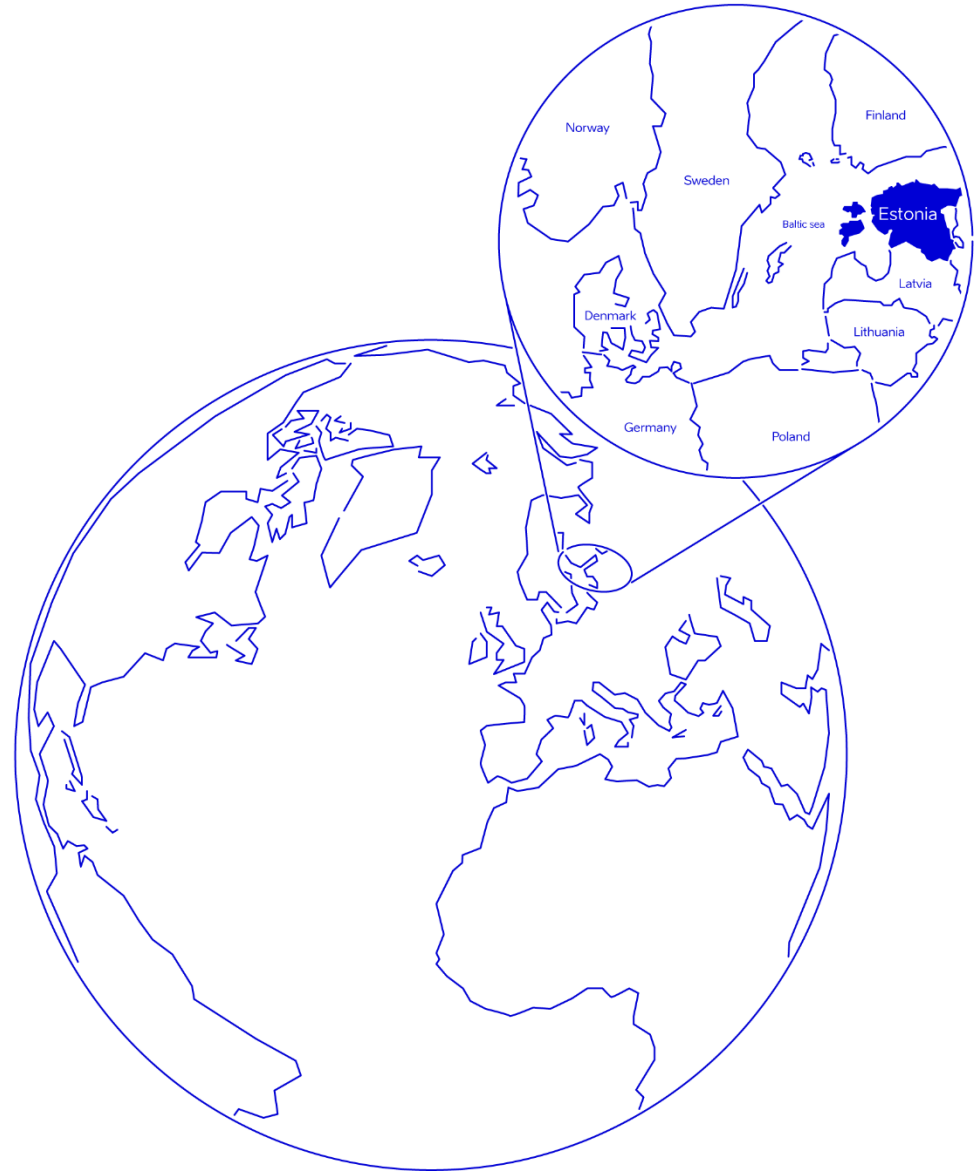# What are the best practices of Estonia in coping with pandemic and what has it learned for future education?

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How did we learn?
What did we learn?
How learning was changed?
What was the effect of technology?
How to frame learning for future?
Next steps...

How did we learn?

+ We shared the prepared assignments to the students for a day or a week and asked them to submit their work.
+ We prepared videos of the lectures or practical work to show what we know or asked the students to read the book and fill in the exercise book.
+ We used videoconferences to talk and sometimes answer questions.

+ Metaphors of learning: acquisition, exercising, apperception, participation, discovery (Simons & Ruijters, 2008).

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What did we learn?

+ We have autonomy and technology!
+ Traditional methods cannot be transferred to online learning.
+ How to measure learning outcomes?
+ How to personalise learning?
+ Students' potential in a self-regulated learning (Panadero, 2017).
+ Emotions are very important.
+ Effective networking and collaboration is a solution to many challenges.
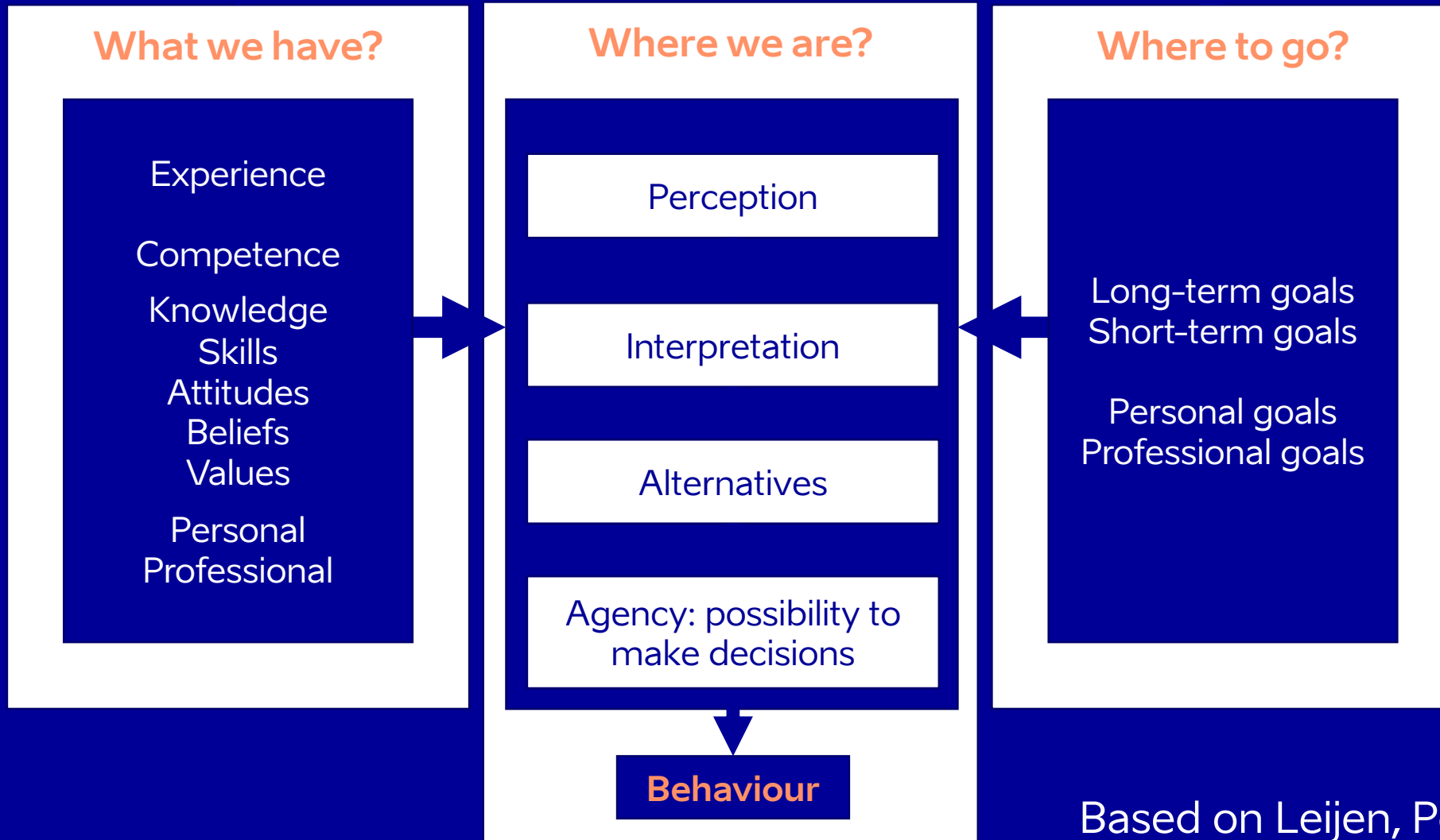
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How it changed the learning?

+ More autonomy and responsibility was given to learners.
+ Learners had to plan, monitor and assess their learning process – focus from cognition to metacognition.
+ Teacher took more the role of a facilitator.
+ Learners found how to benefit from collaboration (e.g. Knowledge Forum).
+ Infrastructure became very important – limited number of different tools, networking.

How should technology enhance learning?

+ Online materials – just a repository? Collaboration? Content creation?
+ Video – only a video call? But collaboration?
+ Personalisation? Learning analytics and educational data mining
+ Visible learning – from "secret" learner model to "open learner model"
+ SRL approach – focus on four areas: cognition, metacognition, motivation, emotions (Hooshyar et al., 2020)

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How to frame the future?

What we have?

Experience

Competence

Knowledge
Skills
Attitudes
Beliefs
Values

Personal
Professional

Where we are?

Perception

Interpretation

Alternatives

Agency: possibility to make decisions

Behaviour

Where to go?

Long-term goals
Short-term goals

Personal goals
Professional goals

Based on Leijen, Pedaste, & Lepp, 2020

What should be the next steps?

+ Goals - personalisation, support on SRL (cognition, metacognition, motivation, emotions), structural support (infrastructure, regulations), motivation support (autonomy, relatedness, perceived competence), use of OLMs

+ Experience - culture of trials (it's OK to fail).

+ Competence - Internet is a space of knowledge, competence is knowledge in action (attitudes, beliefs, skills ... agency).

+ Situation - culture of sharing, culture of collaboration, culture of trust and responsibility, culture of seeking for positive solutions, culture of enhancing positive emotions.

Aitäh!

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For more information about Estonian education best practices and
solutions visit www.educationnation.ee

References

+ Hooshyar, D., Pedaste, M., Saks, K., Leijen, Ä., Bardone, E., & Wang, M. (2020). Open learner models in supporting self-regulated learning in higher education: A systematic literature review. *Computers & Education, 154*(103878), 1-19. DOI: 10.1016/j.compedu.2020.103878

+ Leijen, Ä., Pedaste, M., & Lepp, L. (2020). Teacher agency following the ecological model: How it is achieved and how it could be strengthened by different types of reflection. *British Journal of Educational Studies, 68*(3), 295-310. DOI: 10.1080/00071005.2019.1672855

+ Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in psychology, 8*(422), 1-28. DOI: 10.3389/fpsyg.2017.00422

+ Simons, P. R. J., & Ruijters, M. C. (2008). Varieties of work related learning. *International Journal of Educational Research, 47*(4), 241-251. DOI: 10.1016/j.ijer.2008.07.001