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What does research tell us about flexible education?

Findings from a literature review



Background

- The Norwegian government's strategy for competence improvement stresses
 - that employees' competence is crucial for competitiveness of the economy and employment in the future.
- The strategy highlights that the increased rate of change in working life might create a need for lifelong learning.
- In addition, the Covid-19 pandemic already has and will have significant consequences for societies and working life, with a further need for flexible learning.



A literature review on flexible learning

- Skills Norway commissioned a literature review on flexible learning to strengthen the evidence in the field.
- The review draws on the definition of flexible learning as provided by Skills Norway
 - putting the learner in the center providing several alternatives for learning and education to the learner.
 - Dimensions or criteria of flexibility are related to time, place, scope, progression, assessment, interaction and content

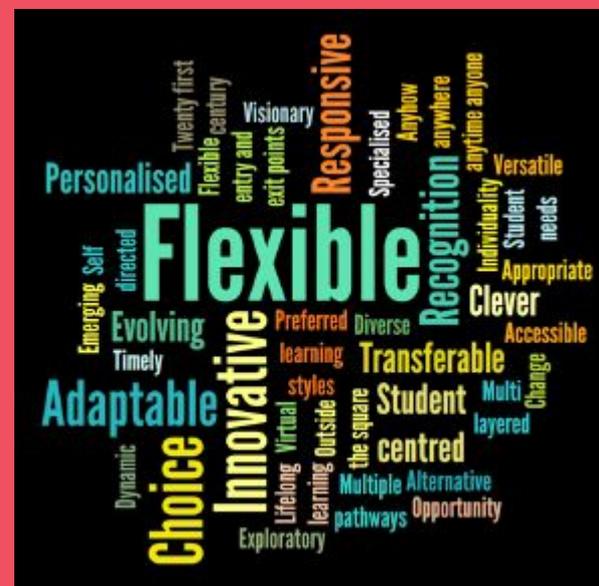


Aim

- To provide a systematic review of newer research on flexible learning for adults in all parts of education.

- The review addresses two research questions:
 1. What can lead to flexibility in education?

 1. What might flexibility in education result to or add to (outcome)?



Main findings – Definitions of flexible education



Data

● 29 studies

- published between 2010 and 2020 (except two). Among the remaining 27 studies, 3 were published in 2015, 4 in 2016, 4 in 2017, 3 in 2018, 11 in 2019 and 2 in 2020.
- Conducted in Australia (3), England/ UK (6), Italy (1), Korea (1), Netherlands (2), Norway (6), Spain (2), Sweden (1), Germany (4) and the US (4).

● 18 (systematic) reviews

- dealing with flexible education (2), e-learning (4), flipped classroom (5), blended learning (2), MOOC and working life (2), webbased learning (1) individualized learning (1), social media in professional development (1).



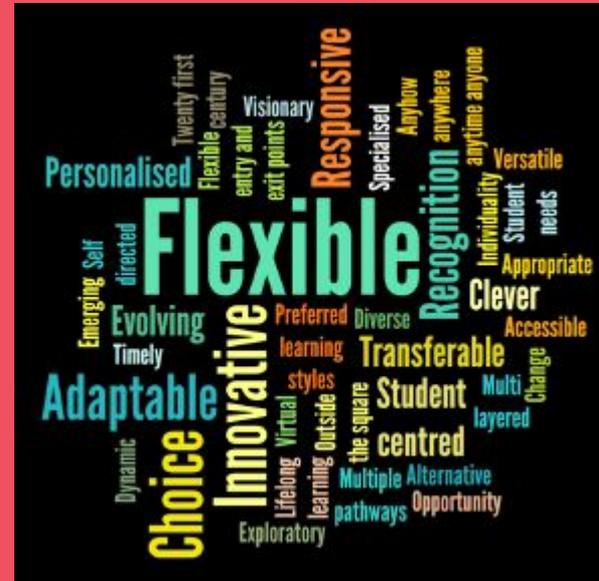
Definitions of *flexible education*

- General and unambiguous definition is lacking.
- Flexible learning: often used synonymously with related terms such as,
 - open learning, distance education, flipped classroom, blended learning and e-learning or web-based learning.
- Even though these concepts are related, flexible learning differs in terms of degree in flexibility.
- Two core aspects of flexible learning: individual choice and malleability/ plasticity, initiated along one or several dimensions.
 - Putting the learner in the center



Further development of the concept *flexible education*

- The concept of flexibility in learning can
 - include one or several dimensions, and
 - be applied to different combinations of learning contexts and student groups.
- This might lead to difficulties in developing a clear definition.
- Thus, a general definition of flexible education should comprise
 - individual freedom of choice and
 - malleability/ plasticity with respect to at least one dimension.



Main findings - Flexible education: dimensions and outcomes



Most studies on flexibility in time, place and content

- A clear overlap with related concepts, which include innovative solutions, mainly related to time, place and digital content.
- These concepts do not necessarily imply free choice and malleability for the individual learner.
 - Pure web-based studies e.g., are not flexible in place. Students cannot choose lectures on campus or other non-digital alternatives for education.
 - some studies dealing with assessment and formalization, (administrative and subject-specific support) and resources with respect to flexible learning, preferably addressing students' learning strategies.



Time and progression

- We identified studies addressing different groups of students, e.g.,
 - students with specific needs and
 - adult students combining studies with work and private life.
- Flexibility appears to work only under certain conditions.
 - Self-regulation skills appear to be important in a flexible education context, but
 - vary between different student groups.



Place and interaction

- Several studies conceptualized place and interaction both physically and digitally.
- Several reviews dealt with technology-based education addressing in particularly health workers.
- Digitalization of education appears to be seen from a distribution perspective,
 - which can lead to higher accessibility to education, in particularly for students from rural places or these with specific needs.



Content and design

- Studies including discussions on learning material, theoretical or practical orientation of courses or the chronology of course sequences.
- Examples of flexible content for different subjects across studies.



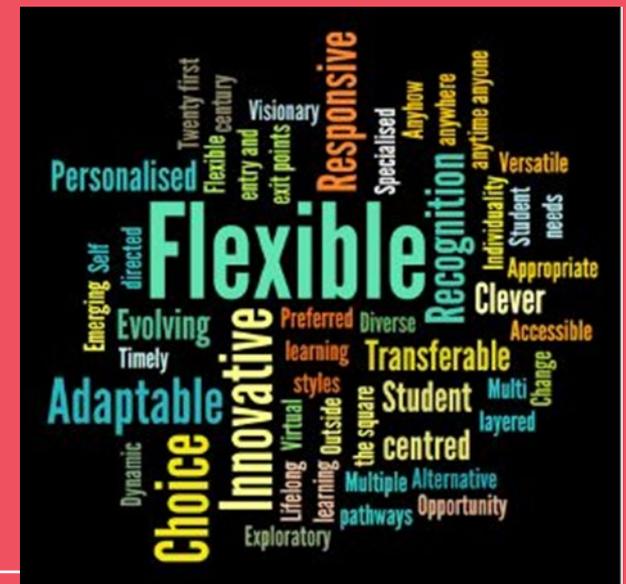
Knowledge gap





Flexibility in assessment, formalization and support

- Few studies on assessment and formalization, such as formalization related to entrance requirements or formative and summative assessment.
- One review identified 6 components for assessment and formalization:
 - date of exam and assignment; form of assessment; standard of assessment; requirement for assignment; type of assignment; significance of assignment and exam.
- Other studies referred to the significance of curriculum flexibility and program design for learning.
- Several studies on flexibility regarding administrative and support functions.
 - The teacher's attitude to flexibility appears to be important in supporting students' learning strategies and how students derive advantages of flexible education.



Main conclusion and implications



Flexible education requires self-regulation

- Flexible education can provide advantages for adult students by providing more choices for learning.
- At the same time, research highlights the importance of a customized design and a supportive learning environment.
- Positive effects on different outcomes, related to self-regulated learning.
- Finally, flexibility in education might have different meanings for different groups of students, dependent on needs and skills.



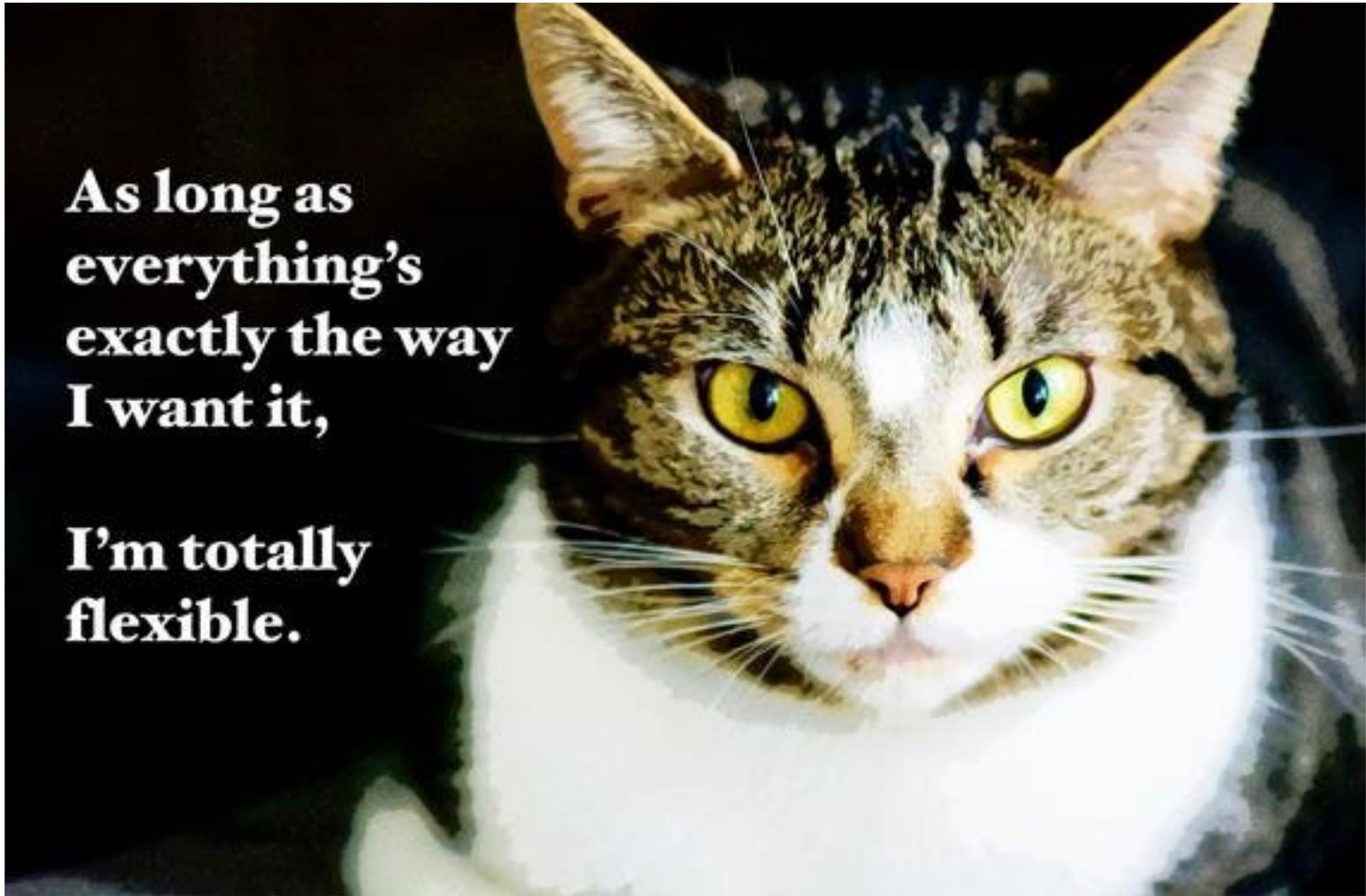
Implications for further research

- A need for more research on the balance between flexibility and mentoring and support, to facilitate learning outcomes.
- Lack of knowledge on the teacher's subject knowledge and competencies for students' learning outcomes.
- Further research might investigate teachers' competencies and teacher's role in a flexible education program.

Method: Rapid-review approach

- The rapid-review method is informed by the systematic review method, but with certain limitations.
- These limitations apply to all stages of a systematic review,
 - from the literature research, selection of studies, assessment of studies and synthesis.
- The format is under continuous development and this type of review is increasingly used in policy making.

**As long as
everything's
exactly the way
I want it,
I'm totally
flexible.**



Thank you for your attention!

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Rapport
2020:29

Fleksibel opplæring for voksne

En kunnskapsoppsummering

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