

# Assessing Learning Engagement

The following framework and heuristics are used in the Education Alliance Finland evaluation process. It is meant to be applied by experts when evaluating or designing interactive products.

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.

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

The Learning Engagement assessment framework is created by EAF and published in:  
[Heuristics evaluation of learning engagement based on psychological need fulfillment model](#), Saira Juuti, 2020

# EAF Learning Engagement Evaluation Framework

Aspect	Definition	How to apply
<b>Autonomy</b>	<i>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</i>	Enabling user's choices or creativity
<b>Competence</b>	<i>Feeling that you are capable and effective in your actions rather than feeling incompetent or ineffective</i>	Giving instant feedback and rewarding correct actions
<b>Relatedness</b>	<i>The product supports meaningful contact with people who 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.</i>	Allowing the user to show or share their success with other people

# EAF Learning Engagement Evaluation Framework

<b>Aspect</b>	<b>Definition</b>	<b>How to apply</b>
<b>Respect</b>	<i>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.</i>	Allowing the user to adjust the experience to suit them better
<b>Stimulation</b>	<i>Feeling that you get plenty of enjoyment and pleasure rather than feeling bored and understimulated by the product.</i>	Providing pleasant surprises
<b>Safety</b>	<i>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</i>	Allow re-doing or correcting actions without considerable effort

<b>Autonomy</b>	<i>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.</i>	
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 al (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.

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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.*

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

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## Respect

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

<p>1. The product gives clear feedback on all your actions</p>	<p>4. The product is suitable for both inexperienced and experienced users. Players can eg. skip tutorials or choose wanted difficulty levels</p>
<p>2. The product doesn't make assumptions on player's age, gender, race or origin.</p>	<p>5. The product doesn't have bugs which cause errors or crashing.</p>
<p>3. The product doesn't include discriminative narrative or enforce unnecessary stereotypes</p>	

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<b>Stimulation</b> <i>Feeling that you get plenty of enjoyment and pleasure rather than feeling bored and understimulated by the product.</i>	
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.

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<b>Safety</b>	<i>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.</i>	
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

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