Pedagogical Quality Report

Writing Legends

About EdTech Impact

[EdTech Impact](#) provides an evidence-first marketplace that empowers educators and institutional leaders to make smarter buying decisions.

The platform brings together a diverse, and often siloed, community of EdTech users, EdTech providers, EdTech researchers and EdTech analysts to systematically assess the quality of education technology using a holistic assessment framework, global quality standards, and time-stamped certification programme.

Today, over 2,000 companies leverage the platform's data-driven insights to strengthen their product, showcase an independent and reliable evidence base, and gain access to a vibrant marketplace of over 400,000 in-market buyers.

EdTech Impact strikes a balance between robust research and practical user insights, giving a voice to all stakeholders, and an agile solution to building a sustainable evidence-first EdTech ecosystem within a variety of contexts.

EdTech Quality Framework

LAWFUL, ETHICAL & SAFE
- Data responsibility & privacy
- AADC & equity
- Cybersecurity
- Socio-ethical requirements
- Algorithmic fairness & human rights

QUALITY PEDAGOGY
- Pedagogical design
- Pedagogical flexibility
- Quality content
- Usability
- Learning Engagement

USER EXPERIENCE
- User satisfaction
- Vendor responsiveness
- Easy of setup
- Training and support
- Pricing value

RESEARCHED IMPACT
- Design of the study
- Sample
- Outcome measures
- Implementation/fidelity
- Context and relevance

The EdTech Impact Quality Framework is supported and governed by a consortium of research partners and expert organisations

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 Quality Pedagogy certificate.

Writing Legends

Writing Legends is a systematic-time-saving writing program that develops essential writing skills and fosters enjoyment of writing

Learning Goals

Matching the learning goals

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

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

The EAF Tool has several hundred skills listed from various national curricula on a number of subjects (Languages, STEM, Arts, etc.)

Explanations

A
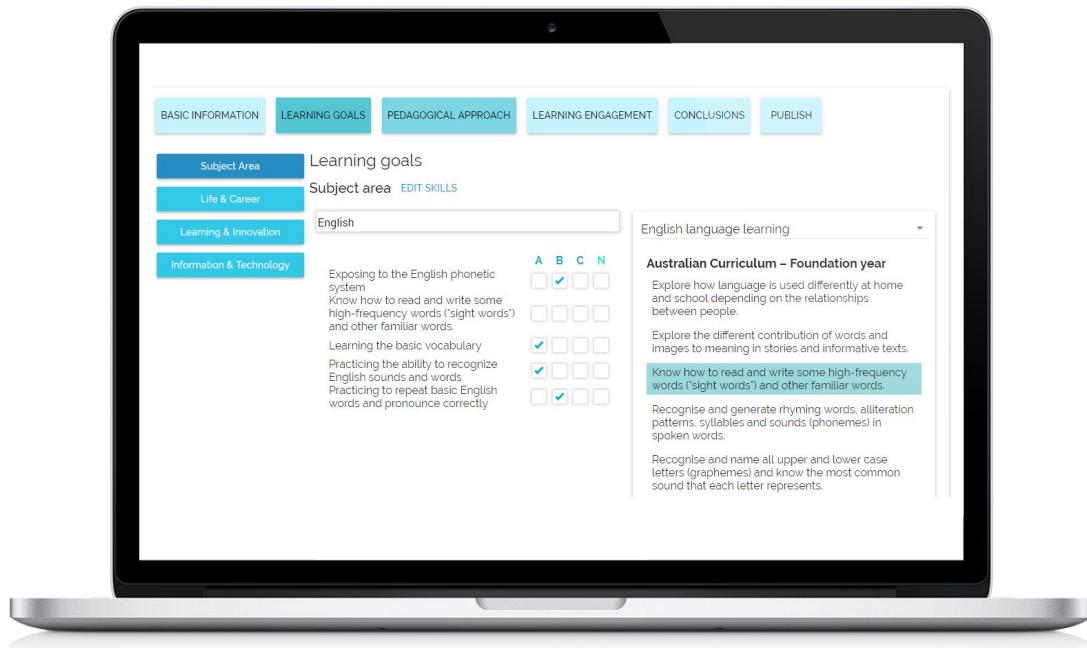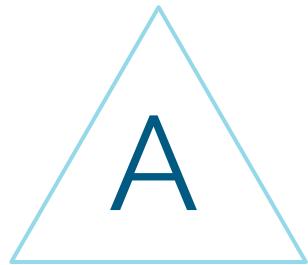
Primary Goals

Content is instructional and didactic: These skills are constantly learnt in the core usage.

B
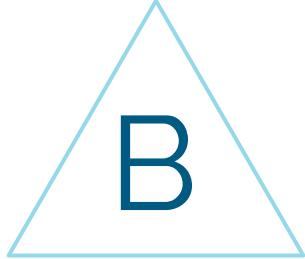
Secondary Goals

Content is partly instructional, partly facilitative: These skills are learnt in the core usage, but are 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

Multiple subject areas / Learning Management

Subject area - Primary skills

UK National Curriculum - English - Writing – composition - Key Stage 1 - Year 1

1. Write sentences by sequencing sentences to form short narratives. **A**

2. Write sentences by re-reading what they have written to check that it makes sense. **A**

3. Writing narratives about personal experiences and those of others (real and fictional). **A**

4. Writing about real events. **A**

5. Writing for different purposes. **A**

6. Writing down ideas and/or key words, including new vocabulary. **A**

7. Encapsulating what they want to say, sentence by sentence. **A**

Subject area - Primary skills

UK National Curriculum - English - Writing – composition - Key Stage 1 - Year 1

8. Make simple additions, revisions and corrections to their own writing by re-reading to check that their writing makes sense **A**

9. Make simple additions, revisions and corrections to their own writing by proof-reading to check for errors in spelling, grammar **A**

10. Discuss what they have written with the teacher or other pupils. **B**

11. Make simple additions, revisions and corrections to their own writing by evaluating their writing with the teacher and other pupils. **B**

Subject area - Primary skills

UK National Curriculum 2013 - English - Writing – composition - Key stage 2 - Years 3 and 4

1. Plan their writing by discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar. **A**

2. Plan their writing by discussing and recording ideas. **A**

3. Draft and write by organising paragraphs around a theme. **A**

4. Draft and write in narratives, creating settings, characters and plot. **A**

5. Draft and write in non-narrative material, using simple organisational devices **A**

6. Proof-read for spelling and punctuation errors. **A**

Subject area - Primary skills

UK National Curriculum 2013 - English - Writing – composition - Key stage 2 - Years 3 and 4

7. Evaluate and edit by proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences **A**

8. Evaluate and edit by assessing the effectiveness of their own and others' writing and suggesting improvements. **B**

Subject area - Primary skills

UK National Curriculum 2013 - English - Writing – composition - Key stage 2 - Years 3 and 4

1. Plan their writing by discussing writing similar to that which they are planning to write in order to understand and learn from its **A**

2. Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals. **A**

3. Decompose problems and subproblems into parts to facilitate the design, implementation, and review of programs. **A**

4. Create procedures with parameters to organize code and make it easier to reuse. **B**

5. Seek and incorporate feedback from team members and users to refine a solution that meets user needs. **B**

6. Incorporate existing code, media, and libraries into original programs, and give attribution. **B**

Life & Career

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

ICT Literacy - Primary Skills

Wellbeing and Sustainable Development

1. Learning to face failures and disappointments .... **A**

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

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

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

5. Practicing to take care of one's own and other people's safety .... **N**

Life & Career skills

Cross-Disciplinary Thinking

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

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

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

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

Life & Career Skills

Cross Cultural Skills and Global Awareness

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

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

3. Learning to face respectfully people and follow the good manners .... **B**

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

Life & Career Skills

Social Skills

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

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

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

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

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

6. Learning to listen other people's opinions .... **B**

7. Practicing to work with others .... **B**

Life & Career Skills

Work life skills and Entrepreneurship

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

2. Practicing decision making .... **A**

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

4. Connecting subjects learned at school to skills needed at working life ..... **B**

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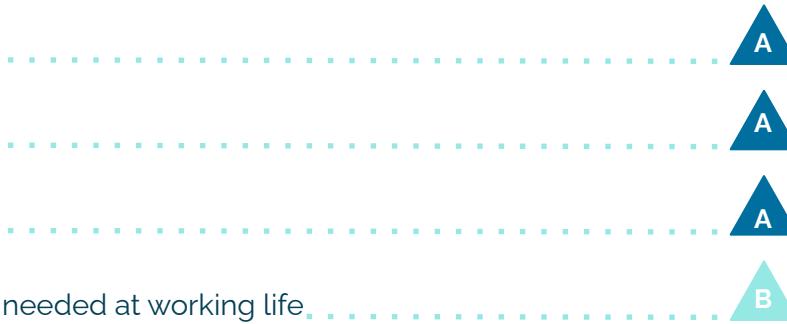
Information & Technology

Media and Information Literacy / Multimodal Literacy / ICT Literacy /

ICT Literacy - Primary Skills

Multimodal Literacy

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

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

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

4. Learning to understand and interpret diverse types of texts .... A

ICT Literacy - Primary Skills

Media and Information Literacy

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

2. Practicing keyboard skills and touch typing .... **A**

3. Learning the basics of spelling .... **A**

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

ICT Literacy - Primary Skills

ICT Literacy

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

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

3. Using technology resources for problem solving .... **B**

Learning & Innovation

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

Learning & Innovation

Cognitive and thinking skills

1. Practicing letters, alphabets and written language .... **A**

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

3. Practising visual recognition .... **B**

Learning & Innovation

Learning to Learn

1. Practicing persistent working .... A

2. Practicing to take responsibility for one's own learning .... A

3. Practicing to set one's own learning goals .... A

4. Practicing to evaluate one's own learning .... B

5. Learning to find the joy of learning and new challenges .... B

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

Life & Career Skills

Creativity and Innovation

1. Creating requirements for creative thinking .... A

2. Practicing creative thinking .... A

3. Encouraging students to be innovative and express new ideas .... A

4. Practicing to use imagination and to be innovative .... A

Life & Career Skills

Critical Thinking & Problem Solving

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

2. Developing problem solving skills .... **A**

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

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

5. Learning to find solutions in social conflicts .... **B**
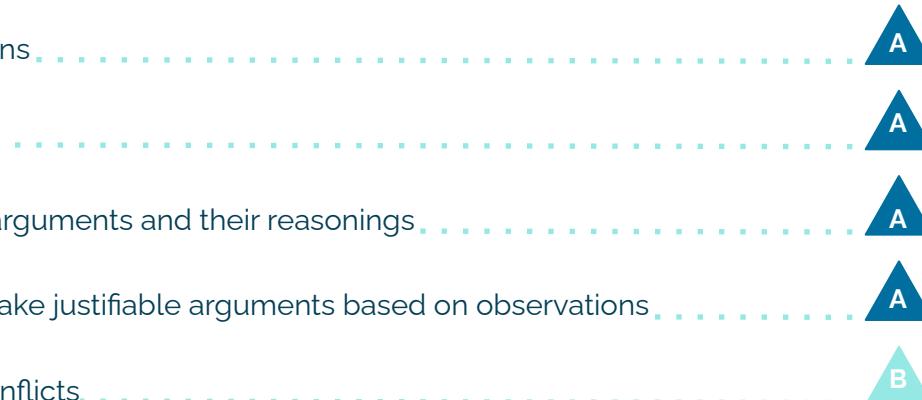
Pedagogical Approach

Assessing the pedagogy

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

The answers to the questions result in 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 at the Helsinki University.

Criterion definition

○ **Passive** / **Active**

Passive: Learner in an observant role

Active: Learning by doing

○ **Individual** / **Collaborative**

Individual: Learner is learning by themselves

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 what was previously 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.

Rating Scale

-80
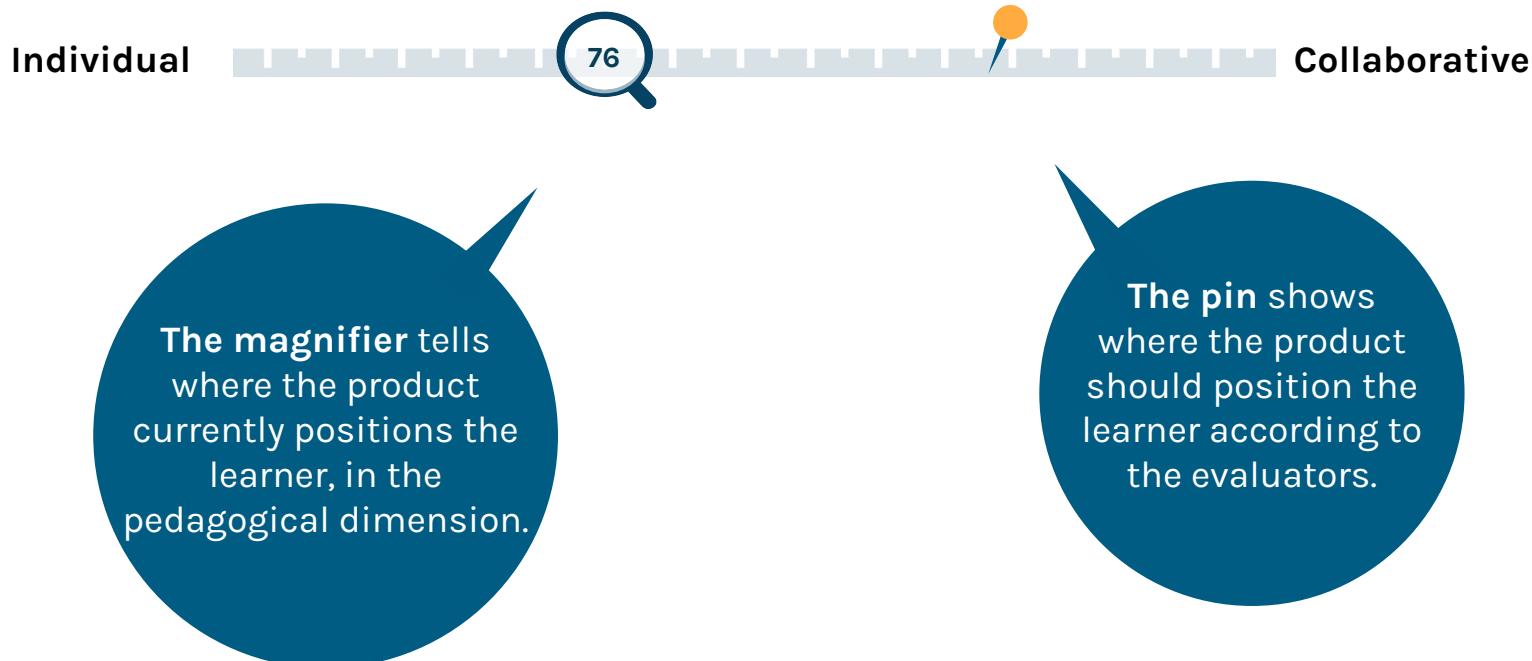
Fair

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

80+
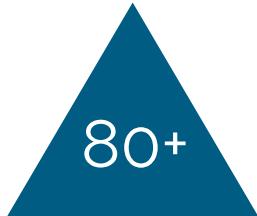
Good

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

90+

Excellent

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

95+

Outstanding

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

Passive - Active: 92/100 = Excellent

Passive ▭▭▭▭▭▭▭▭▭▭ 92 ▭▭▭▭▭ Active

Strengths:

Learners are given a high degree of freedom to decide the next move that best serves their interests, whether assessing their knowledge of writing concepts, selecting a new topic idea to work with, reviewing previous assignments, or brushing up on vocabulary or spelling weaknesses. The solution supports the learner well with the scaffolding, tools, and encouragement to proceed confidently.

The ladder-like progression structure allows users to build their skills step by step, gradually increasing the difficulty.

Motivation and encouragement are present at each stage, helping learners stay engaged and confident as they progress.

Passive - Active: 92/100 = Excellent

Passive ————————————— 92 ● ———————————— Active

Development areas:

Navigating the lesson map can be confusing, as lessons are primarily indicated with numbers and uninformative graphics. This makes it cumbersome to locate specific lessons if a learner wants to revisit previous content. Some introductions to new themes are relatively long, which could potentially disengage some learners. A possible improvement would be to make these intros more interactive—for example, by including small tests or activities midway through, prompting learners to recall and apply what they've just read. This could lead to greater commitment and deeper learning from the outset.

Rehearse - Construct: 92/100 = Excellent

Rehearse ———————— 92 ————————— Construct

Strengths:

While all learners get access to the same subject matter, the solution is suitably adaptive to the specific needs of individual learners. This includes tailored lists of vocabulary and spelling errors, and the ability to revisit previous assignments to make improvements. Learners are gradually introduced to (and quizzed on their understanding of) writing concepts in the lessons; however, knowing these concepts isn't a direct requirement for success, but they rather function as additions to the learner's writing toolset and give them new ways to engage with the writing process.

Rehearse - Construct: 92/100 = Excellent

Rehearse ————————————— 92 ————————————— Construct

Development areas:
Learners are prompted to rate their level of satisfaction with their writing before submitting an assignment, but not guided on how to do so or asked to elaborate. Some tips to help with reflection could be helpful.

Linear - Non-linear: 95/100 = Outstanding

Linear ▬▬▬▬▬▬▬ 95 ▬▬▬▬▬▬▬ Non-linear

Strengths:

The solution incorporates a solid variety of learning approaches, which range from closed (quizzes to assess understanding of writing concepts as explained in videos) to open-ended (writing prompts that encourage creativity). Learners are largely empowered to engage with this content as they see fit; for example, they can move forward with new lessons, practice acquired writing skills, or revisit old content to sharpen up areas in need of development.

Linear - Non-linear: 95/100 = Outstanding

Linear ━━━━━━━━━━━ 95 ━━━━━━━━━━━ Non-linear

Development areas:

The reward system, which gives learners virtual coins based on how well they meet certain criteria in writing activities, seems like a strong motivator for learners to refine their work or to go the extra mile. However, there is some concern that some learners may "game the system" and add insubstantial content for the sake of gaining more coins, rather than exercising writing skills in an organic manner.

Individual - Collaborative: 92/100 = Excellent

Individual — 92 — Collaborative

Strengths: One of the key strengths of the solution is that it allows learners to set individual goals. By setting personal objectives, learners can maintain motivation and focus, making their educational journey more personalized and meaningful. Another advantage is the inclusion of collaboration, though it is not mandatory. While students can choose to engage with others, this feature is optional, giving them the freedom to learn independently if they prefer. This balance between collaboration and autonomy ensures that the solution caters to both individual learners and those who thrive in

Individual - Collaborative: 92/100 = Excellent

Individual 92 Collaborative

Development areas:
It might be helpful to make learners' written work accessible to other learners (if they approve). This could expose them to new ways to think about a familiar topic, or familiarise them with new words.

Learning Engagement

The Six Aspects of Learning Engagement

Autonomy

The user feels that their actions in the product are based on their own decisions, free of external pressure.

Competence

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

Relatedness

The user feels that in the product, there is meaningful contact with people who care about them rather than feeling lonely and neglected. Users can also feel connection with fictional characters and events in the product.

Respect

The user feels that they are considered as a capable and desired actor rather than one whose opinions and experiences are neglected.

Stimulation

Feeling that the product offers plenty of enjoyment and pleasure rather than a feeling of boredom and understimulation.

Safety

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

The Rating Scale

1
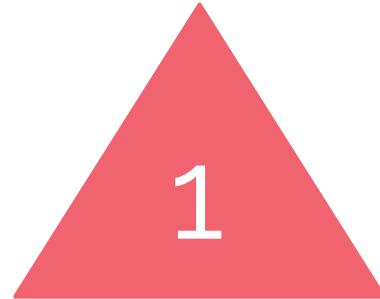
Not Supported

There are issues with the learning engagement in this area.

2-3
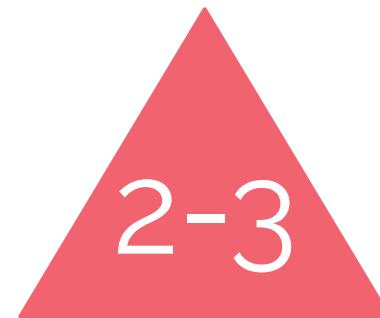
Supported

The product considers this aspect of learning engagement. Some improvements could be made in order to improve the support.

4-5
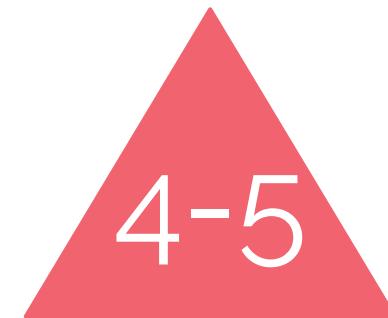
Well supported

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

Autonomy   Score: 4.05/5 = Well Supported

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

Main strengths	Score
1. It is easy to understand, what is the goal in using the product...	4.7
2. The product motivates the use well.	4.7

The solution allows learners to dive straight into writing tasks if they prefer, but also provides support in the form of lessons that build their knowledge of fundamental writing concepts. The data provided to teachers can also help them to give the appropriate guidance to learners without interfering with their autonomy.

Autonomy   Score: 4.05/5 = Well Supported

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

Main development areas   **Score**

1. The user can create their own goals for the use. **3.3**

2. The product sets limitations for using it when and where I want to, and the limitations feel **3.3**
   unnecessary or annoying.

When the teacher directly assigns a writing activity to a learner, the learner is unable to do anything else within the solution interface until the activity has been completed. This seems to disable access to certain tools that could assist with the activity, such as the vocabulary list.

Competence   Score: 4.3/5 = Well supported

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

Main strengths	Score
1. The product rewards the user in a meaningful way and according to the challenge	**5.0**
2. The product gives you enough information to use it efficiently.	**4.7**
3. It is possible to feel successful and proud of myself when I am using the product.	**4.7**

The solution incorporates a high degree of positive reinforcement in the form of praise and rewards (virtual coins in this case). The automated scoring for each writing activity breaks down the specific factors that a learner implemented well or not-so-well; this is important because it recommends what a learner can do to improve an unsatisfactory score.

Competence   Score: 4.3/5 = Well supported

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

Main development areas	Score
1. Experienced and advanced users can find more challenge in the product.	**3.0**

The lesson map is charming and fun, but a bit confusing to use; lessons are given numbers and simple graphics, which tell little about the content within. If learners want to revisit previously completed lessons for additional practice, they may have difficulty locating them.

Relatedness   Score: 3.9/5 = 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 provides examples or motivation to learn the skill it tries to teach.	5.0
2. The story or fictional world present in the product motivates learning	5.0

The solution provides ample examples of writing to help learners understand the target outcome of each writing activity, and even breaks down the specific elements that make those examples work. The subjects of the writing prompts are also a good mix of relatable topics and new ideas to broaden learners' horizons.

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 supports communication with other people and there are good reasons to communicate.	2.0
2. The product supports social interaction, such as multiplay or sharing of content with other people.	2.0

Perhaps learners could be allowed to share the work they are proud of.

Respect

Score: 4.6/5 = Well 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 include discriminative narrative or enforce unnecessary stereotypes **5.0**

Respect   Score: 4.6/5 = Well 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 development areas   **Score**

1.   The product is suitable for both inexperienced and experienced users. Players can eg. skip tutorials or   **4.3**
       choose wanted difficulty levels

Could include a feature to give feedback or inform about potential bugs /crashes? *(Editor's note - No bugs, crashes or technical issues were found during our evaluation)*

Stimulation   Score: 4.7/5 = Well supported

Feeling that you get plenty of enjoyment and pleasure rather than feeling bored and unstimulated 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.	4.7
2. The product's challenge level is optimal for the targeted users, or it can be chosen	4.7

The settings, graphics, and game elements are all of high quality and age-appropriate.

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

Main development areas   **Score**

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

Main strengths	Score
1. The product doesn't include content or advertising which would be harmful for the targeted users	5.0
2. The user does not lose any hard-won rewards or results if they do something wrong	4.3

The learner is never punished for trying, and is even rewarded for going beyond the base requirements of each writing activity. If a learner makes spelling errors, the words are added to a list, turning the situation into a learning opportunity. At worst the learner still acquires virtual coins to spend in the Realms (the solution's world-building simulation).

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

Main development areas   **Score**

1.   There is a way to report and possibly block misbehaving users. **1.5**

Results

High Educational Quality Aspects

1. A well-constructed, adaptable platform for students of all levels, with a wide range of exercises to help improve reading and writing skills, ensuring effective learning.
2. Encourages learner creativity in writing, and backs it by providing scaffolding, tools, and feedback.
3. Motivating and fun to use.

Pedagogical Approach **93 %**

Learning Engagement **4.2**

According to Pedagogical Quality evaluation, Codiplay represents high educational quality and is proven to promote learning efficiently.

The EAF Method Background

Quality Pedagogy

EdTech Impact conducts impact evaluations with the help of the EAF method based on global quality standard for learning solutions.
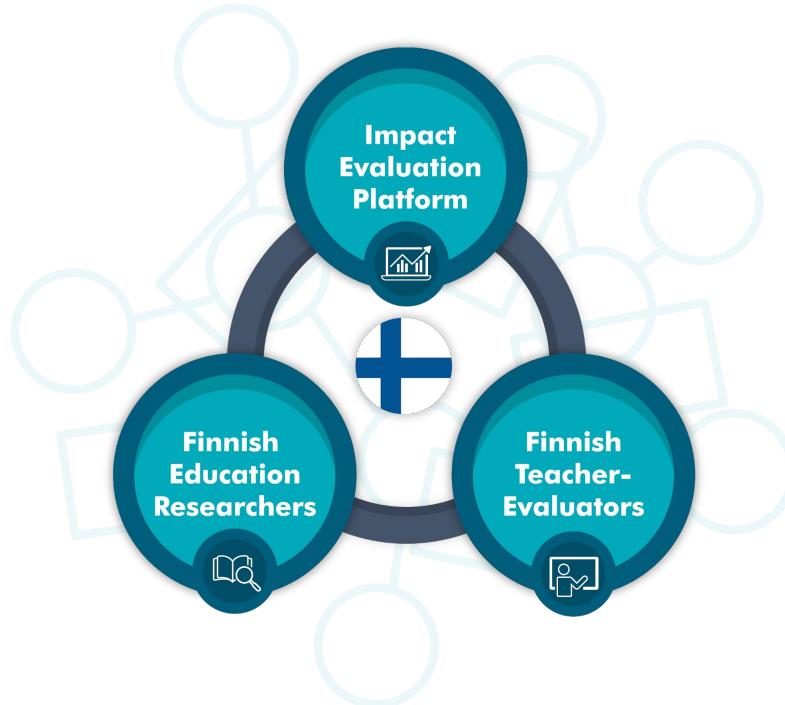
Expert Evaluation and Rating

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 diagnosis 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-three 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**

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

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**

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

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**

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

Assessing User Happiness

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

The evaluation uses a list of heuristics which focus on the activities the users are able to do with the product and how these interactions make the users feel. It considers 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 the features that support the user happiness the best are 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 user happiness are adapted from Hassenzahl, 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 external pressure to choose a certain action.*
1. The user can create their own goals for the use of the product.	4. The product sets limitations for use; when and where. And the limitations feel unnecessary or annoying.
2. The product motivates the user as well	5. It is possible to make choices, and the different choices have clearly different and meaningful outcomes.
3. It is easy to understand the goal of using the product.	6. It is possible to use creativity to 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 oneself when 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..

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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 are a number of good reasons to communicate

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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, for example,. skip tutorials or choose their desired 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.	

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Inostroza, Rodolfo et all (2012). Usability Heuristics for Touchscreen-based Mobile Devices.
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Stimulation	*Feeling that you get plenty of enjoyment and pleasure rather than feeling bored and unstimulated by the product.*
1. The product encourages further exploration	4. The user doesn't need to unnecessarily 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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Learning Engagement

Safety	*Feeling that the product is a safe environment for having fun and trying out things rather than feeling uncertain of the consequences or being threatened by other users.*
1. Making errors is beneficial. Every time 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. If 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 to the targeted users.	6. The user cannot make irreversible errors. Points that lead to restarting the product or re-doing things without a considerable effort should not be possible.

Sources: The heuristics are adapted from the following sources:
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Nielsen, Jacob. (1994a). Enhancing the explanatory power of usability heuristics.

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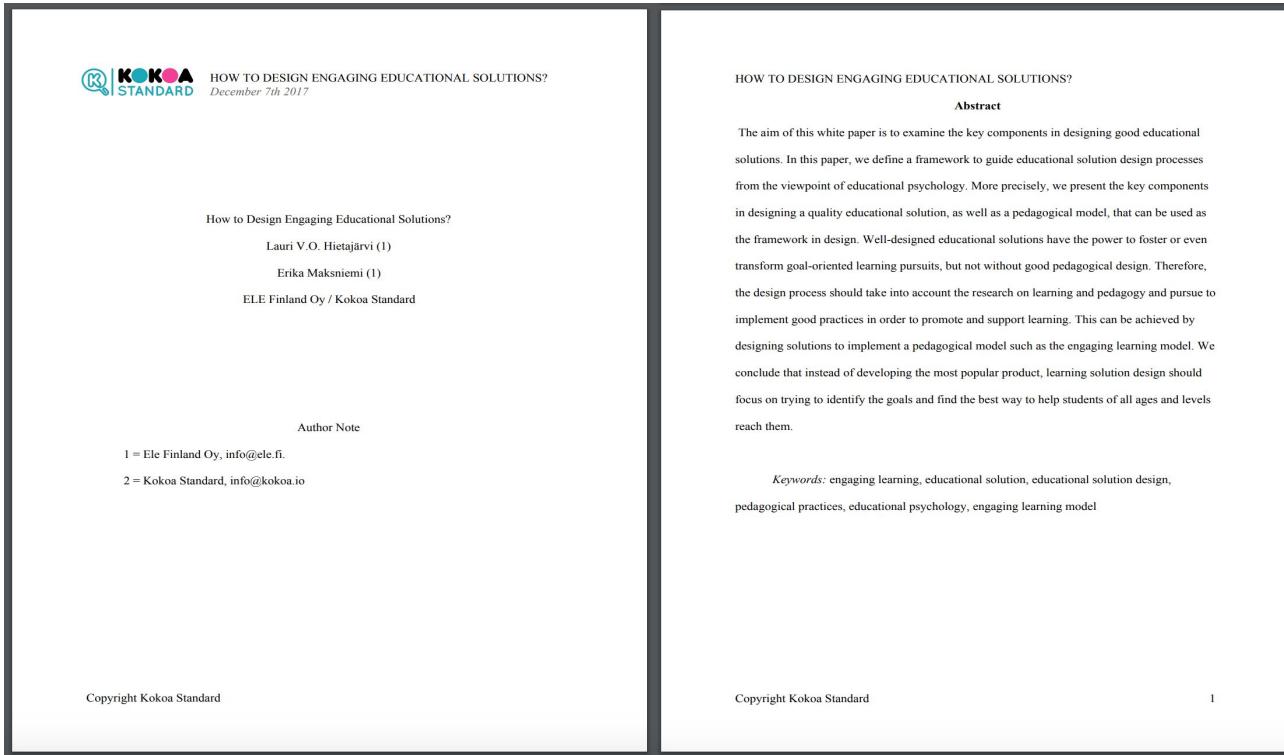
KOKOA STANDARD

HOW TO DESIGN ENGAGING EDUCATIONAL SOLUTIONS?
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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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