<table>
<thead>
<tr>
<th>Problem statement</th>
<th>Theory</th>
<th>RQ &amp; Methodology</th>
<th>Results</th>
<th>Conclusion &amp; follow-up</th>
</tr>
</thead>
</table>

**Blended learning environments**

- Needed to be able to (re)educate adults
  - customize the learning process
  - importance of self-regulation
- Limited teacher – learner time
  - less time to know each other
Critical variable to succeed (e.g. Kirmizi, 2015)
- Relates to performances (e.g. Broadbent & Poon, 2015)
- blended or face-to-face (e.g. Kim, 2012)
**Problem statement**

**Theory**

**RQ & Methodology**

**Results**

**Conclusion & follow-up**

---

**Areas:**
- Cognition
- Behavior
- Context
- Motivation

**Activation phase**

**Monitoring phase**

**Regulation phase**

**Reflection phase**

---

**Using (meta)cognitive strategies = higher performance** (Pintrich, 1989)

**Elaboration, organization and metacognition = important for blended learning success** (Broadbent, 2017)

**Motivation strategies: no direct influence on performance** (Smit, de Brabander, Boekaerts & Martens, 2017) but mediated through learners’ effort (Schwinger & Otterpohl, 2017)

---

**Time & effort management = positively influencing grade** (Broadbent, 2017)

**Seeking help (using behavior strategies) = higher achievement** (Sun, Xie & Anderman, 2018)
What **cognitive** regulation strategies do adult learners in blended environments apply?

What **behavior** regulation strategies do adult learners in blended environments apply?

What **context** regulation strategies do adult learners in blended environments apply?

What **motivation** regulation strategies do adult learners in blended environments apply?

**Semi-structured interviews** (N = 16)

**Thematic analysis**

Preliminary results n=9
**Activation**
- Target goal setting
- Activation prior knowledge

**Monitoring**
- Judgement of learning (metacognitive awareness)

**Regulation**
- Rehearsal
- Elaboration
- Organization
- Critical thinking

**Reflection**
- Metacognition
- Cognitive judgements
- Attribution

- Self-evaluation
- Statements about knowledge level
- Regarding blended learning

- Summarizing
- Marking
- Underlining
- Using interleaves
- ...
<table>
<thead>
<tr>
<th>Activation</th>
<th>Monitoring</th>
<th>Regulation</th>
<th>Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort planning</td>
<td>Time planning</td>
<td>Help-seeking</td>
<td>Persist / give up</td>
</tr>
<tr>
<td></td>
<td>Awareness and monitoring behavior</td>
<td>Time regulation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Effort regulation</td>
<td></td>
</tr>
</tbody>
</table>

Mentioned a lot
<table>
<thead>
<tr>
<th>Activation</th>
<th>Monitoring</th>
<th>Regulation</th>
<th>Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception task</td>
<td>Awareness task</td>
<td>Environment management</td>
<td>Evaluation task</td>
</tr>
<tr>
<td>or context</td>
<td>or context</td>
<td>Peer-learning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Limited to statement about if the task is clear or not**

- Teacher
- Task

- Place
- Distractions
- ...

**CON TEXT MATTERS**
### Problem statement

Mostly interest and personal value
- Mastery oriented
- Performance oriented

### Theory

- Judgement of competence, interest, value
- Goal orientation adoption
- Awareness of competence, interest, value
- Staying performance oriented
- Staying mastery oriented
- Positive self-talk
- Ability self-talk
- Self-handicapping
- Personal enhancement
- I just have to
- Other

### Reaction and reflection on motivation

- extra, not mandatory exercises
- An involved teacher
- ...
Use of one strategy influences other strategies

Some strategies are alike, happen at the same time or complement each other

**Self-regulation is a complex process**

Some strategies are not mentioned:
- Not aware (happens automatically)
- Not able to articulate
- Timing and design of the research
Adult learners’ strategies:

I do not use a lot of motivation regulation strategies

I print out my syllabus and use organisation and rehearsal strategies (Broadbent, 2017).

I only think about attributions for low scores

I plan my time and effort beforehand but I am flexible if necessary.

I don’t want to much online moments (Owston, 2018)

I would love some more peer-learning.

I mostly seek help on the internet (Broadbent, 2017).
How can we use this information to support adult learners or what future studies are needed to get concrete information for teachers on how to support their learners?

How can we teach adult learners in blended environments to regulate their learning both in face-to-face or distance moments?