



Mapping students' learning paths using a game

Monitoring long-term student progress: learning progressions and formative assessment

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Wageningen University

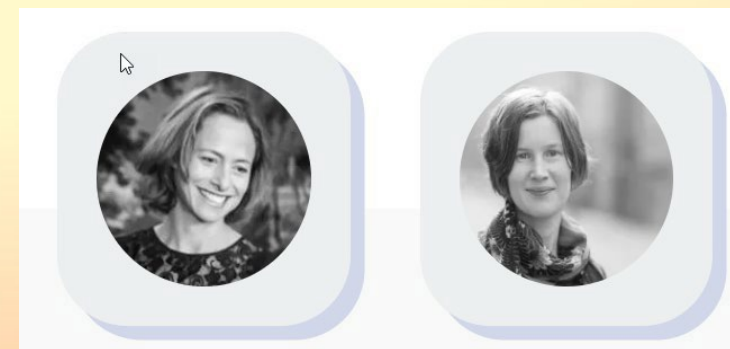
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Cyclus Formatief Evalueren



Wetenschappelijke
onderbouwing



Leernetwerk
**formatief
evalueren**

In de praktijk:
PO/VO



Kennispunt **MBO**
Onderwijs & Examinering

In de praktijk:
MBO



AAN DE SLAG MET **FORMATIEF TOETSEN**

 Leren van toetsen

In de praktijk:
HO

Learning goals: after this session.....

- Have you gained insight into what a “learning progression” is, how you can develop it, and what it can bring to you
- Have you identified how formative assessment can help to identify students’ development on the learning progression
- Have you made a first set up of your learning progression, with hurdles, houses and curriculum reflection - and a FE-cycle connected to it – for your own education.



ZICHT *op*
Studentontwikkeling

Overview of this workshop

- Why this research?
- Short introduction learning progressions & lessons learned
- Activity 1: learning progressions poster
- Short introduction about formative assessment & lessons learned
- Activity 2: connecting formative assessment to the learning progression

Why this research?



- VET: barriers between formative and summative
- HE: developments towards programmatic assessment
- Teachers: formative assessment within one lesson
- Sequence of assignments for uptake of feedback

=> Focus? What are the (long-term) learning goals our students work towards?

Learning
progression

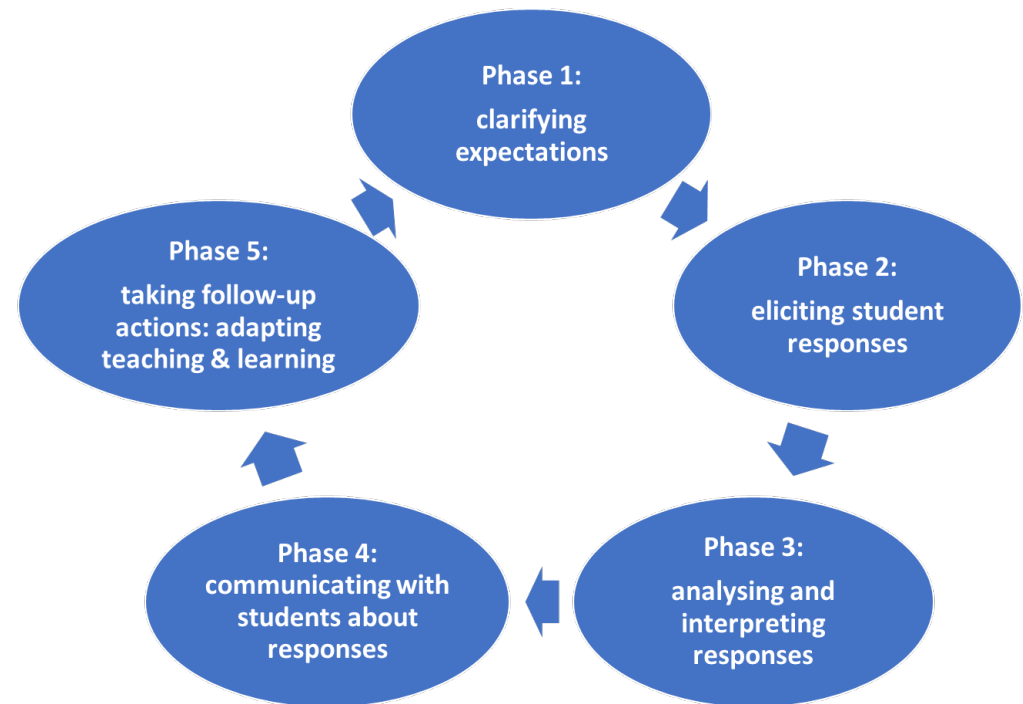
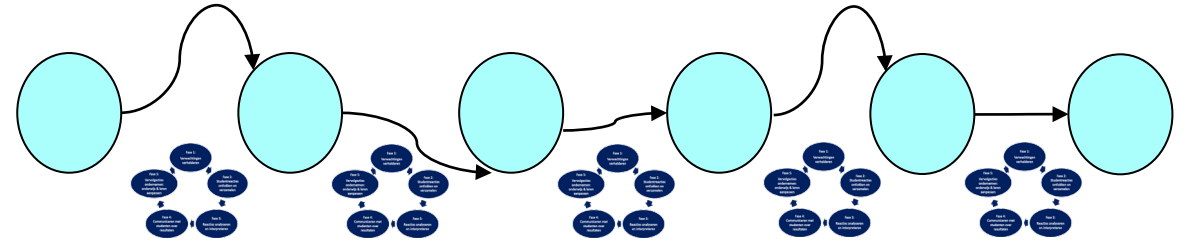


What is our “backbone”? What does student development on this backbone look like?

How can formative assessment help to monitor progress (and enable uptake of feedback)?



Formative assessment
activities

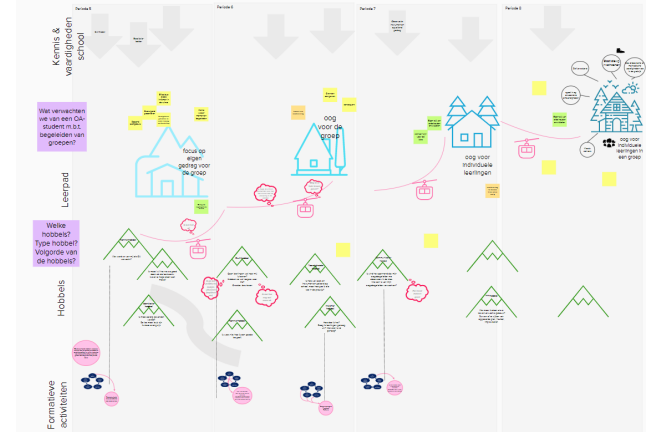


Research questions

- What (professional development) activities help teachers to develop a learning progression?
- What (professional development) activities help teachers to develop goal-directed formative assessment activities?

The learning progression

- Known from science / math ed (K12)
- Based on “the big ideas” van het profession
- Showing “regular” development in students’ thinking, doing and reasoning
- Start and endpoint
- Different approaches to develop a LP
 - theory
 - from experience: persona’s/input/work of students
 - mix
- Misconceptions/hurdles
- Short and long term LP



For the VET/HE domains no LP available

Baartman & Gulikers (2021). *Zichtop studentontwikkeling. Profiel*, 7, 20-24
Gotwals, A. W. (2018). *Where are we now? Learning progressions and formative assessment. Applied measurement in Education*, 31(2), 157-164.

Examples

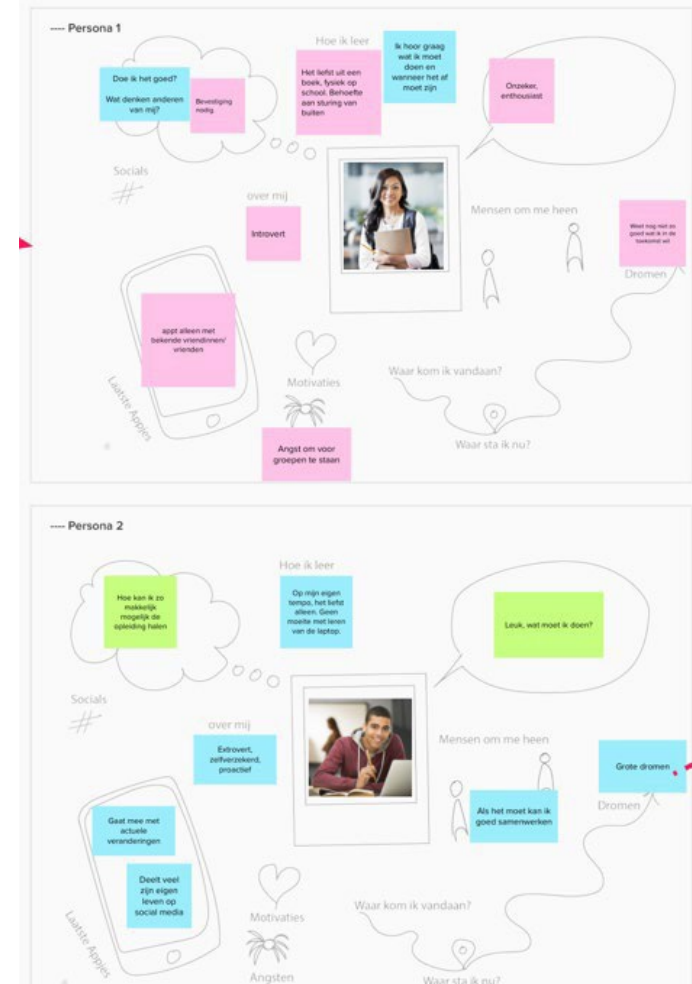
- You can manage the classroom and guide the learning process (teaching assistant)
- You can conduct a customer interview with different kinds of customers (hospitality)
- You can identify the support need of a client (nursing)

Check

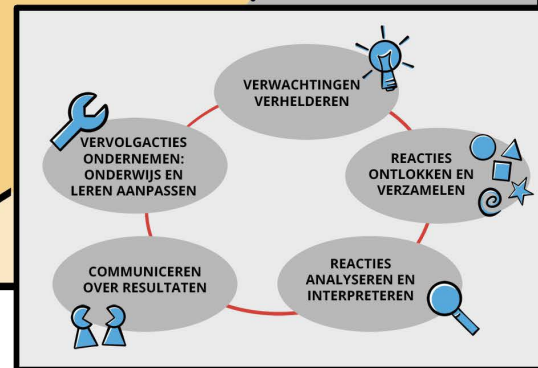
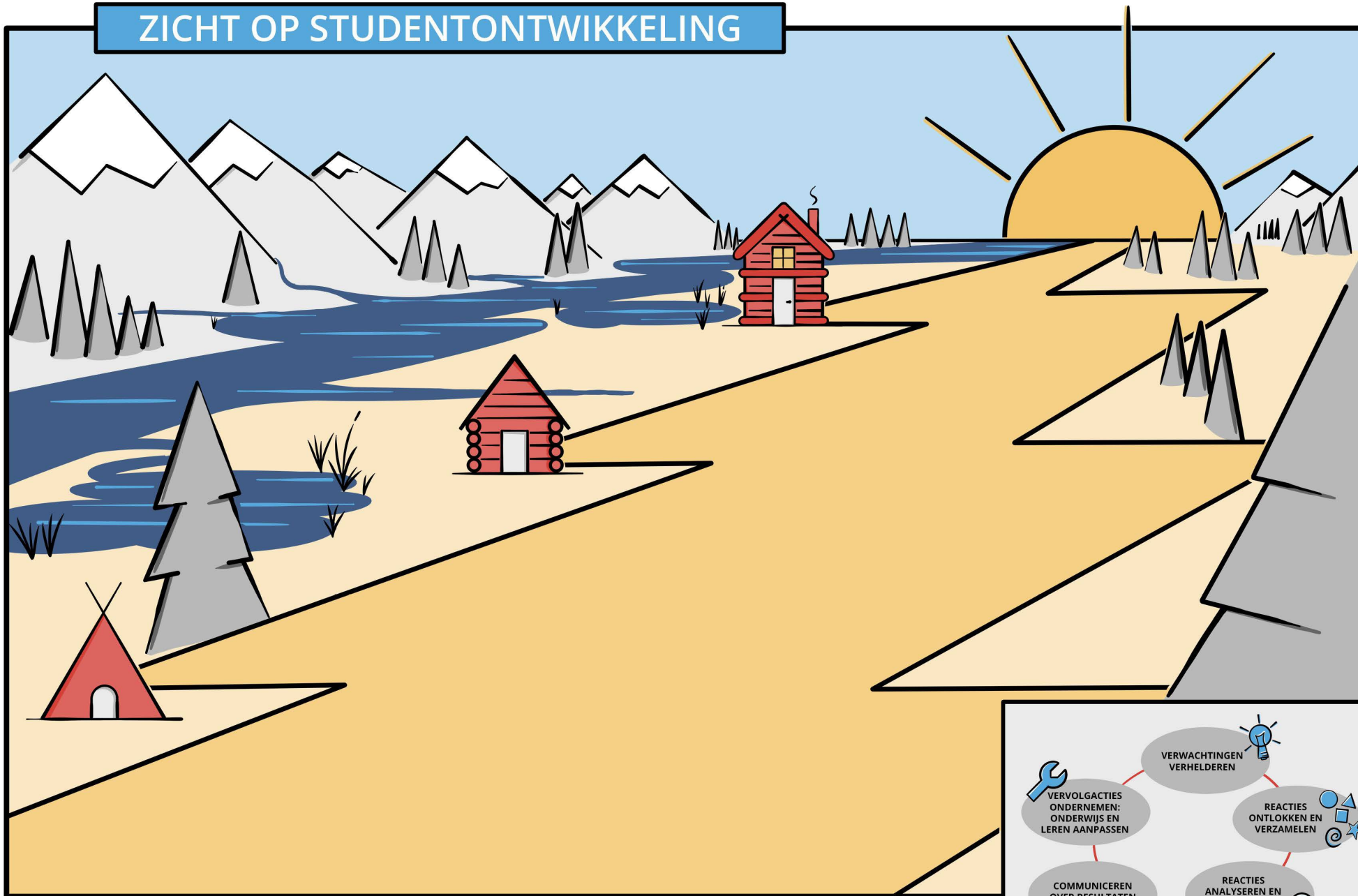
- Core of the profession
- Cross curricular
- Something in which a student grows considerably → revisited in the curriculum
- Multiple aspects making this difficult (hurdles, misconceptions)

Lessons learned on LP development

- Finding a focus!
- **Professional** development
- Visualising is key
- Not course driven
- **Taking the student perspective** is key
 - Using personas ('typical kind of students')
 - Interviewing students
 - Developing successcriteria with students
- Identifying hurdles and categorising them

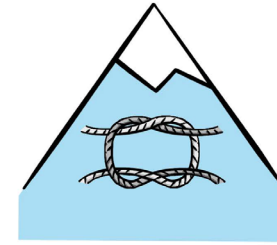


ZICHT OP STUDENTONTWIKKELING

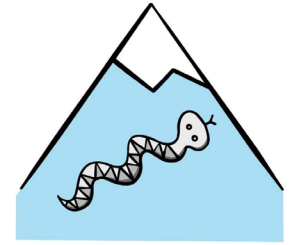


Different hurdles

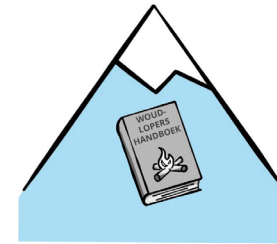
- Skills
- Knowledge
- Identity
- (not) daring something
- Theory-practice



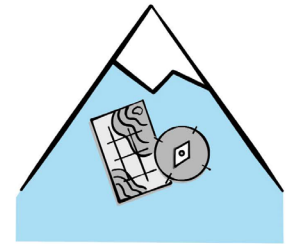
VAARDIGHEIDHOBBEL



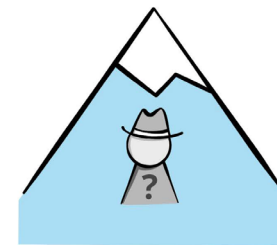
DURFHOBBEL



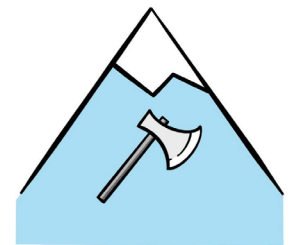
KENNISHOBBEL



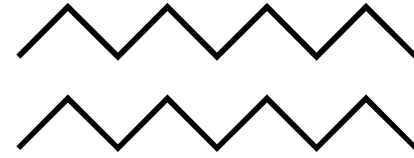
THEORIE-PRAKTIJK
HOBBEL



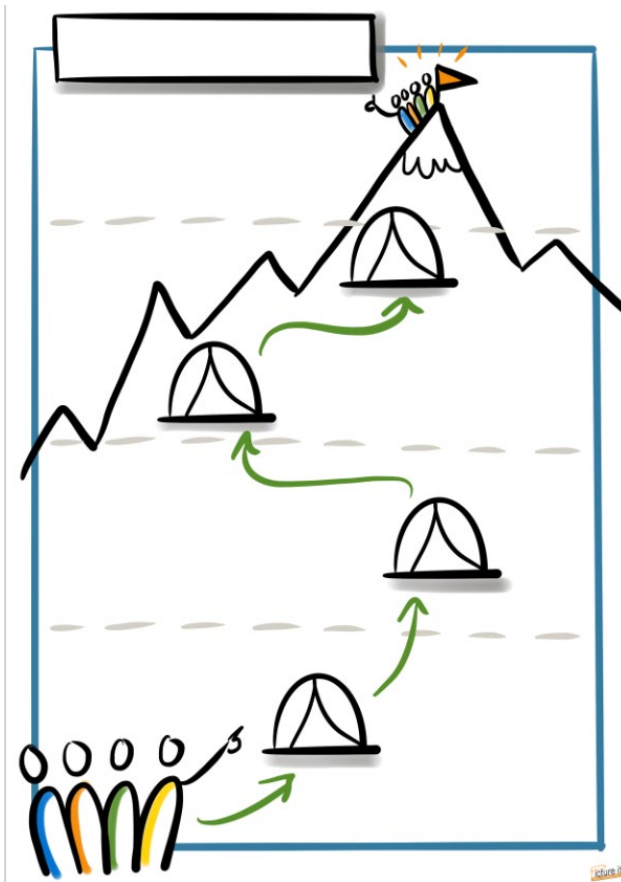
IDENTITEITHOBBEL



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Try this out! Activity 1



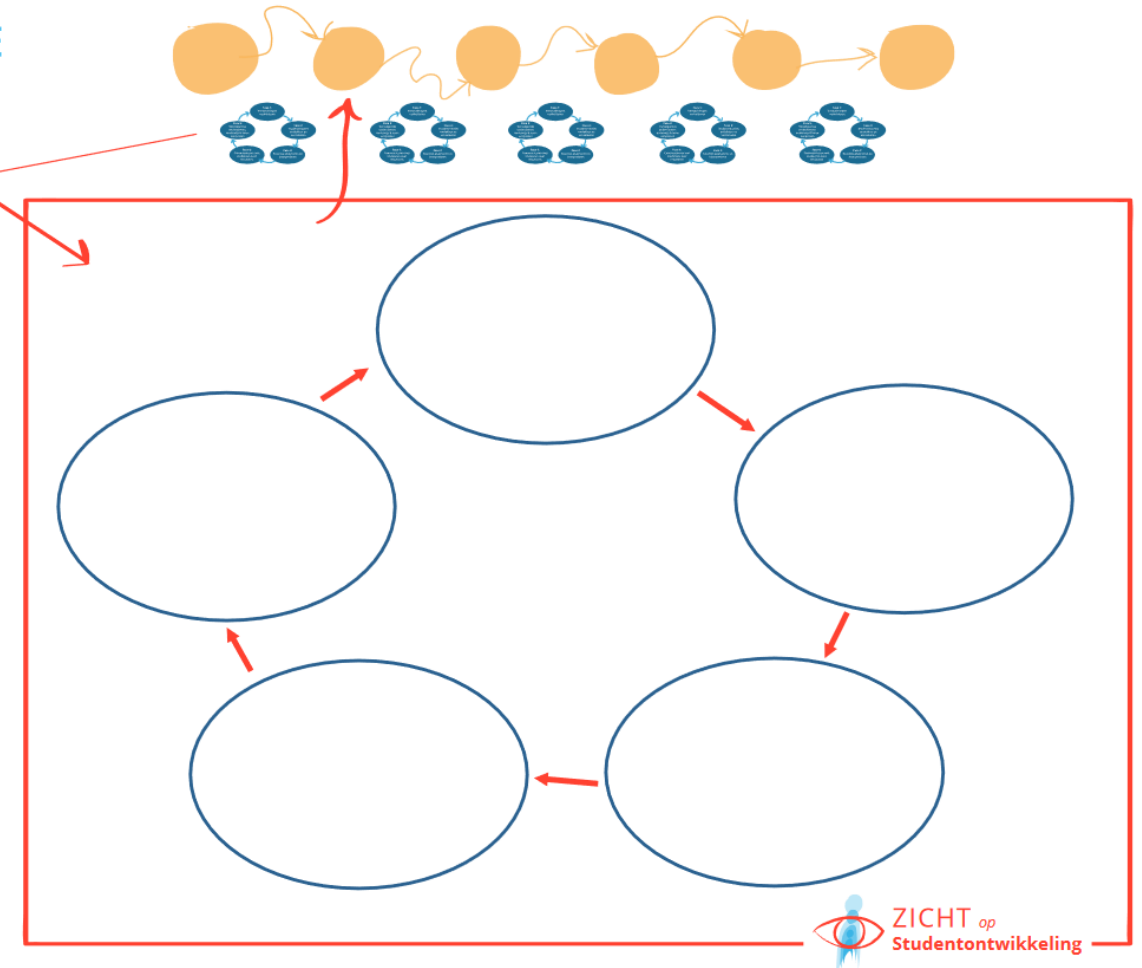
1. Core idea profession. What is the end goal? How do students enter?
2. Take in mind two (different) students. How do they develop? Can you identify milestones (“houses”)? Can you discover some **hurdles** many students encounter?
3. What kind of hurdles? Categorize

Connecting FA to the learning progression

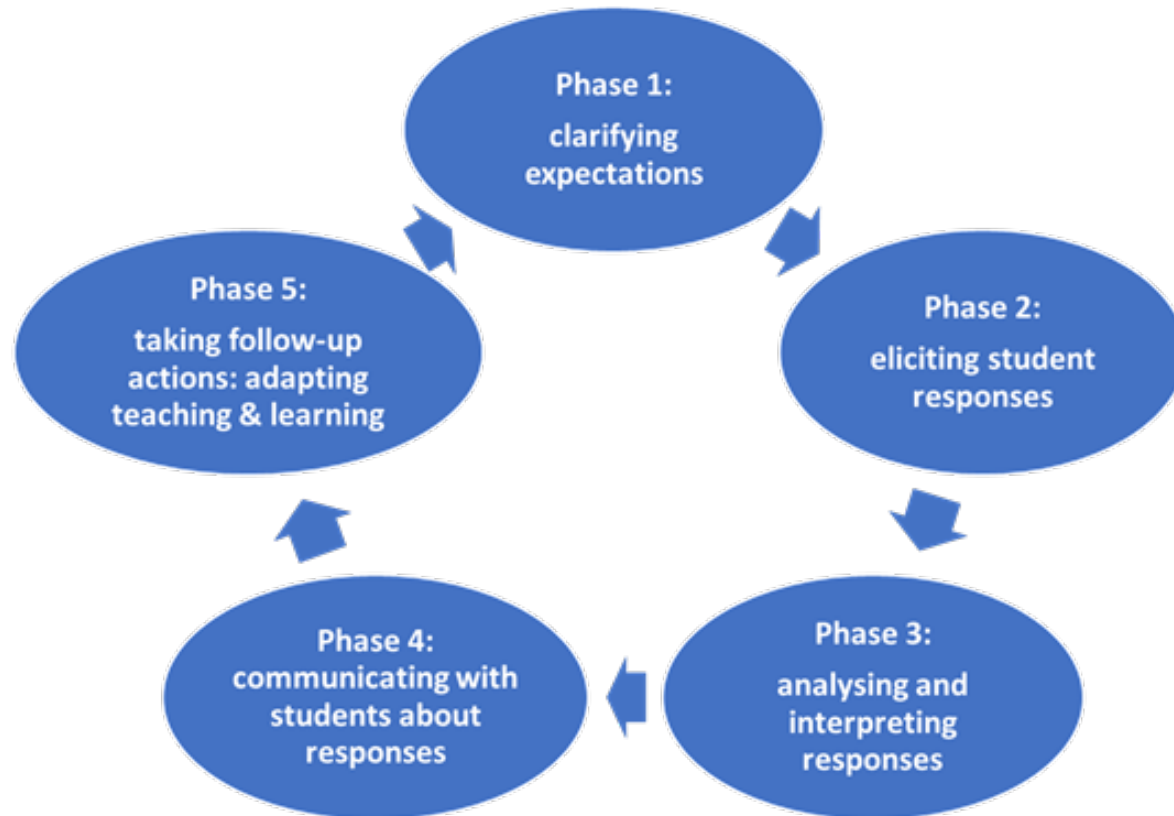
Using goal-directed FA activities to identify progress on the LP

TEMPLATE FE-Cyclus

- Fase 1**
verwachtingen verhelderen
- Fase 2**
leerling reacties ontlokken en verzamelen
- Fase 3**
reacties analyseren en interpreteren
- Fase 4**
communiceren met leerlingen over resultaten
- Fase 5**
vervolgacties ondernemen, onderwijs en leren aanpassen



Formative Assessment



FA-cycle

Process, not an instrument

Planned and on-the-fly

Identifying students' development on the Learning progressions learning goal (and/or hurdles)

(pre) thinking about next steps



Lessons learned in our project

- Importance of learning goals (“what are we aiming for?”)
 - Direct connection to LP or hurdles
- Going further than FA-phase 2 (eliciting). What is the follow-up?
- Zooming in and zooming out:
 - FA makes LP more concrete
 - LP fosters a follow up step in FA
- Identify hurdles and analyse these hurdles
 - Do we address hurdles in our education??
 - If we know these hurdles, how can we prepare for them/differentiation?

Example

Taking the student perspective (interview): A lot of our TA students tend to identify themselves with the teacher at their place of internship

Categorise: Identity hurdle

Critical question:

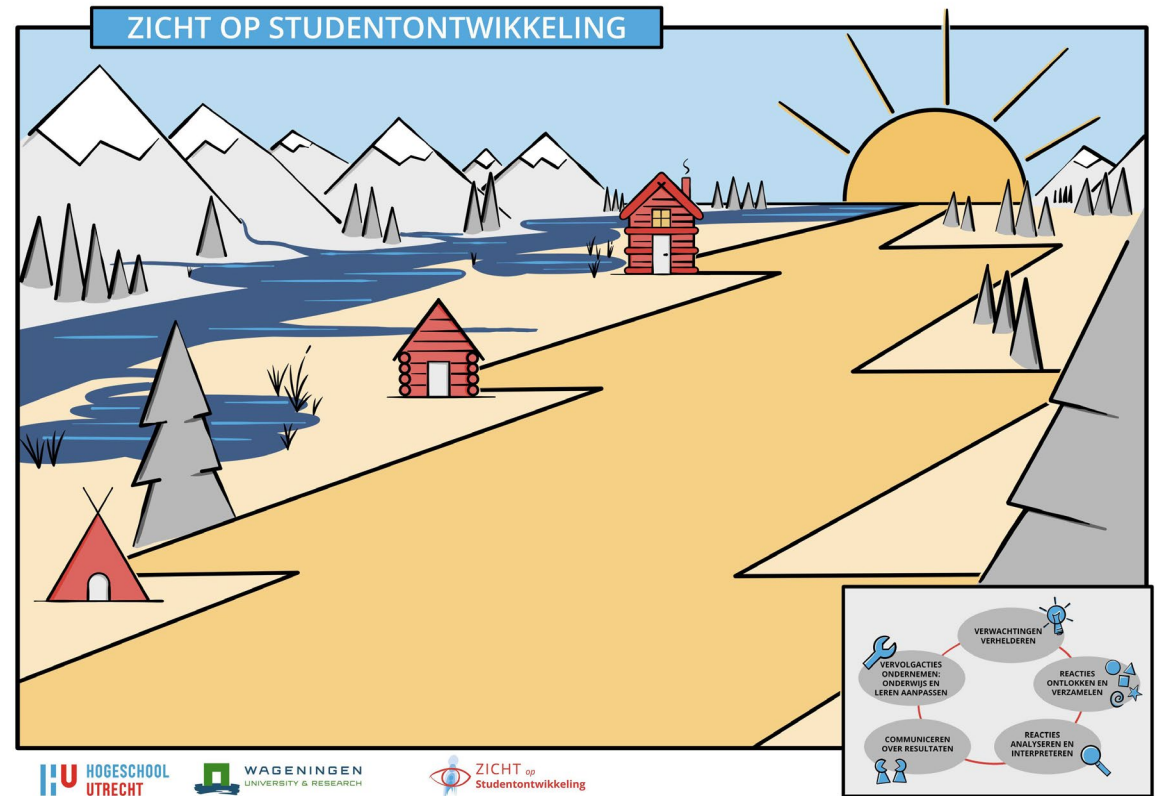
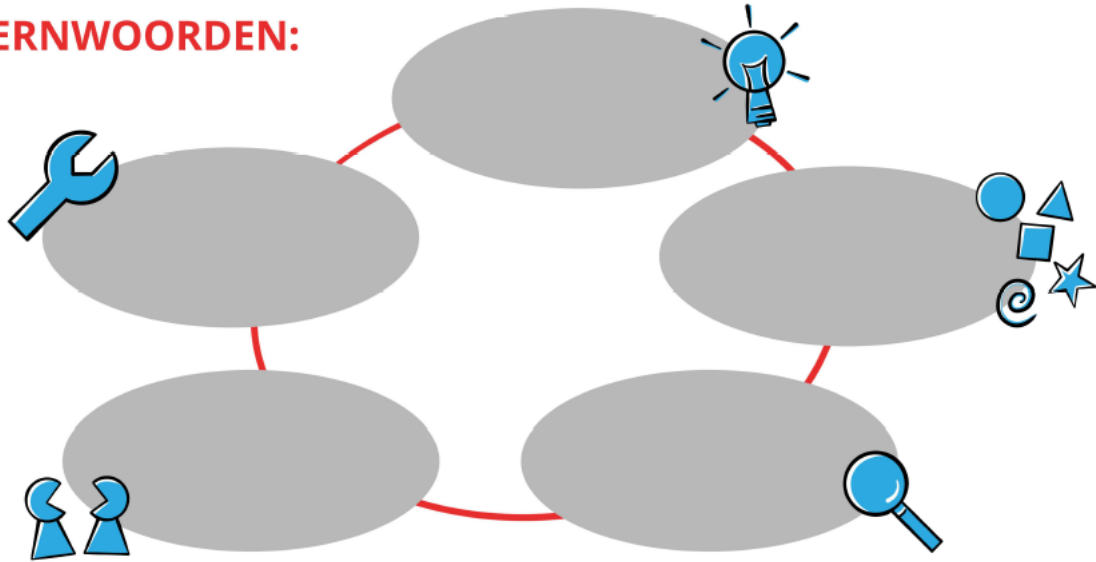
- Do we identify these hurdles in our education?
- Do we address them in our education?

Identity hurdle is not addressed in our education
→ We built in a peer consultation meeting to explicitly address this

SOORT HOBBEL:



KERNWOORDEN:



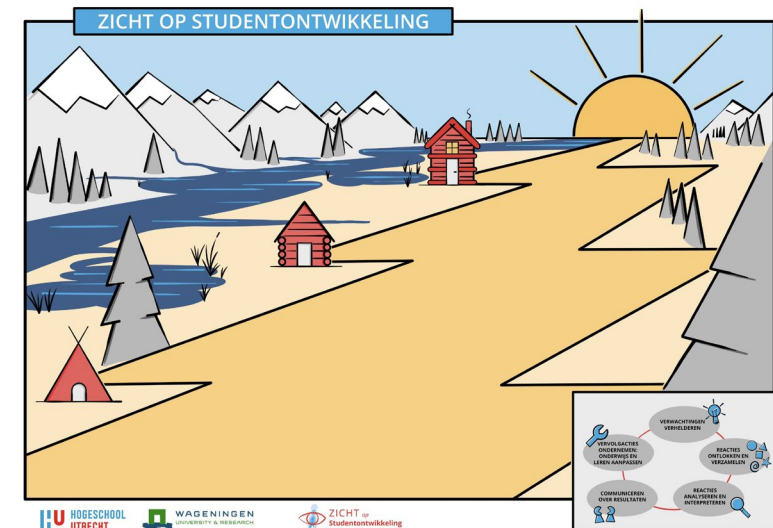
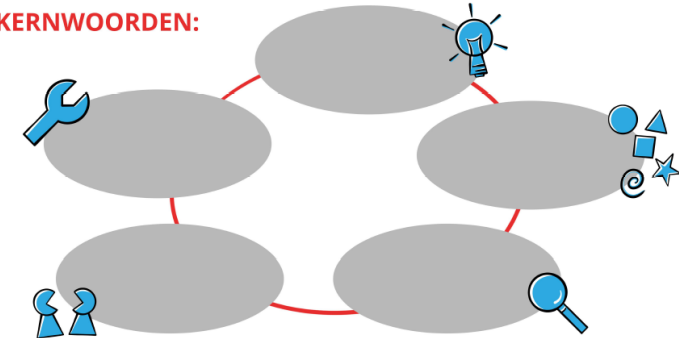
Activity 2

- Choose one your identified hurdles
- How can you discover this hurdle (phase 2/3)?
- How is feedback arranged (phase 4)?
- How can feedback be used? And what do you do (as a teacher) to help students overcome this hurdle (phase 5)?

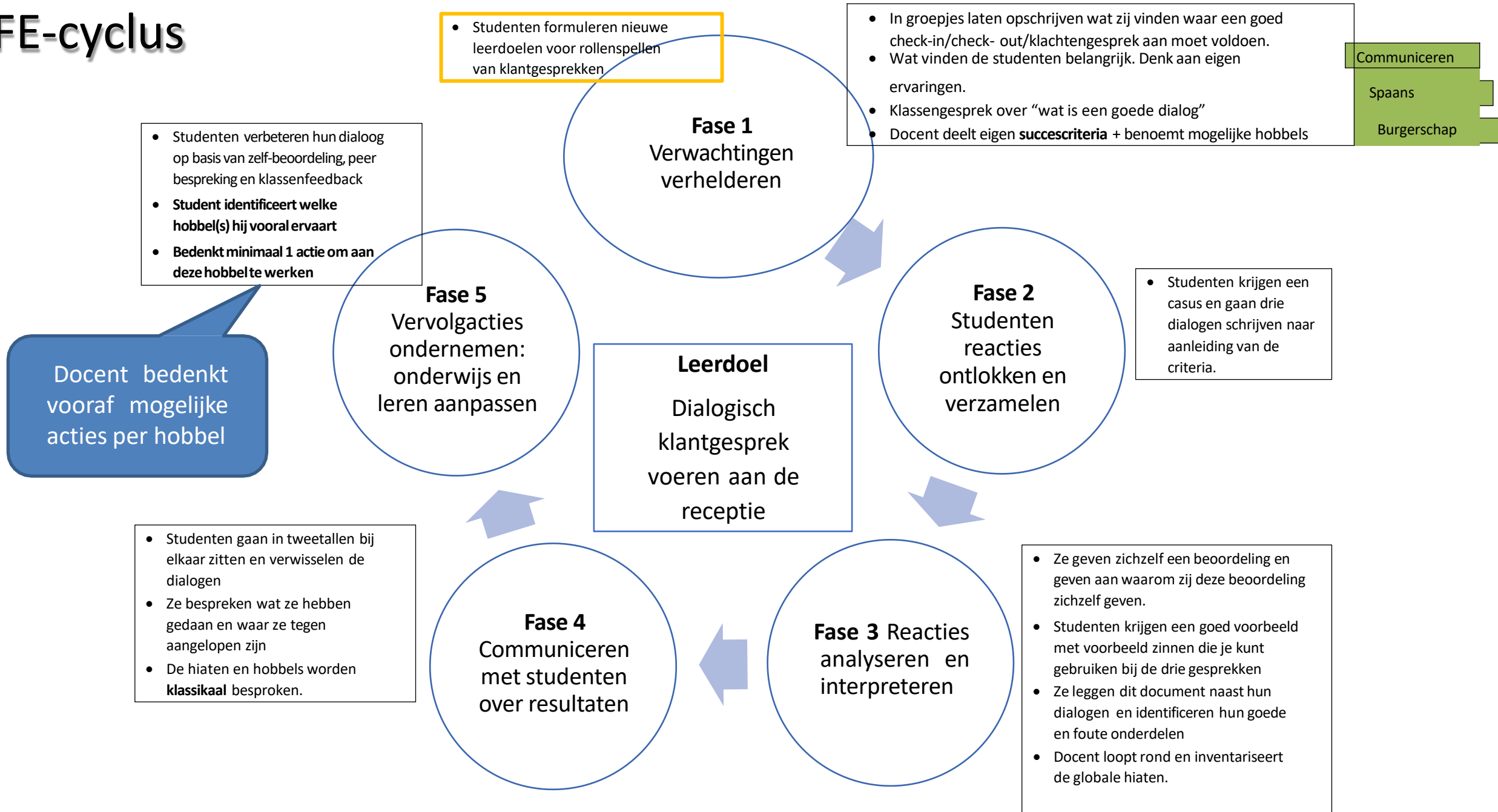
SOORT HOBBEL:



KERNWOORDEN:



FE-cyclus



Thank you!!

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