Example evaluation report

KOKOA EDUCATION STANDARD - FINLAND

The Kokoa Standard Evaluation
The Process

A client approaches Kokoa and requests the evaluation.

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.

Kokoa Evaluation Software

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

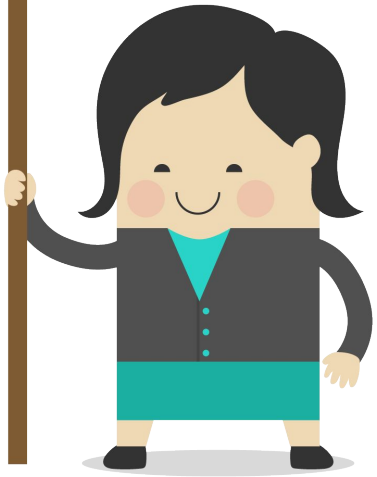
Outcome

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

CERTIFIED
EDUCATIONAL QUALITY
KOKOA STANDARD
2017

All Kokoa certified products can be found on **www.kokoa.io**

Note: This is an example evaluation of an imaginary product. All evaluations are confidential and used as a reference only with a permission from the product's publisher.



The product **Giant Alphabet**
Example evaluation report

Giant Alphabet is an **IMAGINARY** online platform with gamified exercises for practicing letters, reading and creative writing. It provides ready to use lesson materials and tools to facilitate peer assessment.

The use of Giant Alphabet aims to make practicing letters exciting by bringing a gamification aspect into the learning experience.

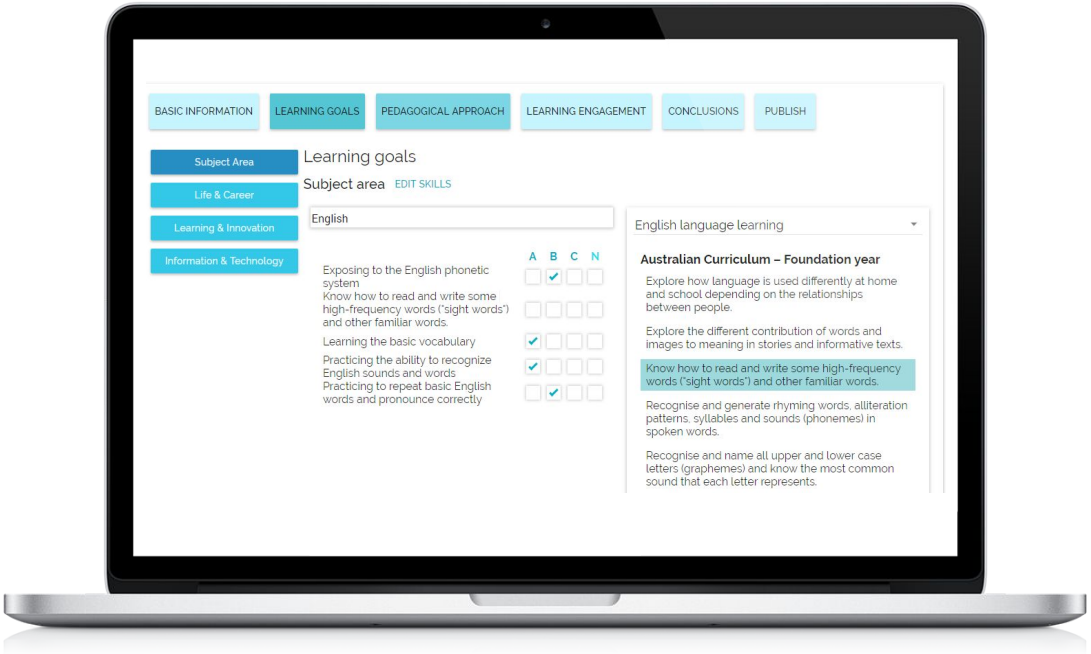
Learning Goals

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 Kokoa 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

Reading & Writing

Subject area - Primary skills

Reading & Writing

1. Practicing correct spelling and grammar. . . . . A
2. Practicing to plan a structure for a story by writing down ideas and/or keywords. . . . . A
3. Designing and producing own written content and textual representations. . . . . A
4. Practicing creative writing through writing narratives about personal experiences and those of others (real and fictional). . . . . A
5. Understanding the value of proof-reading to check for errors in spelling, grammar and punctuation. . . . . B
6. Develop positive attitudes towards and stamina for writing. . . . . B

A = Primary goal: content is didactic

B = Secondary goal: content is facilitative

Compared against: UK National curriculum
Department for Education (2013)

Life & Career

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

Life & Career skills

Social Skills

1. Practicing to express own thoughts and feelings. . . . . A
2. Practicing to give and get feedback. . . . . A
3. Practicing to argument clearly own opinions and reasonings. . . . . B
4. Learning to listen other people's opinions. . . . . B
5. Enabling the growth of positive self-image. . . . . B

Cross Cultural Skills and Global Awareness

1. Supporting student to build their own linguistic and cultural identity. . . . . B

Cross-Disciplinary Thinking

1. Combining information innovatively to find new perspectives. . . . . A

A = Primary goal: content is didactic

B = Secondary goal: content is facilitative

Compared against: Kokoa Standard Transversal Competencies Syllabus (2017)

Learning & Innovation

Critical Thinking and Problem solving / Creativity and Innovation / Learning to learn

Learning & Innovation

Critical Thinking and Problem solving

1. Encouraging students to recognize and evaluate arguments and their reasonings. . . . . A

Creative Thinking and Innovation

1. Creating requirements for creative thinking. . . . . A
2. Encouraging to use imagination and to be innovative. . . . . A
3. Encouraging to be innovative and express new ideas. . . . . B
4. Guiding to use arts as a way to express. . . . . B
5. Encouraging to improvise. . . . . B

A = Primary goal: content is didactic

B = Secondary goal: content is facilitative

Compared against: Kokoa Standard Transversal Competencies Syllabus (2017)

Information & Technology

ICT Literacy / Media & Information Literacy / Multimodal Literacy

ICT Literacy - Primary skills

ICT Literacy

1. Using technology for interaction and collaboration. . . . . A
2. Using technology as a part of explorative and creative process. . . . . A

Media and Information Literacy

1. Practicing to find, evaluate and share information. . . . . B
2. Practicing to use information independently and interactively. . . . . B

Multimodal Literacy

1. Practicing to acquire, modify and produce information in different forms. . . . . B
2. Practicing logical reasoning to understand and interpret information in different forms. . . . . B

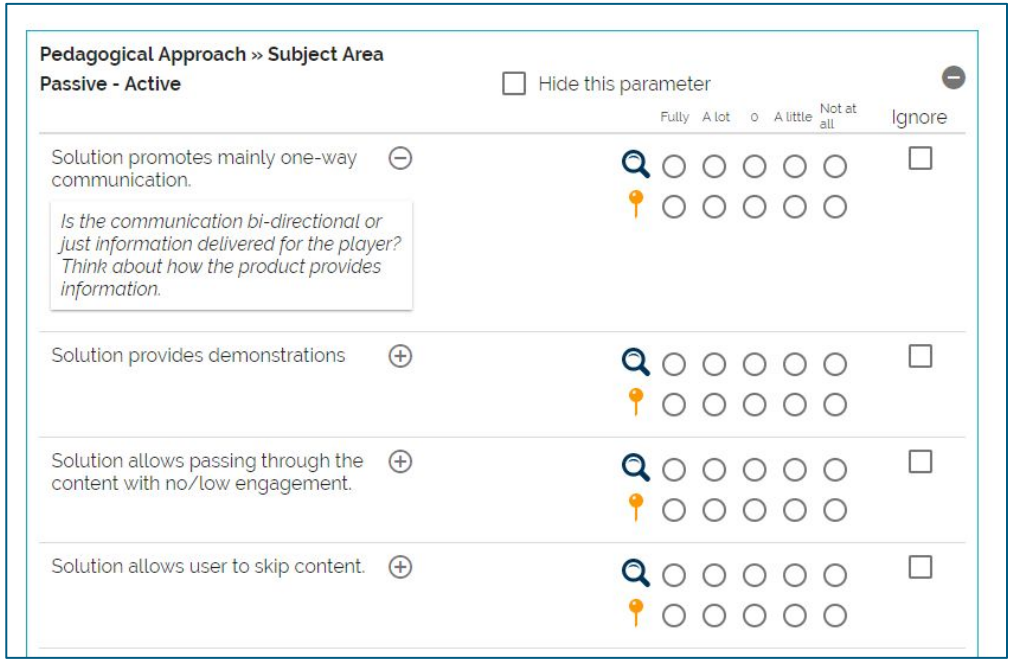
A = Primary goal: content is didactic

B = Secondary goal: content is facilitative

Compared against: Kokoa Standard Transversal Competencies Syllabus (2017)

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 pedagogical principles.

The Rating Scale

95+

Outstanding

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

90+

Excellent

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

80+

Good

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

-80

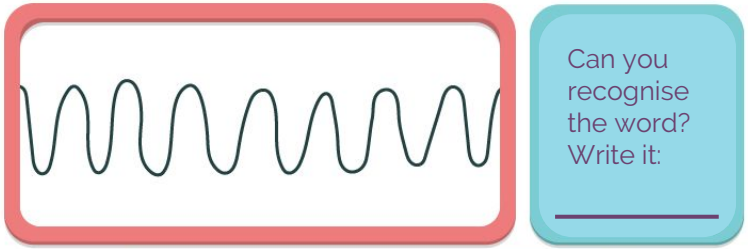
Fair

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

Active - Passive: 81/100 = Good

Passive 81 Active

Strengths: As Giant Alphabet gamifies the learning of letters, reading and writing, it allows excitement and strong emotional engagement to be part of the learning experience. It helps teachers to give students writing tasks and follow the student's progression. The core mechanic sets students in an active role as creative writers, as peer feedback and achievement badges are not received without actively publishing new stories.



Development areas: The product itself could guide students to plan their stories more thoroughly and guide them to actively search for inspiring content made by other users. At the moment it gives inspiration to students but it could support the writing process through giving tips and demonstrating techniques how to plan the content before the writing starts.

Rehearse - Construct: 86/100 = Good

Rehearse 86 Construct

Strengths: The challenges for student's creativity are set by a teacher, as he/she is the one giving the writing assignment, but the tool itself works as a good motivation booster. This way the teacher can also adjust the difficulty level so that every student can have optimal challenges in their learning journey.

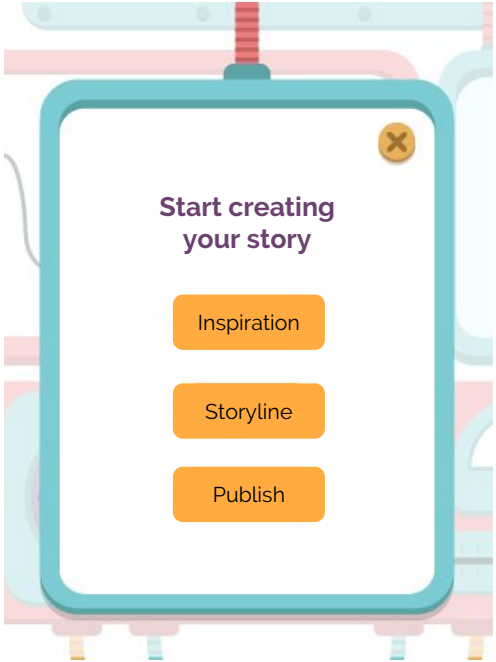
Development areas: In order to support students to develop creative writing skills, the solution could give precise tips and guidance for planning the story and give advice on how to create a functional structure for a story. This can happen for example by helping them to choose the theme of the story, guiding to create mind maps, supporting to choose the main characters and building a storyboard.

Linear - Non-linear: 93/100 = Excellent

Linear 93 Non-linear

Strengths: When starting to use the product, the path is very linear and every students goes through similar tasks so they understand the basics of spelling. As Giant Alphabet encourages students towards creative writing the product offers endless possibilities for self-expression and creative problem solving.

Development areas: The start of the creative writing process could be made easier. It could begin with outlining the contents of the piece. The solution should set a creative problem that the students have to solve. The aim for setting the problem is to turn creative writing into a goal-oriented task and give guidelines for the students' creative thinking. Giving guidelines helps the students to evaluate the story content and set their own goals for it. A good briefing gives a reason for creating the piece and sets a timetable for completing the story.



Individual - Collaborative: 90/100 = Excellent

Individual 90 Collaborative

Strengths: Giant Alphabet provides an engaging way to practice creative writing as it brings the social element to be part of the process. Through given and received feedback the experience is rather collaborative even if writing happens mainly individually. Sharing the creative outcomes is a crucial element of the writing process. As students are aware of the fact that their work will gain broad audience, it is likely to engage and motivate to try harder and make the story interesting and entertaining.

Development areas: As getting feedback is an important part of the creative process, Giant Alphabet could provide a structured way to give peer reviews. At the moment it is up to the teacher to organise the feedback situation. This way students would learn both to receive and give constructive feedback.

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

5-4

Well supported

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

3-2

Supported

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

1

Not Supported

There are issues with the learning engagement in this area.

Overview

	Autonomy 4	Competence 3	Relatedness 3	Respect 3	Stimulation 4	Safety 5
Strengths	Plenty of choices on how to progress and always something to do.	Well tutored activities and good difficulty level throughout the app.	Fun characters and right level of social interaction for the target group.	Setting is familiar and easily relatable for kids from different backgrounds.	High quality graphics, animations and sounds.	Publishing a low quality content doesn't feel too frustrating and you never lose things you have done.
Development areas	It's sometimes unclear, why a level is passed in certain way.	UI has some illogical and hard to use parts.	The feedback giving and receiving is not really rewarded.	The feedbacks the app gives are sometimes hard to understand or missing.	Some activities are really simple and might not interest the users.	

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.

As a teacher
Giant Alphabet is designed for a feedback platform for creative writing. The tools in Giant Alphabet will enable other kind of use as well - posting images of artwork, non-fiction writing or basically anything. The use of the service has some features, which intentionally limit the use of the system - the teachers can't edit or even easily find their own published posts for example. Some of the limitations are justified, but some of them will make the use unnecessarily harder.

As a parents/pupil
The use of Giant Alphabet is very teacher led. This is well justified, because the tool is for school use, and the community of teachers in Giant Alphabet is a good moderator for the content. The actions of pupils and parents are limited to reading and commenting. In the pupil's view, the comments are shown nicely.

Competence

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

As a teacher
Giant Alphabet offers a very well guided path to assignment creation and assignment management. The tutorial is helpful for the first time users. However, getting the teachers to understand the usefulness of Giant Alphabet might be challenging in some cases. The service should justify some choices better and explain, what is the intended use of the in the classroom.

As a parent/pupil
The parents will receive very nice and clear messages from Giant Alphabet, which will guide them to their child's work. However, if they sign in to the system, they have very limited tools for finding their child's work. They get notifications, but after viewing them, they can't easily find their own child's work. A parent might have limited interest to other children's work, so showing that to them should have a lower priority.

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.

As a teacher
In Giant Alphabet there's a strong sense of community, because all public works are public to everyone. Anyone can comment the work as well. However, the community feeling could be even more prominent, and the teachers could have better tools for finding inspiring content and even communicating with other teachers.

As a parent/pupil
The parents are notified about the work of their child, and they can go commenting that. The pupils have nice tools for peer feedback, they can filter post by their own class or school. The pupils are directed to be positive in their commenting.

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.

As a teacher/parent/pupil
Giant Alphabet doesn't make any assumptions about it's "default user" in the terms of gender, culture, race or nationality. The system messages and UI are designed in the way that the language doesn't exclude anyone. The illustrations don't have any unnecessary stereotypes, they are nice and attractive.

Giant Alphabet has some issues with the user feedback and general performance of the system. Because the focus is in the public feed, it is hard to find your own publications or publications of someone particular. This is a conscious choice from the designers of the system, but it should be better justified to the users. At the moment preventing eg. teachers easily filtering the feed to find their own students' work feels like it is done because the designers "know better" than the users, what the users want.

Stimulation

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

As a teacher
Although the teachers will appreciate the usefulness of the product over the enjoyment and aesthetics, Giant Alphabet doesn't neglect these aspects either. The UI is pleasantly looking and the system messages and dialogues are nicely illustrated. The feed always offers something new, so the teachers have a chance to find inspiring content.

As a parent/pupil
The UI and feel of the service is pleasant and approachable also for parents and pupils. Because the system can be used for students from age 4 up to 17 (and it would potentially work with older students as well), the system needs to look quite generic and professional. The students could be more encouraged to explore other people's work. This could be done by showing them more relevant content in the feed, eg. prioritizing the works of their own age group or showing works with similar subjects they themselves have published.

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.

As a teacher
In Giant Alphabet, the main safety worry with teachers, parents and pupils are related with public publishing of the works and knowing the status of the work. For the teacher, the publishing process tells clearly about the status of publicity of the work. The parental permissions are also well taken care of. The system offers good tools for moderating and flagging comments.

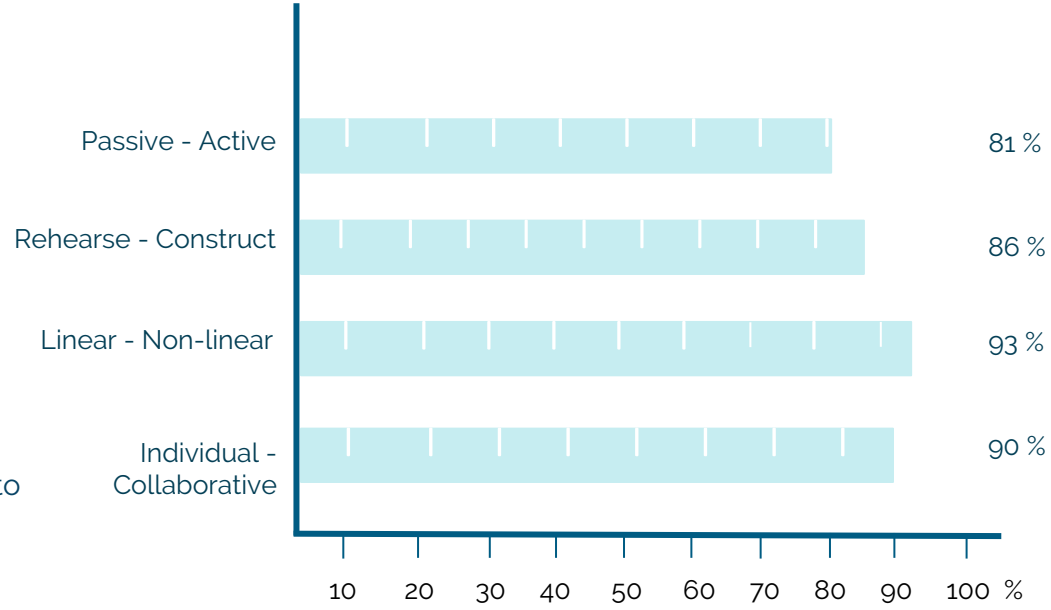
As a parent/pupil
Because the publishing process is completely teacher led, the pupils and parents don't need to worry about that. The parents will receive well explained permission request, which offers plenty of more information if the parent is uncertain.

When a student publishes something, and the parent follows the link to see the publication, the page presenting the work doesn't actually show, if the work is public to everyone in Giant Alphabet or not. It also doesn't tell, who can read the comments the parent writes to the post. This should be more clear.

Results

Combined scores of pedagogical dimensions:

- Reading & Writing: **6 Skills**
- Life & Career: **7 Skills**
- Learning & Innovation: **6 skills**
- ICT Literacy: **6 skills**



The score explains how product performs when considering different pedagogical dimensions. According to the analysis, the main development needs are to **make students role more active** and the **learning experience more constructive.**

Giant Alphabet – High Educational Quality Aspects

1. Increases **emotional engagement** in writing process.
2. Supports learning through **peer-feedback.**
3. Provides meaningful, **goal oriented** assignments.
4. Supports student's **autonomy** by leaving plenty of choices for learner.
5. **Feedback** of success is clear and comes immediately.
6. Requires student to **engage** with writing assignments in order to progress.
7. It is easy for students to **reflect** their own learning progress.
8. **Pleasant and safe to use** and respects all users equally regardless of user's age or gender.

Pedagogical Approach 88 %

Learning Engagement 3.7

CERTIFIED

EDUCATIONAL QUALITY

GIANT ALPHABET

KOKOA EDUCATION STANDARD - FINLAND

2017

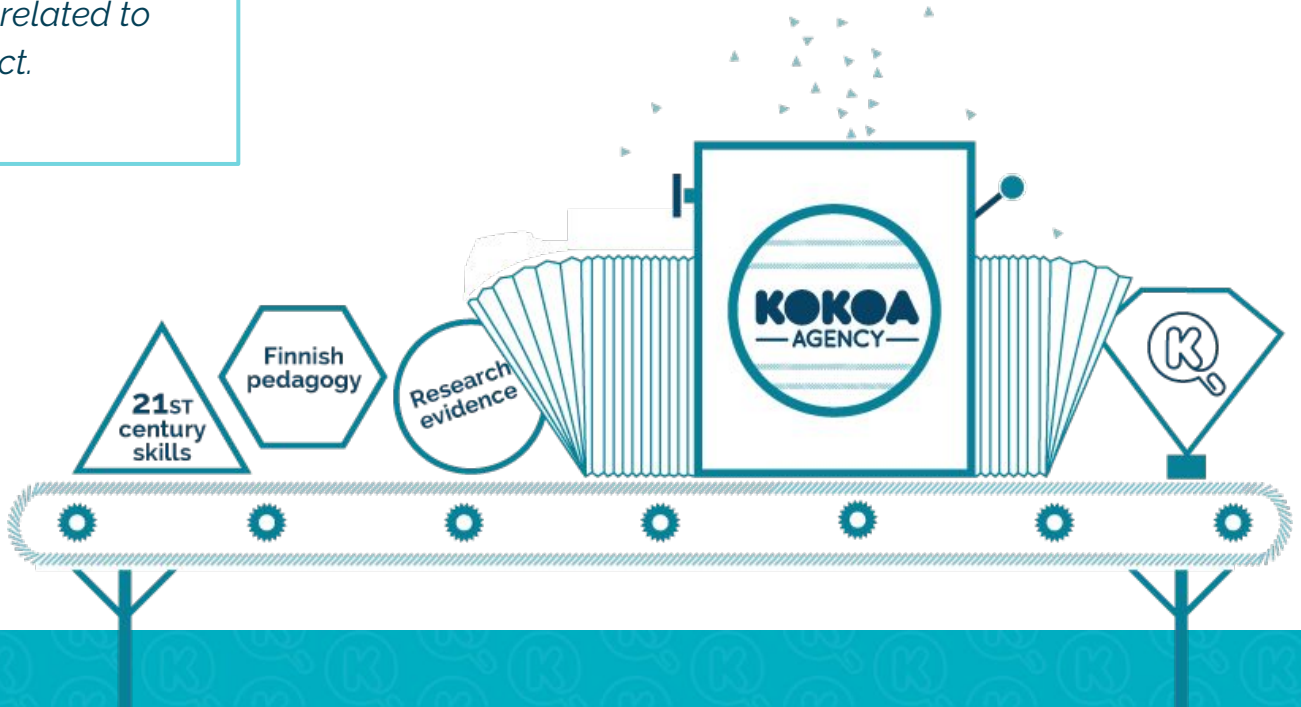
According to Kokoa Education Standard evaluation, Giant Alphabet represents high educational quality and is proven to promote learning efficiently.

Background

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

Standard

The standard for analysis is built around 21st century skills, Finnish pedagogy and existing research related to the product.



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

- Defining **what** and **how** the product teaches
- Analysis of features which **engage** the learners
- Pointing out the strengths and development areas
- 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.

Pedagogical approach - Passive / Active

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**

Hietajärvi, Maksniemi (2017) / Engaging learning Ltd. (University of Helsinki)

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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Pedagogical approach - Linear / Non-linear

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,.

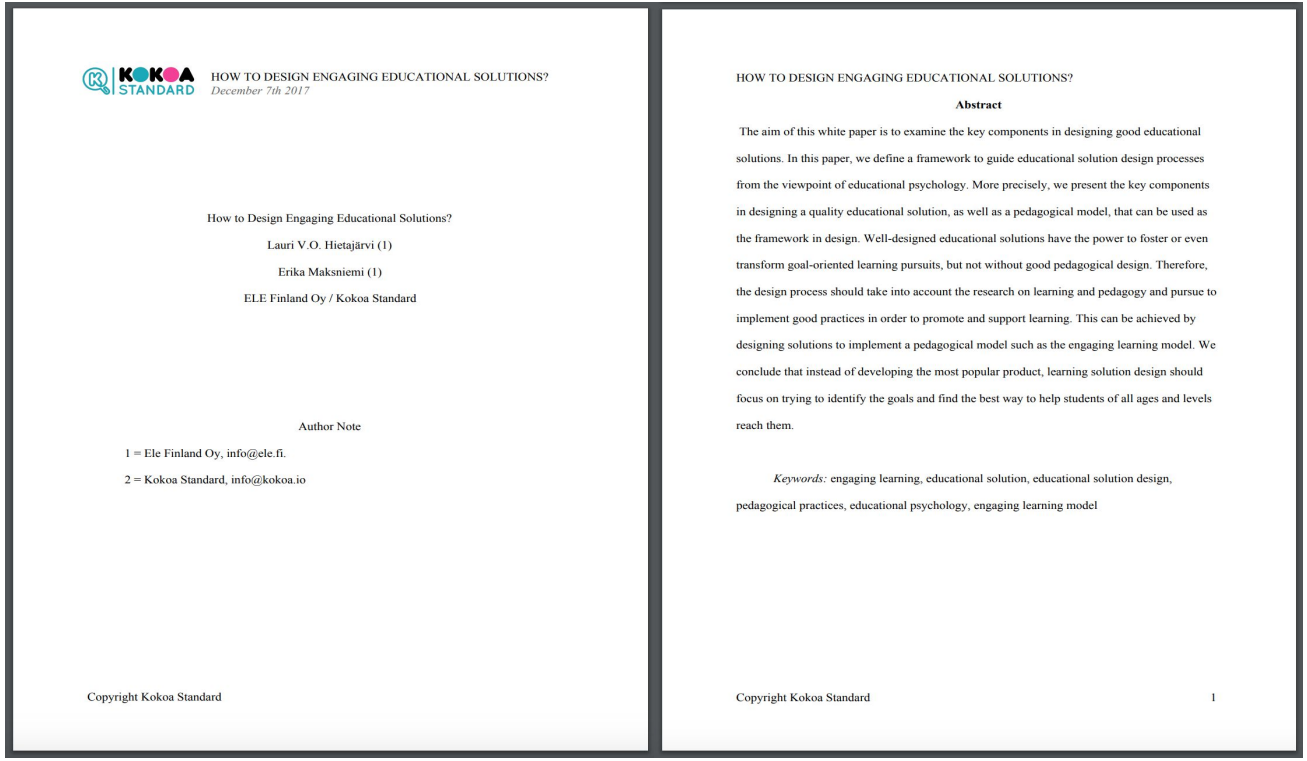
The evaluation focuses on things the users are able to do in the product, and how these features make the users feel. It takes into account the general usability of the products, but looks behind issues which are not essential for the experience. Therefore this type of evaluation is also suitable for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

Theoretical background

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



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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