, surroundings and phenomenons around us .... **A**

6. Supporting student to build their own linguistic and cultural identity .... **A**

7. Learning about different languages .... **B**

8. Learning to know and respect human rights .... **B**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

Life & Career skills

Social Skills

1. Practicing to give, get and reflect feedback .... **A**

2. Practicing to express own thoughts and feelings .... **A**

3. Practicing to argument clearly own opinions and reasonings .... **A**

4. Practicing to work with others .... **A**

5. Enabling the growth of positive self-image .... **A**

6. Learning to understand the meaning of rules, contracts and trust .... **A**

7. Practicing communication through different channels .... **A**

8. Learning decision-making, influencing and accountability .... **A**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

Social Skills

9. Learning to listen other people's opinions .... **A**

10. Practicing to use foreign language as a communication tool .... **B**

A = Primary goal: content is didactic

B = Secondary goal: content is facilitative

Cross-Disciplinary Thinking

1. Encouraging to build new information and visions .... **A**

2. Learning to combine information to find new innovations .... **A**

3. Practicing to notice links between subjects learned .... **A**

4. Learning to build information on top of previously learned .... **A**

5. Practicing to notice causal connections .... **A**

A = Primary goal: content is <u>didactic</u>   **B** = Secondary goal: content is <u>facilitative</u>

Learning & Innovation

Cognitive and thinking skills / Learning to Learn / Creativity and Innovation / Critical Thinking & Problem Solving /

Learning & Innovation

Cognitive and thinking skills

1. Learning to notice causal connections .... **A**

2. Practicing to observe spoken and written language .... **A**

3. Practicing categorization and classification .... **A**

4. Practicing memorizing skills .... **B**

5. Practicing letters, alphabets and written language .... **B**

6. Practising visual recognition .... **N**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

Learning & Innovation

Learning to Learn

1. Learning to find the joy of learning and new challenges .... **A**

2. Practicing to evaluate one's own learning .... **B**

3. Practicing to set one's own learning goals .... **B**

4. Practicing to take responsibility of one's own learning .... **A**

5. Practicing persistent working .... **B**

6. Practicing to find ways of working that are best for oneself .... **A**

A = Primary goal: content is <u>didactic</u>   **B** = Secondary goal: content is <u>facilitative</u>

Learning & Innovation

Creativity and Innovation

1. Practicing to use imagination and to be innovative .... **A**

2. Encouraging students to be innovative and express new ideas .... **A**

3. Practicing to improvise .... **A**

4. Practicing creative thinking .... **A**

5. Practicing to use imagination and to be innovative .... **A**

6. Creating requirements for creative thinking .... **A**

7. Practicing to use arts as a way to express .... **N**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

Learning & Innovation

Critical Thinking & Problem Solving

1. Practicing to notice causal connections .... **A**

2. Learning to recognise and evaluate arguments and their reasonings .... **A**

3. Practicing to look things from different perspectives .... **A**

4. Practicing to create questions and make justifiable arguments based on observations .... **A**

5. Learning to find solutions in social conflicts .... **A**

6. Developing problem solving skills .... **A**

7. Practicing strategic thinking .... **A**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

Information & Technology

Multimodal Literacy / Media and Information Literacy / ICT Literacy /

ICT Literacy - Primary skills

ICT Literacy

1. Using technology as a part of explorative and creative process .... **A**

2. Building common knowledge of technological solutions and their meaning in everyday life .... **B**

3. Using technology as a part of explorative process .... **A**

4. Using technology to express one's emotions and experiences .... **A**

5. Using technology for interaction and collaboration .... **A**

6. Understanding and practicing safe and responsible uses of technology .... **A**

7. Using technological resources for finding and applying information .... **A**

8. Using technology for interaction and collaboration (also internationally) .... **A**

9. Using technology resources for problem solving .... **A**

A = Primary goal: content is didactic   **B** = Secondary goal: content is facilitative

ICT Literacy - Primary skills

Media and Information Literacy

1. Familiarizing with the influences of media and understanding its affordances .... **A**

2. Learning to plan and design own written content and textual representations .... **A**

3. Learning to view and consider media and advertising critically .... **B**

4. Practicing to find, evaluate and share information .... **A**

5. Practicing to use information independently and interactively .... **A**

A = Primary goal: content is _didactic_   **B** = Secondary goal: content is _facilitative_

ICT Literacy - Primary skills

Multimodal Literacy

1. Learning to understand and interpret diverse types of texts, from vernacular to academic .... **A**

2. Learning to understand and interpret diverse types of texts .... **A**

3. Understanding and interpreting of matrices and diagrams .... **B**

4. Using technology as a part of explorative and creative process .... **A**

5. Practicing logical reasoning to understand and interpret information in different forms .... **A**

6. Learning to acquire, modify and produce information in different forms .... **A**

A = Primary goal: content is didactic

B = Secondary goal: content is facilitative

Pedagogical Approach

Assessing the pedagogy

The evaluator answers a set of statements to assess the product's pedagogical approach.

The answers to the questions result to a numeric score on each parameter. The parameters are shown as contrary pair sliders.

The assessment is divided into four parameters:

1. **Passive – Active**
2. **Rehearse – Construct**
3. **Linear – Non-linear**
4. **Individual – Collaborative**

The set of questions and definitions, have been developed by researchers from the Helsinki University.

Criterion definition

Passive / Active

Passive: Learner in an observant role

Active: Learning by doing

Individual / Collaborative

Individual: Learner is learning by her- or himself

Collaborative: Requires collaboration with other learners

Linear / Non-linear

Linear: Proceeding linearly through repetitive tasks

Non-linear: Supports free exploration and finding solutions in variable ways.

Rehearse / Construct

Rehearse: Practicing earlierly learned

Construct: Learning and constructing new concepts

How to read the contrary pair analysis?

Individual — 76 — Collaborative

The magnifier tells where the product currently positions the learner, in the pedagogical dimension.

The pin shows where the product should position the learner according to the evaluators.

The Rating Scale

-80
Fair
There are crucial issues with the pedagogical approach. Improvements are necessary in order to achieve high educational quality.

80+
Good
The pedagogical approach is valid. However, many improvements could be made in order to improve this aspect of learning experience.

90+
Excellent
The pedagogical approach is innovative and meaningful. Some improvements could be made in order to improve this aspect of learning experience.

95+
Outstanding
Product is exceptionally innovative and provides high educational value. The content is delivered in an extremely meaningful and engaging way.

Passive 〔⸻⸻⸻⸻ 91 ⸻⸻⸻〕 Active

Strengths: The tool offers an excellent way to engage with others. Although when writing students often work independently, fostering critical thinking also requires group discussions where the arguments can be tested and countered by real people. By employing this learning method, students are inspired to keep pushing forward. There are multiple ways how the teacher can use the solution in classroom / teaching, and features like tasks give more structure and goals for the conversation.

"I really liked the data of other arguments using the same vocabulary. Also the links on the subject in question came in handy."

The "Dark Ages" were not all that dark.

The Dark Ages were a time of chaos and decline.

Possible duplicate claims

Dark-Age societies were dominated by uncivilized barbarians.

Many countries saw new artistic movements emerge during the Dark Ages that were just as intricate as unique as the art which preceded them.
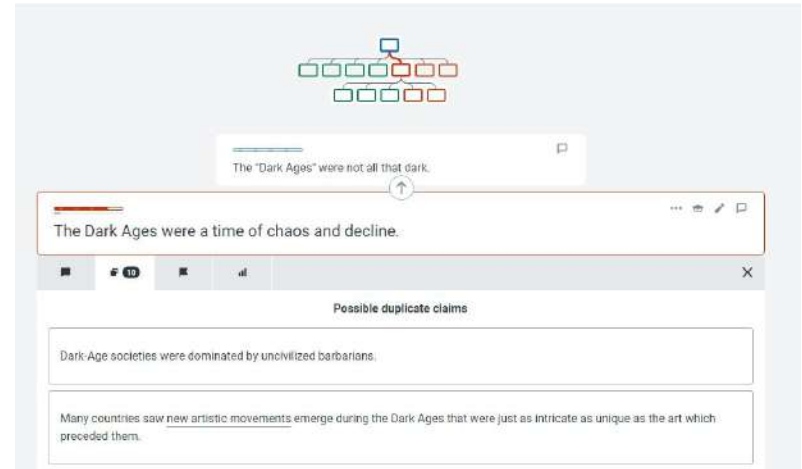
Passive - Active: 91/100 = Excellent

Passive 〔══════════ ⊙91 ═══📍══════〕 Active

Development areas: If students provide the same response as their peers, it creates a problem as some students can copy a previous answer. In such a scenario, some students may go unnoticed and miss out on learning new concepts. The planned Small Group mode will make the discussions easier to manage.

There could be more prominent way to communicate to the student, how many responses he/she has made, and perhaps an easier way to filter a conversation to see one's own arguments, also across different conversations. This would make the student's own effort more visible for them. The planned grading tools give many of these tools for the teacher, and some of this could be adapted for the learners as well.

Tasks Details

Andrea   1/5

○ Write 2 claims below others' claims
0/2 Claims

○ Vote on 3 claims
1/3 Claims ▼

Rehearse - Construct: 94/100 = Excellent
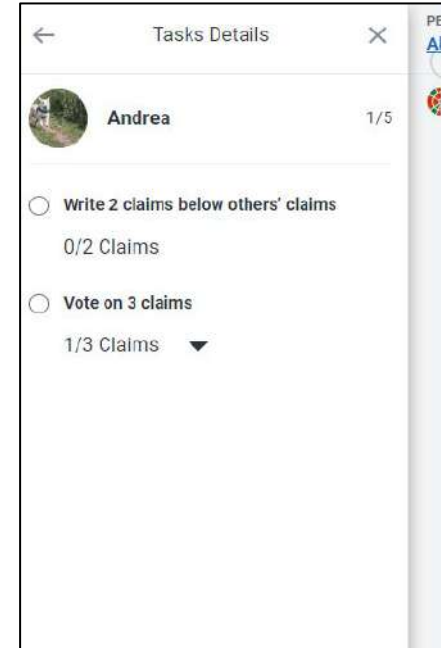
Rehearse ————————————— 94 ———————— Construct

Strengths: Debate and argument forming is an effective ways for internalizing complex topics, and using a structured platform for it can help forming a comprehensive picture of all views. There are several motivating features in Kialo Edu, such as voting, thanking author etc. It guides the learner in evaluating arguments and their reasoning in subtle ways, such as claim for review, showing duplicates etc. This is a great example of how technology can be used to facilitate thinking.

Kialo also offers lesson plans and guide documents for teachers. The lesson plans give guidance on using Kialo for planning and writing longer texts and facilitating usage in class situations.

Rehearse - Construct: 94/100 = Excellent

Rehearse ———————— 94 ———————— Construct

Development areas: Kialo Edu is very focused on teaching particular sets of skills, and although it does it well, the use case in classroom can be fairly limited.

 "While debating is a useful learning method for students, it is important to note that it is only one of many available methods of learning. Teachers prefer to have a variety of options for their students, and may not be inclined to choose a tool that only provides one activity. The key to a student-centered approach is enabling them to create their own work independently. This is facilitated through open-ended activities that enable students to continue learning beyond the initial guidance."

The platform also doesn't have features that might especially support beginner writers; how to form an argument, how to recognize the main points etc. The planned features, such as the tutorial mode, will answer this need to some extent.

The lesson plans are in a Help Center, where they are not immediately discoverable. The teacher could be pointed there, or the lesson plans could be promoted in Topics library.

Linear - Non-linear: 93/100 = Excellent

Strengths: Since this approach to learning is centered around students, the learning outcomes may vary from one student to another. The non-linear form of learning is clear as the tool is designed with the learner activities at the forefront. The example discussion templates are very open-ended, which encourages further exploration and enables students to acquire learning outcomes that they find beneficial.

Discussion Topology

Statistics
(Click the numbers for details.)

Participants	Claims	Contributions	Votes
Ms. Smith	73	84	0
Andrea	1	1	3

Linear - Non-linear: 93/100 = Excellent
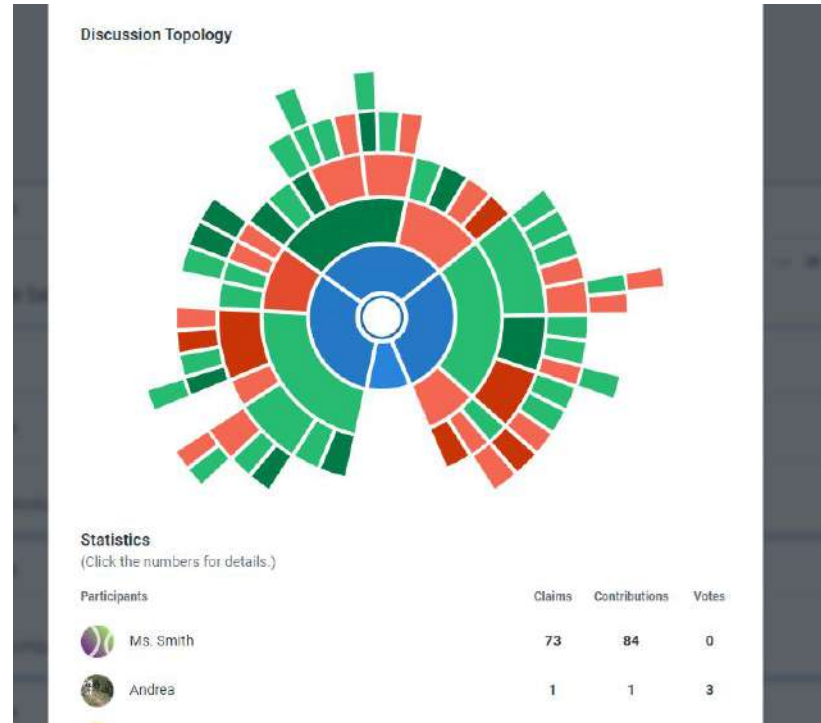
Linear ———————————————●———————————— Non-linear
                                    93

Development areas: The tool's scope is narrow, resulting in limited learning objectives. It works incredibly well for the goal it tries to fill, but it might need more flexibility and adjustments to fit especially the lower educational levels

"*I would include aids in writing and make sure that voice to speech can be used for participants that can not write. I managed to use google's microphone, but needed to copy-paste the comment to add it. It would be fantastic if you could have the speech to text functions in your platform. As mentioned earlier I would introduce some visual aids to the messages. Writing skills seem to be in Decline among the younger Generations in many countries. Therefore, I would introduce some basic spelling aids and also a minimum requirement for the message word count. Otherwise our students only send us three word messages that do not promote the skills that they need to acquire.*"
The sentence starter feature will help the writers get started, and most browsers include spelling aids that work on Kialo.

"*I would include some spelling tips and writing guidelines in this solution. Secondly, some visual aids to explain one's views would be nice. Perhaps a visual design tool or a chance to add images could be introduced.*"

Individual - Collaborative: 93/100 = Excellent

Individual ————————— 93 🔍 📍 ————— Collaborative

Strengths: Kialo provides an open learning community to share information, thoughts, and experiences, and structured debades promotes sharing of learning outcomes. Although the students are writing individually, the full experience is highly collaborative. The planned new features, such as Small Group Mode will make the argument forming even more a group effort and make Kialo Edu suitable for even more learning situations.

"*Learning through social interaction is crucial for developing not only academic outcomes but also soft skills and overall well-being. This is a vital aspect that should not be overlooked in any modern educational approach. Unfortunately, many learning tools fail to recognize the significance of this fresh perspective on learning.*"

Individual ⟨93⟩ Collaborative

Development areas: Currently many of the features encourage the learners to "compete" against other users. Leaderboard and voting can be very motivating, but there could be more softer and collaborative ways of interaction.

"I would work more on the goal setting and feedback features of the product. There should be a specific Feedback-tab in My Kialo where a student can check their performance. Secondly, the product should include some guidelines for respectful online communication."

Statistics
(Click the numbers for details.)

Participants	Claims	Contributions	Votes
homo_admirans	9	13	0
maurelle	6	17	5
alpo	6	15	5
Sylvi	6	12	5
Kialolaik	6	7	5
Andrea	3	3	0

Learning Engagement

The Six Aspects of Learning Engagement

Autonomy

Feeling that the user's actions in the product are based on their own decisions rather than feeling there is external pressure to choose a certain action.

Competence

The user can feel capable and effective in their actions rather than feeling incompetent or ineffective.

Relatedness

Feeling that in the product there is meaningful contact with people who care about you rather than feeling lonely and uncared for. You can also feel connection with fictional characters and events in the product.

Respect

Feeling that the product takes the user into account as a capable and desired actor rather than feeling that the user's opinions and experiences are neglected.

Stimulation

Feeling that the product offers plenty of enjoyment and pleasure rather than feeling bored and understimulated by the product.

Safety

Feeling that the product is a safe environment for having fun and trying out things rather than feeling uncertain of the consequences or threatened by other users.

The Rating Scale

1

Not Supported

There are issues with the user engagement in this area.

2-3

Supported

The product takes into account this aspect of user engagement. Some improvements could be made in order to improve the support.

4-5

Well supported

There are several well executed features which support this aspect of user engagement.

Autonomy   Score: 3.61/5 = Supported

The users actions in the product are based on their own decisions rather than feeling external pressure to choose a certain action.

Main strengths	Score
1. It is possible to use creativity and express yourself when using the product.	3.7
2. It is possible to make choices, and the different choices have clearly different and meaningful outcomes.	4

At the beginning of their learning journey, students will find this tool to be a source of motivation as it provides a unique approach to learning. Kialo Edu encourages individuals to take part on discussion, even if they are shy and not familiar with speaking in the group.

Autonomy Score: 3.61/5 = Supported

The users actions in the product are based on their own decisions rather than feeling external pressure to choose a certain action.

Main development areas   **Score**

1.   The user can create their own goals for the use. **2**

If a tool only caters to a single aspect, students are likely to lose interest in it. Lack of variety often leads to boredom among students while using tools. Potentially Kialo could support more use cases; Argument tree would be a great tool for planning your essays, or for brainstorming topics in small groups. However, a lot of these kind of use cases might need more instructions and a bit of flexibility.

Competence   Score: 4.25/5 = Well supported

Feeling that you are very capable and effective in your actions rather than feeling incompetent or ineffective

Main strengths	Score
1. The first time experience is encouraging and it is easy to learn to use the product.	**4.7**
2. It is possible to feel successful and proud of myself when I am using the product.	**4.3**
3. The product gives you enough information to use it efficiently.	**4.7**

"It was a breeze to navigate and even though it's advertised for high schools, I believe it could be beneficial for elementary schools too. Since the subjects are applicable, students may feel inspired and accomplished when finishing tasks that relate to their lives and aspirations."

Feeling that you are very capable and effective in your actions rather than feeling incompetent or ineffective

Main development areas	Score
1. The product rewards the user in a meaningful way and according to the challenge	**3**

There could be more ways for both personal and automated feedback, statistics and rewards.
"It would be cool to get some badges for posts and replies. This time I got zero feedback and felt pretty much like an unwanted outcast."

"It could be exhausting for teachers to write feedback for students on every tool they use every week. One alternative could be to leave voice messages for them instead of written comments. Additionally, giving marks may not necessarily make the tool student-focused anymore. It would be beneficial to devise a more significant method of rewarding students."

Relatedness   Score: 3.89/5 = Supported

The product supports meaningful contact with people who care about your actions rather than feeling that the contact is one-sided or meaningless. The user can feel connection with fictional characters and events in the product.

Main strengths   **Score**

1. The product supports communication with other people and there are good reasons to **4.7**
    communicate

2. The visuals and characters in the product are suitable for targeted users. **4**

3. The product supports social interaction, such as multiplay or sharing of content with other people. . .   **4.3**

The whole purpose of Kialo is to create a learning community and make students learn from each other. The design and visuals are professional, modern and pleasant looking.

Relatedness   Score: 3.89/5 = Supported

The product supports meaningful contact with people who care about your actions rather than feeling that the contact is one-sided or meaningless. The user can feel connection with fictional characters and events in the product.

Main development areas   **Score**

1.   The product provides examples or motivation to learn the skill it tries to teach. **3**

There could be more support for beginner writers. The support for educators could be also enhanced, even if the basic settings and navigation is very easy to grasp.

"The product has many tools, and its instructional guides are quite lengthy due to its specificity. As an educator, I would find it more convenient to have instructional videos available, since setting up another tool can be time-consuming."

Respect   Score: 4.2/5 = Supported

Feeling that the product takes the user into account as a capable and desired actor rather than feeling that the user's opinions and experiences are neglected.

Main strengths	Score
1. The product doesn't make assumptions on player's age, gender, race or origin.	4.2
2. The product doesn't have bugs which cause errors or crashing.	5

Kialo Edu aims to cater to everyone, and its versatility and inclusiveness is evident. Some support tools could be given to students in lower educational levels, but for the current target group, the tool fits really well and keeps the focus on writing.

Feeling that you get plenty of enjoyment and pleasure rather than feeling bored and understimulated by the product.

Main strengths	Score
1. The product's graphics, sounds and other elements support the narrative and user experience in a.. meaningful way and are pleasant.	4

Being an open-ended tool, it is always possible to challenge the students, making it a great way to learn.
"The visual layout of the product is rather academic. Perhaps the youngsters in high schools want a slightly more colorful and visually versatile experience. Images are an important part of learning History, Philosophy, Arts and Language."

Stimulation   Score: 3.59/5 = Supported

Feeling that you get plenty of enjoyment and pleasure rather than feeling bored and understimulated by the product.

Main development areas   **Score**

1.   The user doesn't unnecessarily need to repeat things which they have already learned **2.7**

If the discussion branches a lot, it can be difficult to navigate, and the students might be tempted to post the same argument to several branches. There could be more tools to cater to various use cases - only doing debate has value, but the tool might not be applied as much as it potentially could.

Feeling that the product is a safe environment for having fun and trying out things rather than feeling uncertain of the consequences or threatened by other users

Main strengths	Score
1. If the user shares content - their work, their comments or anything else - it is always clear, who has access to the shared content.	5
2. There is a way to report and possibly block misbehaving users.	4.7

The product's ability to block students who misbehave is evidence of its foresight in considering different scenarios. There's also ways for flagging arguments, which are very handy.

Education Alliance Finland

Results

Kialo Edu
High Educational Quality Aspects

Education Alliance Finland

1. Kialo Edu offers a structured and flexible platform for argumentation and debate.

2. The platform is easy to use, easy to moderate, and offers the teacher a good toolkit for setting up discussions and tasks.

3. Kialo can give a voice to everyone, and the arguments can be viewed as a graph.

Pedagogical Approach **93 %**

Learning Engagement **4.1/5**

According to Education Alliance Finland evaluation, Kialo Edu represents high educational quality and is proven to promote learning efficiently.

Background

*Expert Evaluation of **what** the solution teaches and **how** it teaches?*

Education Alliance Finland

Education Alliance Finland conducts impact evaluations based on global quality standard for learning solutions
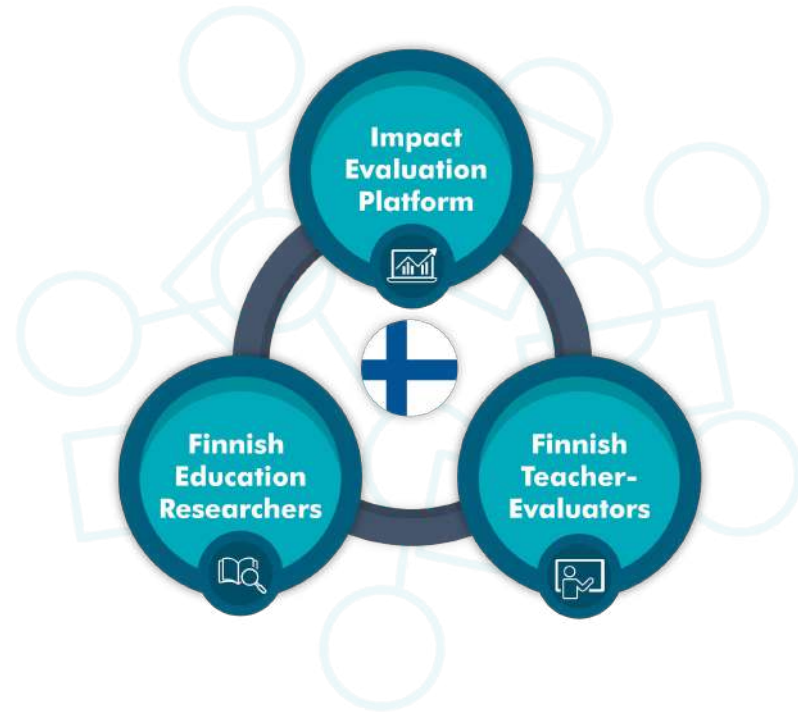
Expert Evaluation and Rating

The analysis of how the product supports learning of different skills is done by using a contrary pair criterion. The evaluator uses contrary pairs to diagnose skill-specifically the pedagogical approach which the product represents. The diagnose is done by using slider between contrary pairs, setting the slider in a position that describes the product's approach. Evaluator uses the same slider to describe the best possible approach and gives a rate (0-100) on how adequate approach the product has.

All diagnoses and ratings are done by two expert-evaluators separately. After all skills are diagnosed through the criterion, evaluators discuss and form a concluding diagnose of two separate evaluations.

The rating points out the strengths and development areas, mirroring them with the needs of education field and product development possibilities. After pointing out the development areas, the analysis gathers suggestions on how to improve the product.

Outcomes

Q   Defining **what** and **how** the product teaches

Q   Analysis of features which **engage** the learners

Q   Pointing out the strengths and development areas

Q   Giving validation for building the marketing message

Pedagogical Model and Learner Perception

In the first phase of the analysis evaluators are forming product related statements to define a variation of skill sets that the use of the product supports. The base of the statements is formed upon definitions of 21st century skills, Finnish pedagogics and existing research evidence related to the product. The reason for using the mentioned influencers is that they represent the needs of the education field globally.

In the second phase the same influencers are used to develop the criterion for evaluation how the product supports learning of different detected skills. Finnish new curriculum represents a learner perception based on most advanced understanding of efficient pedagogical approach and therefore it can set the highest quality standards for education tools.

Regarding the role of the student, we characterize the learning solution as promoting learning that is situated somewhere on the scale between *passive* and *active*. As key components determining the characteristics of the solution on this scale we use *accountability, behavioural engagement and emotional engagement.*

Agency	Behavioural engagement	Emotional engagement
Autonomy	*Interactivity*	*Activating motivation*
Self-regulation	*Engagement*	*Sustaining motivation*
Intentionality	*Scaffolding*	*Feed forward*

Passive   **Active**

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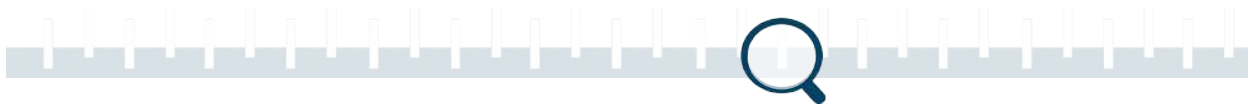
Pedagogical approach - Rehearse / Construct

Regarding the learning activities, we characterize the learning solution as promoting learning that is situated somewhere on the scale between rehearse and construct. As key components determining the characteristics of the solution on this scale we use sparking of interest, building of knowledge and reflection of learned.

Interest	Knowledge building	Reflection
Activating interest	*Defining goals*	*Reflection*
Mapping prior knowledge	*Applying existing knowledge (adaptation/ assimilation)*	*Decision-making*
Customisation	*Knowledge creation*	*Difficulty optimisation*

Rehearse **Construct**

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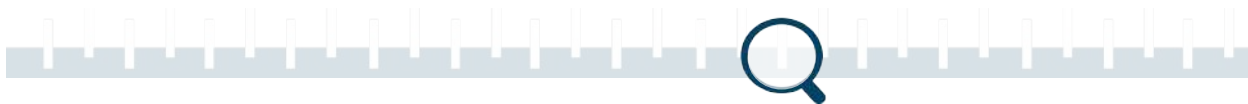
Pedagogical approach - Individual / Collaborative

Regarding the learning activities, we characterize the learning solution as promoting learning that is situated somewhere on the scale between individual and collaborative. As key components determining the characteristics of the solution on this scale we use interaction, responsibility and regulation.

Interaction	Responsibility	Regulation
Interaction	*Accountability*	*Self / co-regulation*
Fostering collaboration	*Peer support*	*Personal / shared learning goals*
Content sharing	*Information sharing*	*Independency / co-dependency*

Individual

Collaborative

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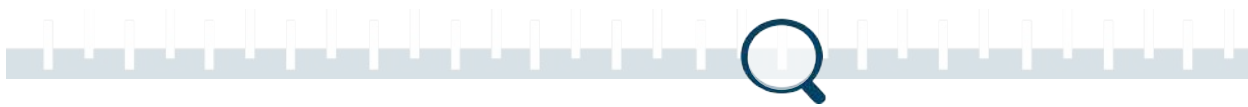
Regarding the learning process, we characterize the learning solution as promoting learning that is situated somewhere on the scale between linear and non-linear. As key components determining the characteristics of the solution on this scale we use procession and predictability.

Process	Predictability
User progression	*Predictability of outcomes*
UX optimisation	*UX limitations*

Linear   **Non-linear**

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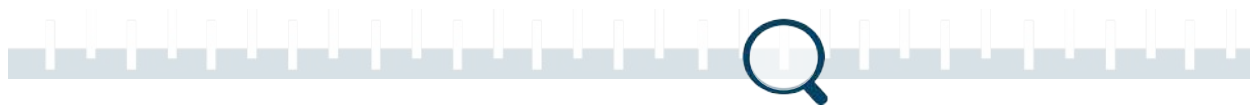
Assessing User Happiness

The user experience evaluation is done from the perspective of the user happiness. The evaluation assesses, how fun and engaging an product is to use, and it is suitable for entertainment games, learning games and utility apps,.

The evaluation focuses on things the users are able to do in the product, and how these features make the users feel. It takes into account the general usability of the products, but looks behind issues which are not essential for the experience. Therefore this type of evaluation is also suitable for proof of concept -state prototypes and ideas.

The evaluation report serves as a tool for the design and development team. It shows what are the features that support the user happiness the best, and how they do it. It will also point out things that hinder the happiness, and ways the experience could be improved.

Sources: The aspects of player happiness are from Hassenzalh, Marc et all: Designing Moments of Meaning and Pleasure. Experience Design and Happiness. International Journal of Design Vol. 7 No. 3 2013

Autonomy	*The user's actions in the product are based on their own decisions rather than feeling there is external pressure to choose a certain action.*
1. The user can create their own goals for the use.	4. The product sets limitations for using it when and where I want to, and the limitations feel unnecessary or annoying.
2. The product motivates the use well	5. It is possible to make choices, and the different choices have clearly different and meaningful outcomes.
3. It is easy to understand, what is the goal in using the product.	6. It is possible to use creativity and express yourself when using the product.

Sources: The heuristics are adapted from the following sources:
Korhonen, Hannu & M. I. Koivisto, Elina. (2006). Playability heuristics for mobile games.
Inostroza, Rodolfo et all (2012). Usability Heuristics for Touchscreen-based Mobile Devices.
Nielsen, Jacob. (1994a). Enhancing the explanatory power of usability heuristics.

Competence

Feeling that you are very capable and effective in your actions rather than feeling incompetent or ineffective

1. The product rewards the user in a meaningful way and according to the challenge	5. Progression on the product depends on succeeding on things relevant for learning.
2. The product gives you enough information to use it efficiently.	6. The first time experience is encouraging and it is easy to learn to use the product
3. Navigation in the product is easy and intuitive.	7. It is possible to feel successful and proud of myself when I am using the product.
4.The challenges and tasks in the product feel optimal for the targeted users	Experienced and advanced users can find more challenge in the product.

Sources: The heuristics are adapted from the following sources:
Korhonen, Hannu & M. I. Koivisto, Elina. (2006). Playability heuristics for mobile games.
Inostroza, Rodolfo et all (2012). Usability Heuristics for Touchscreen-based Mobile Devices.
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Relatedness *In the product there is meaningful contact with people who care about your actions rather than feeling that the contact is one-sided or meaningless. The user can feel connection with fictional characters and events in the product.*

1. The story or fictional world present in the product motivates learning	4. The product supports social interaction, such as multiplay or sharing of content with other people
2. The product uses language which makes you feel welcome and cared for.	5. The product provides examples or motivation to learn the skill it tries to teach.
3. The visuals and characters in the product are suitable for targeted users.	6. The product supports communication with other people and there is are good reasons to communicate

Sources: The heuristics are adapted from the following sources:
Korhonen, Hannu & M. I. Koivisto, Elina. (2006). Playability heuristics for mobile games.
Inostroza, Rodolfo et all (2012). Usability Heuristics for Touchscreen-based Mobile Devices.
Nielsen, Jacob. (1994a). Enhancing the explanatory power of usability heuristics.

Respect	*Feeling that you are very capable and effective in your actions rather than feeling incompetent or ineffective*
1. The product gives clear feedback on all your actions	4. The product is suitable for both inexperienced and experienced users. Players can eg. skip tutorials or choose wanted difficulty levels
2. The product doesn't make assumptions on player's age, gender, race or origin.	5. The product doesn't have bugs which cause errors or crashing.
3. The product doesn't include discriminative narrative or enforce unnecessary stereotypes	

Sources: The heuristics are adapted from the following sources:
Korhonen, Hannu & M. I. Koivisto, Elina. (2006). Playability heuristics for mobile games.
Inostroza, Rodolfo et all (2012). Usability Heuristics for Touchscreen-based Mobile Devices.
Nielsen, Jacob. (1994a). Enhancing the explanatory power of usability heuristics.

Stimulation	*Feeling that you get plenty of enjoyment and pleasure rather than feeling bored and understimulated by the product.*
1. The product encourages exploring it further	4. The user doesn't unnecessarily need to repeat things which they have already learned
2. The product's challenge level is optimal for the targeted users, or it can be chosen	5. The product's graphics, sounds and other elements support the narrative and user experience in a meaningful way and are pleasant.

Sources: The heuristics are adapted from the following sources:
Korhonen, Hannu & M. I. Koivisto, Elina. (2006). Playability heuristics for mobile games.
Inostroza, Rodolfo et all (2012). Usability Heuristics for Touchscreen-based Mobile Devices.
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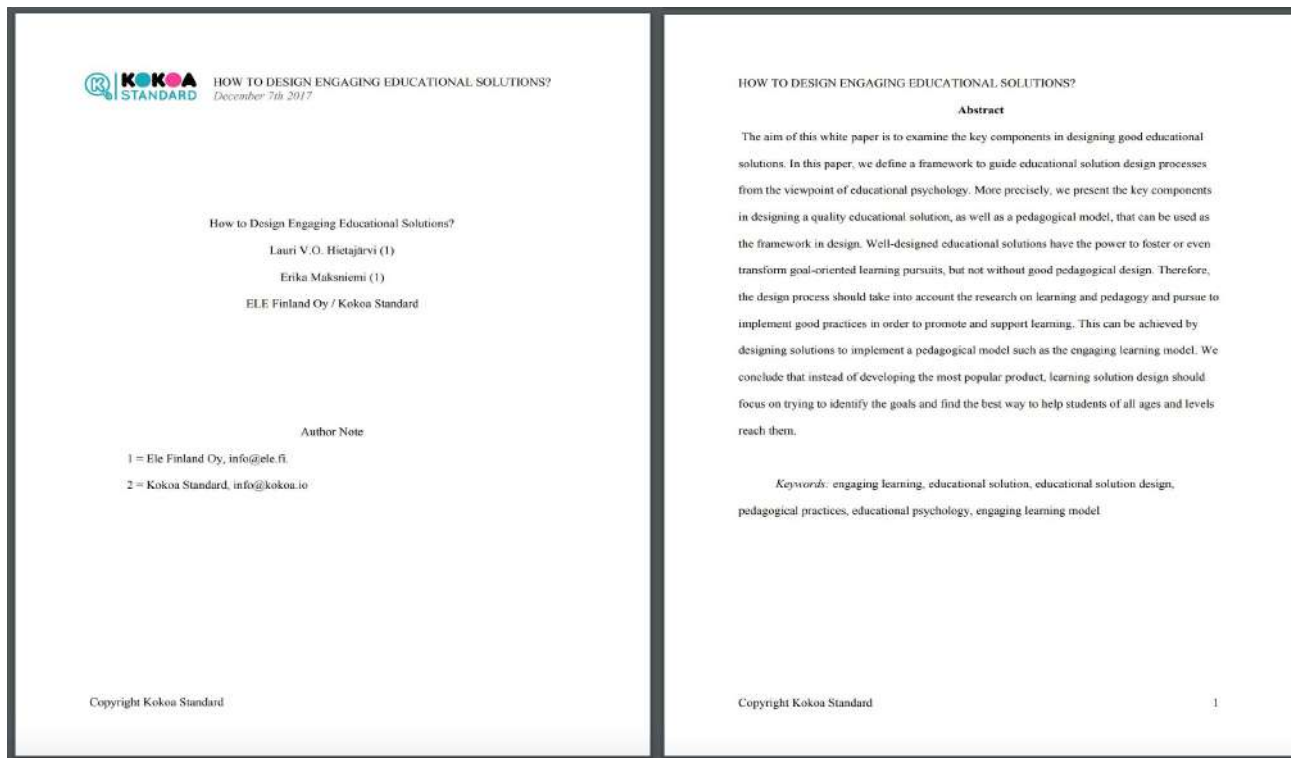| Safety	*Feeling that the product is a safe environment for having fun and trying out things rather than feeling uncertain of the consequences or threatened by other users.*
1. Making errors is beneficial. Everytime you make an error, you learn something from it	4. The user does not lose any hard-won rewards or results if they do something wrong.
2. There is a way to report and possibly block misbehaving users.	5. f the user shares content - their work, their comments or anything else - it is always clear, who has access to the shared content.
3. The product doesn't include content or advertising which would be harmful for the targeted users	6. The user cannot make irreversible errors. Points that lead to restarting the use or re-doing things without a considerable effort should not be possible

Sources: The heuristics are adapted from the following sources:
Korhonen, Hannu & M. I. Koivisto, Elina. (2006). Playability heuristics for mobile games.
Inostroza, Rodolfo et all (2012). Usability Heuristics for Touchscreen-based Mobile Devices.
Nielsen, Jacob. (1994a). Enhancing the explanatory power of usability heuristics.

The white paper article describes the theoretical background of the evaluation.

KOKOA STANDARD

HOW TO DESIGN ENGAGING EDUCATIONAL SOLUTIONS?
December 7th 2017

How to Design Engaging Educational Solutions?

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HOW TO DESIGN ENGAGING EDUCATIONAL SOLUTIONS?

Abstract

The aim of this white paper is to examine the key components in designing good educational solutions. In this paper, we define a framework to guide educational solution design processes from the viewpoint of educational psychology. More precisely, we present the key components in designing a quality educational solution, as well as a pedagogical model, that can be used as the framework in design. Well-designed educational solutions have the power to foster or even transform goal-oriented learning pursuits, but not without good pedagogical design. Therefore, the design process should take into account the research on learning and pedagogy and pursue to implement good practices in order to promote and support learning. This can be achieved by designing solutions to implement a pedagogical model such as the engaging learning model. We conclude that instead of developing the most popular product, learning solution design should focus on trying to identify the goals and find the best way to help students of all ages and levels reach them.

Keywords: engaging learning, educational solution, educational solution design, pedagogical practices, educational psychology, engaging learning model

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