

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

Liesbeth Baartman

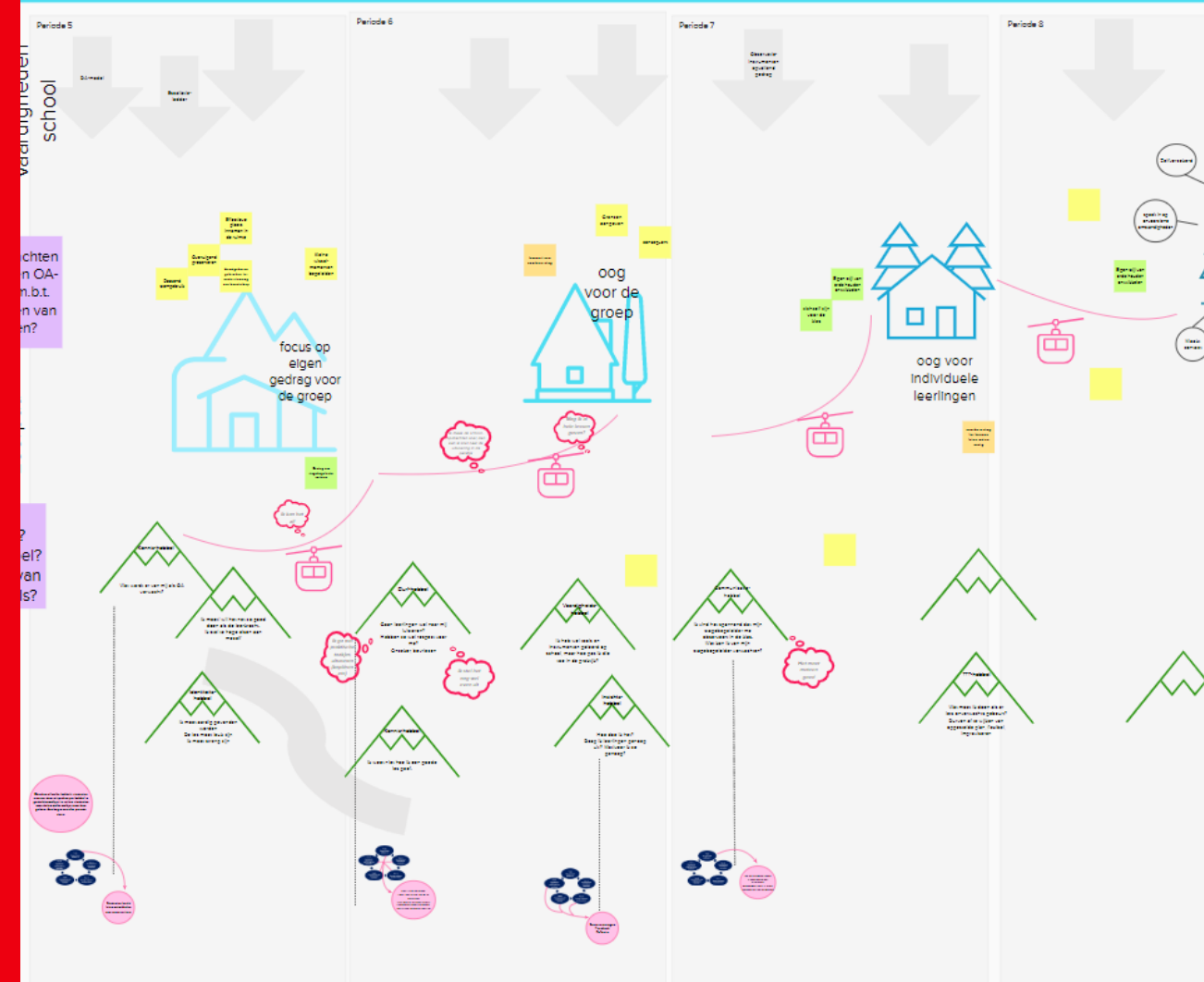
Utrecht University of Applied Sciences

Judith Gulikers

Wageningen University

Funded by: Netherlands Initiative for Education Research
project number 40.5.20500.163

Learning progression Onderwijsassistent
Begeleiden van groepen - jaar 2



Overview of this workshop

- Why this research?
- Short introduction learning progressions
- Method 1: learning progressions poster
- Short introduction about formative assessment
- Method 2: connecting formative assessment activities to the learning progression

Why this research?



- VET: barriers between formative and summative
- 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

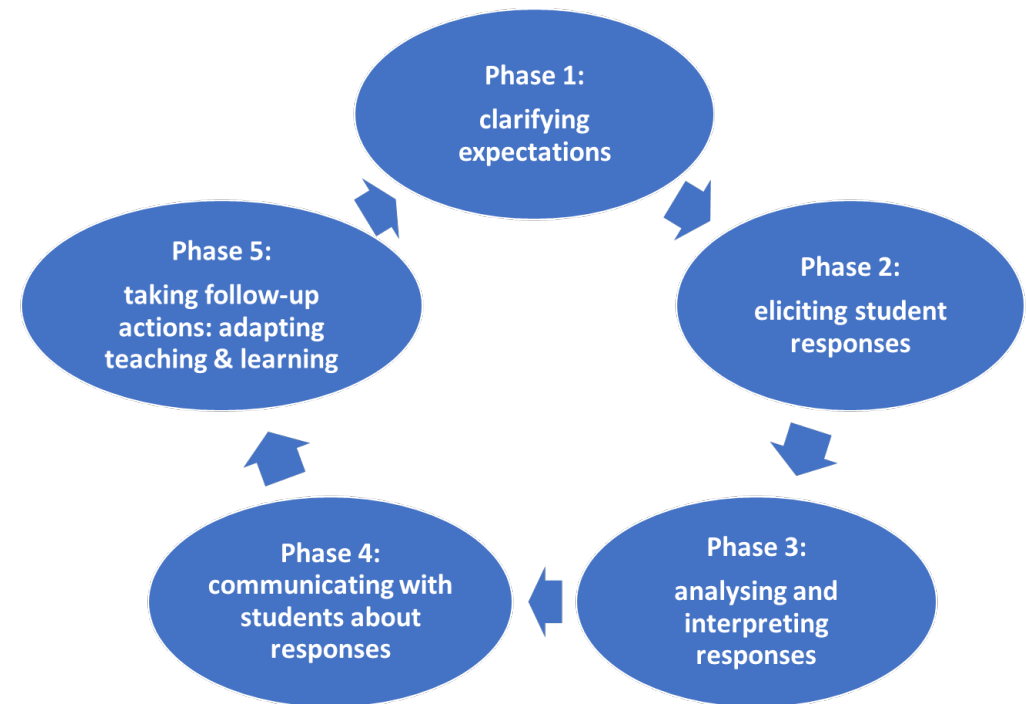
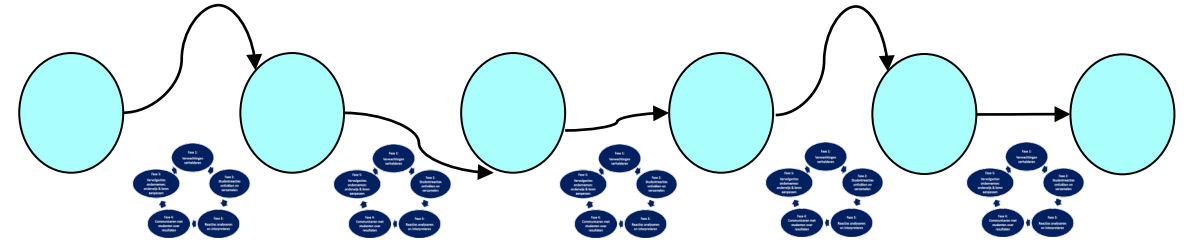


What is our “backbone”? What does student development on this backbone look like?

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?

Participants

4 teacher teams

Vocational education

- Social work
- Nursing
- Teacher assistants
- Travel & hospitality

Activities

5 meetings (1/2 day)

- Focus of the learning progression
- Personas: identify typical students
- Student interviews
- FA activities (phase 1)
- Identify and discuss hurdles
- FA activities (phase 2-3-4-5)

Data collection

Group interviews
(start, midway, end)

Field notes

Video/audio recordings

Logbooks

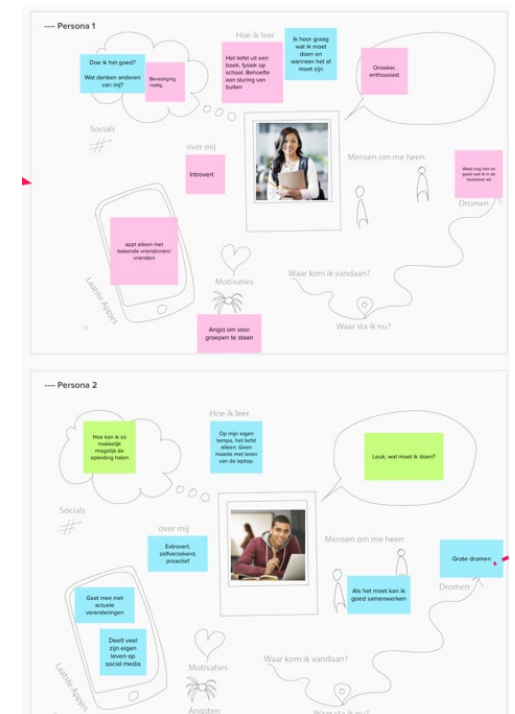
Materials

Data analysis

Thick case descriptions

Cross-case analyses

Focus on activities



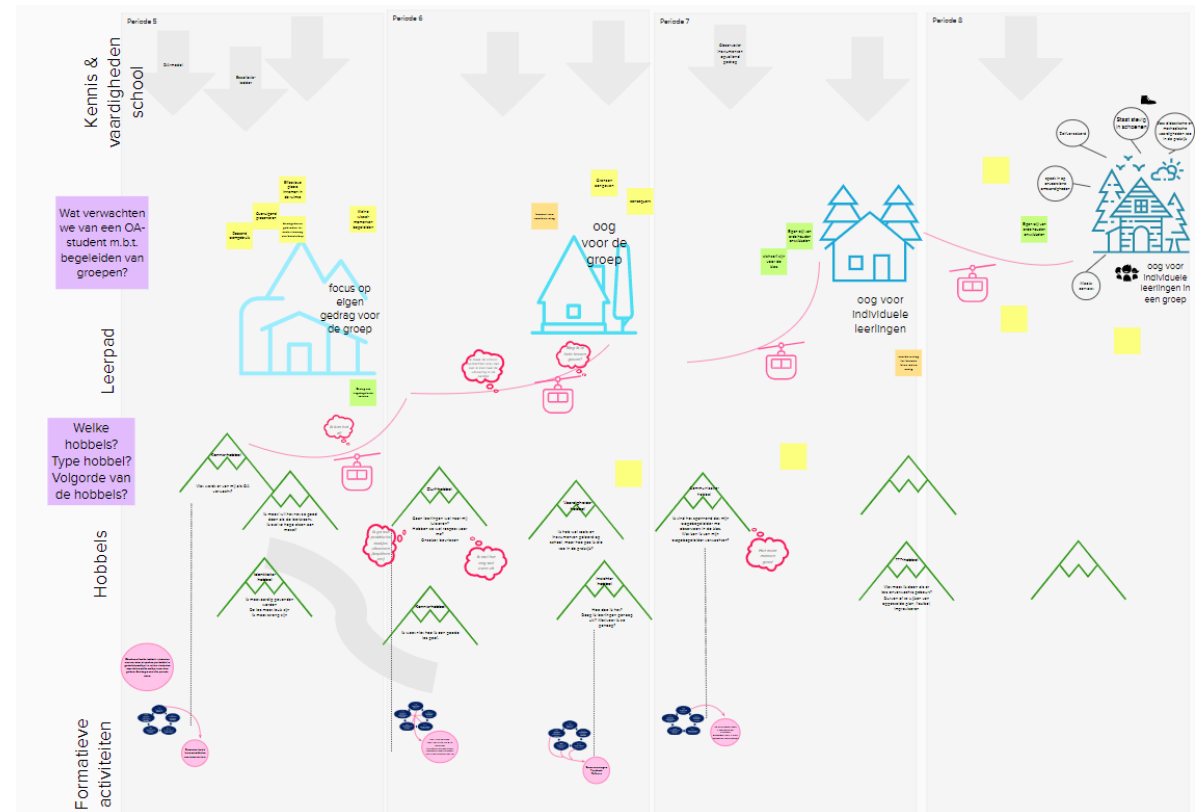
DEVELOPING A LEARNING PROGRESSION

Learning Progressions

- Focus on “big ideas” of a profession
- Entry level – end goals
- How students’ thinking, doing and reasoning increases in sophistication
- Based on students’ actual work
- Misconceptions / struggles
- Short term – long term (granularity)

Mostly for sciences / languages.

Not yet for vocational / professional education



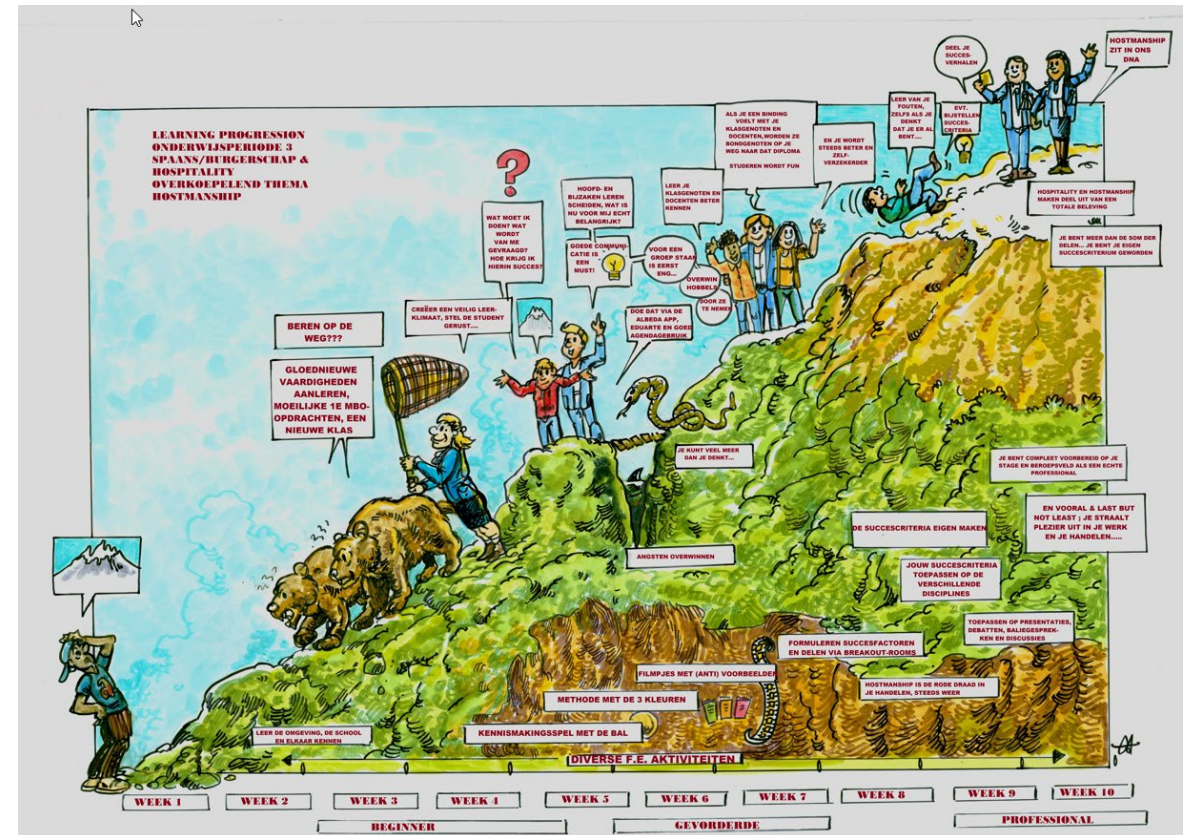
Gotwals, A. W. (2018). *Where are we now? Learning progressions and formative assessment. Applied measurement in Education, 31(2), 157-164.*

Learning Progressions in our project

- Teacher assistant: working with increasingly bigger groups of pupils
- Travel & Hospitality: hostmanship
- Social Work: finding out a client's needs
- Nursing: project skills

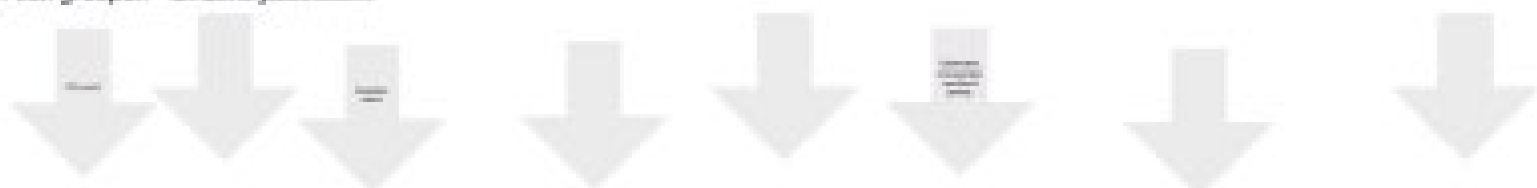
⇒ Focus difficult to determine!

⇒ Beyond separate subjects!



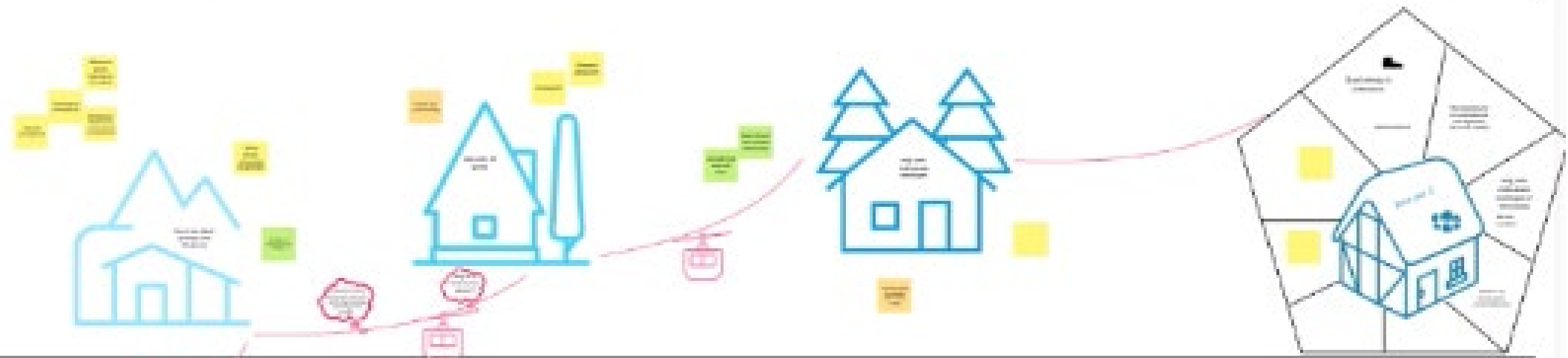
Begeleiden van groepen - Onderwijsassistent

Samen 8.
 (aantal personen)



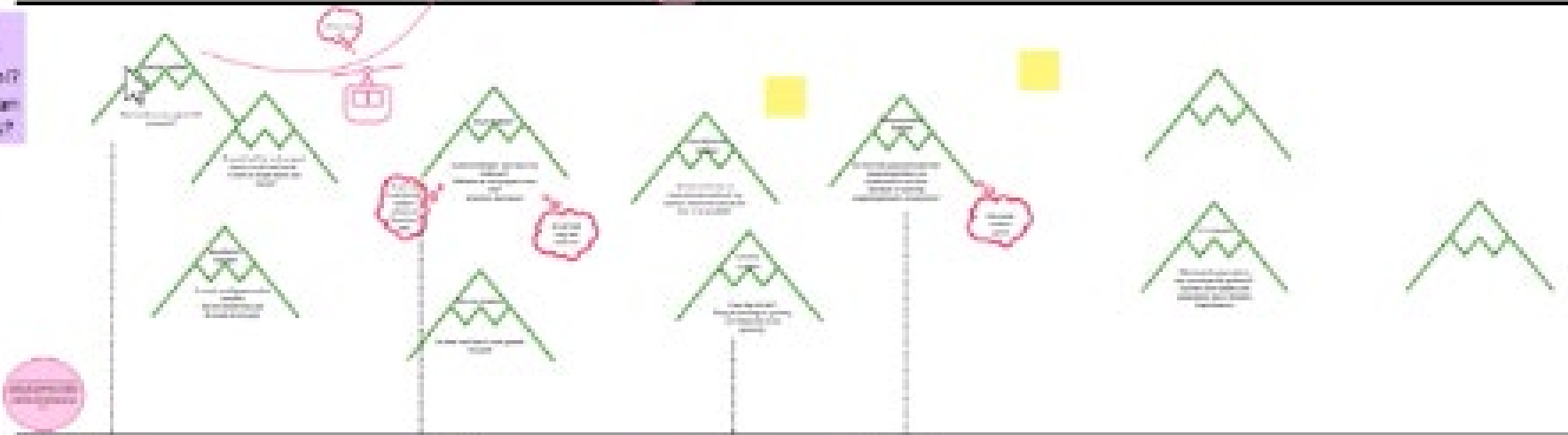
Wat verwachten we van een O&O-student met begeleiding van groepen?

Levensstijl



Welke hobby's?
 Type hobby's?
 Volgende van de hobby's?

Hobby's



Normatieve
 beschrijvingen



Learning Progression: position of the earth in the solar system

| | |
|---|---|
| | a day. |
| 2 | <p>Student recognizes that:</p> <ul style="list-style-type: none"> • the Sun appears to move across the sky every day • the observable shape of the Moon changes every 28 days <p>Student may believe that the Sun moves around the Earth. COMMON ERROR: All motion in the sky is due to the Earth spinning on its axis. COMMON ERROR: The Sun travels around the Earth. COMMON ERROR: It gets dark at night because the Sun goes around the Earth once a day. COMMON ERROR: The Earth is the center of the universe.</p> |
| 1 | <p>Student does not recognize the systematic nature of appearance of objects in the sky. Students may not recognize that the earth is spherical. COMMON ERROR: It gets dark at night because something (e.g., clouds, the atmosphere, “darkness”) covers the Sun. COMMON ERROR: The phases of the Moon are caused by clouds covering the Moon. COMMON ERROR: The Sun goes below the Earth at night.</p> |

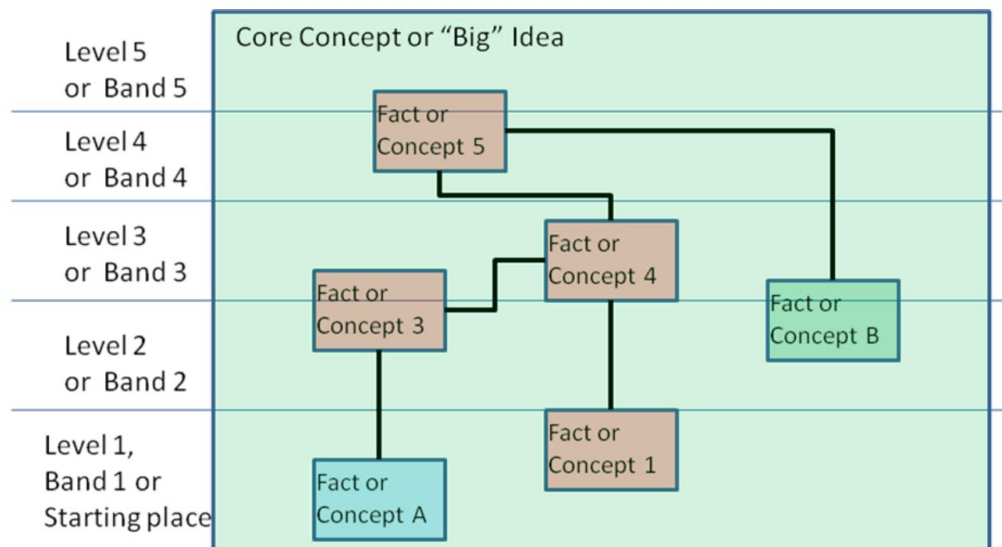


Figure 4. Visual representation of the landscape approach to Learning Progressions.

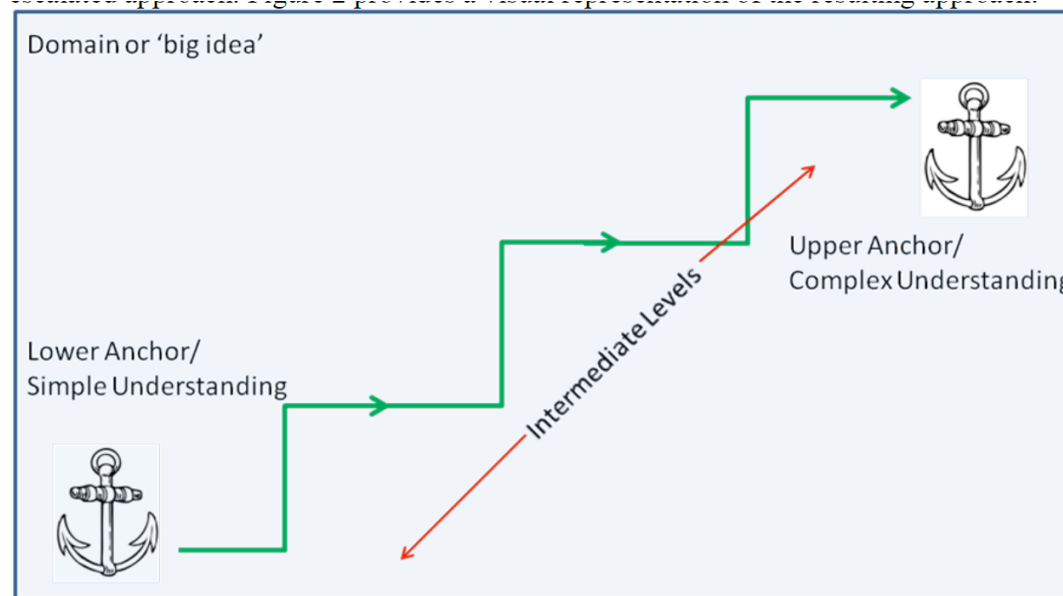
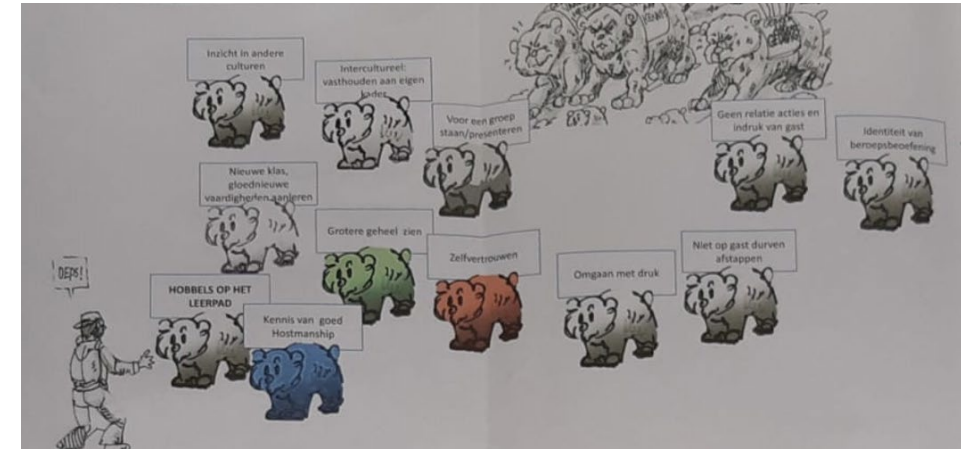


Figure 2. Visual Representation of the escalated approach to Learning Progressions.

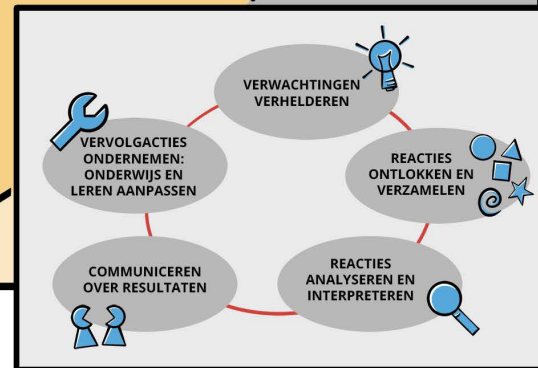
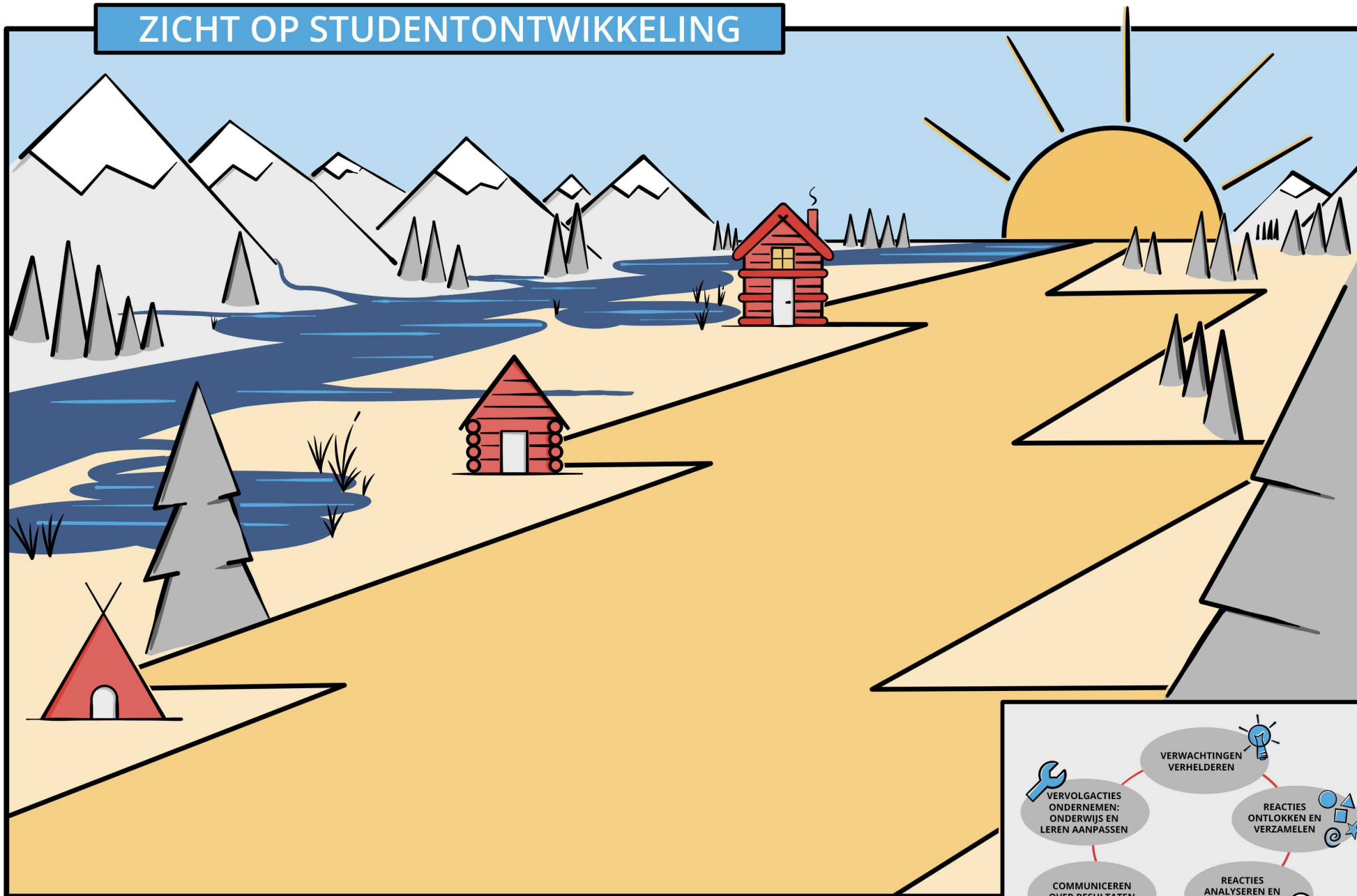
Salinas, (2009). Learning progressions in science education: two approaches for development. Paper presented at the Learning Progressions in Science (LeaPS) Conference, June 2009, Iowa City.

Method 1: learning progression poster



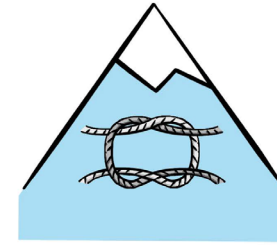
- Difficult: focus of the learning progression
- Difficult: zooming in – zooming out
- Helpful: take student perspective (personas, interviews)
- Helpful: discover new hurdles students experience, also in the workplace and related to attitudes / identity
- Helpful: visualisation

ZICHT OP STUDENTONTWIKKELING

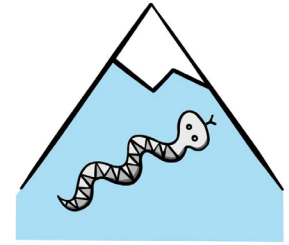


Different hurdles

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



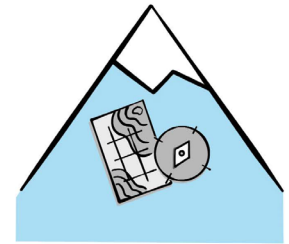
VAARDIGHEIDHOBBEL



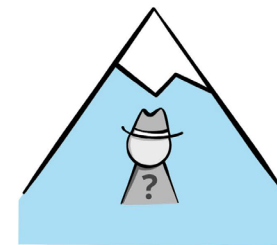
DURFHOBBEL



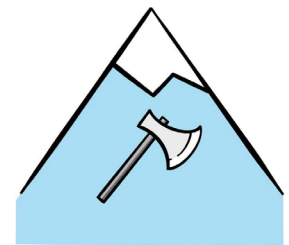
KENNISHOBBEL



THEORIE-PRAKTIJK
HOBBEL

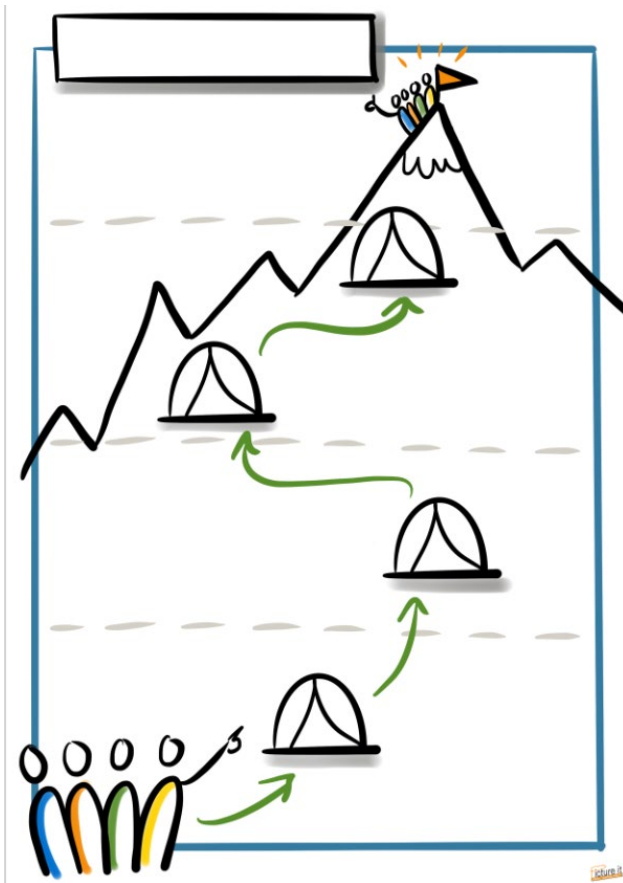


IDENTITEITHOBBEL



.....

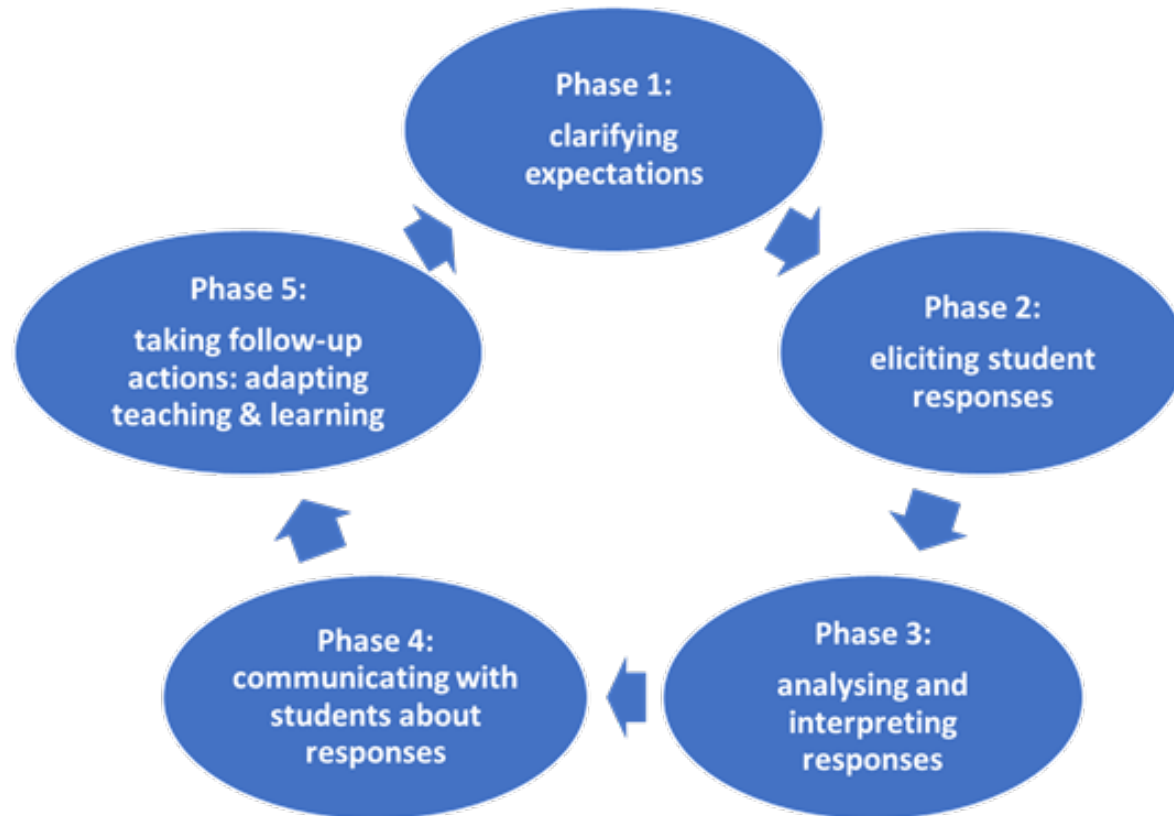
Try this out!



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 discover some hurdles many students encounter?
3. What kind of hurdles? Categorize

CONNECTING FORMATIVE ASSESSMENT ACTIVITIES

Formative Assessment



Benefits student learning

Depends on teachers

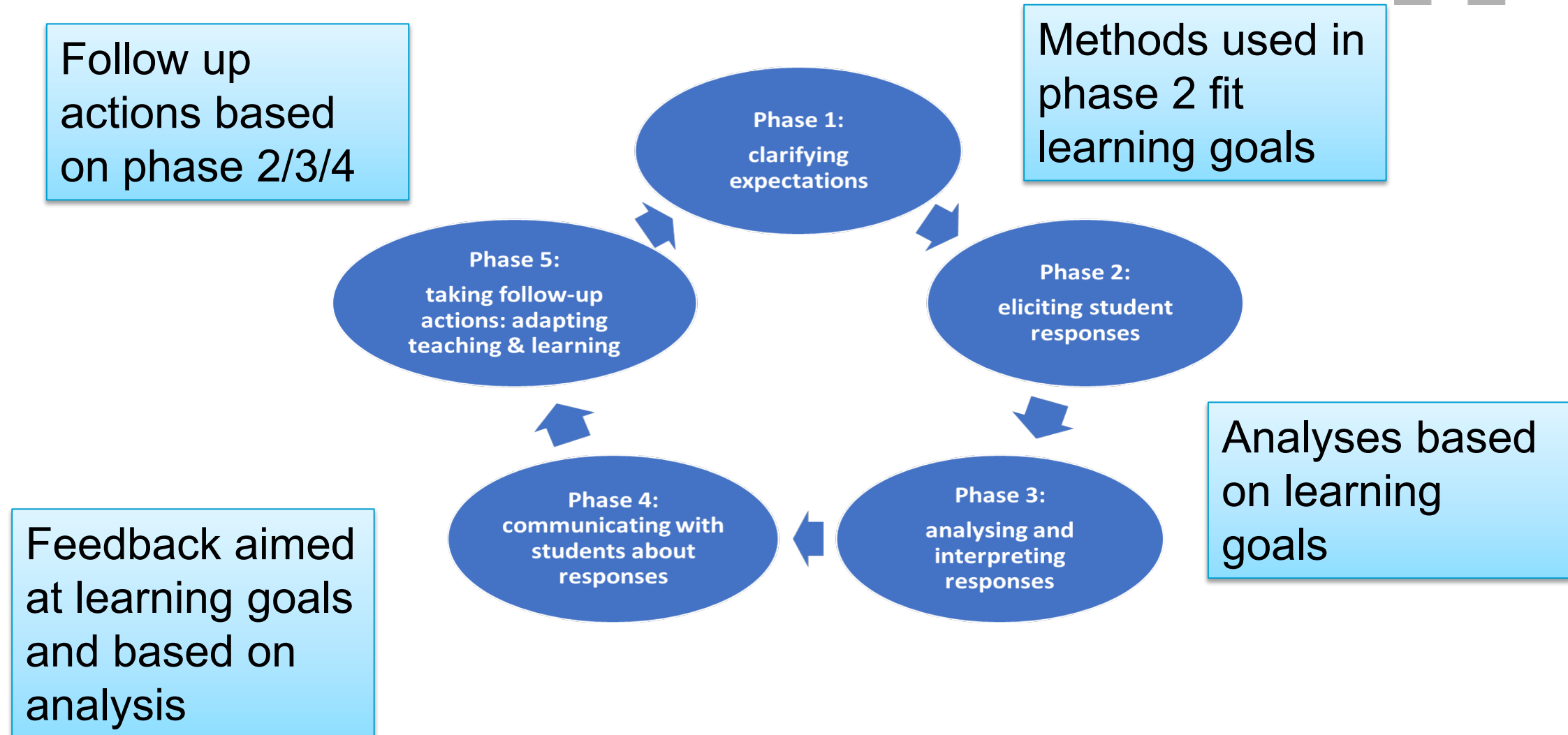
Teacher FA activities

FA-cycle

Process, not an instrument

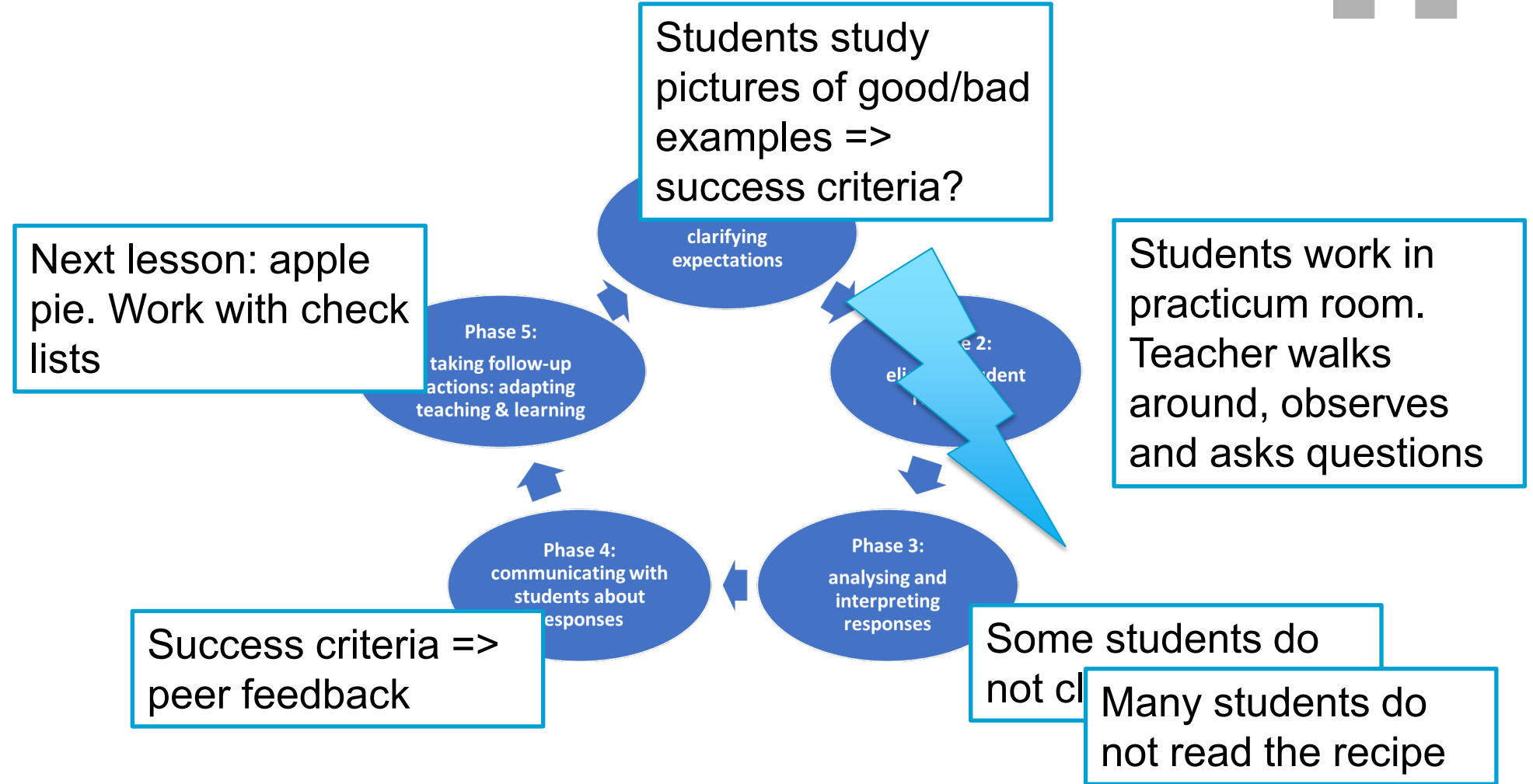

Planned and on-the-fly

Alignment between FA-phases



Example

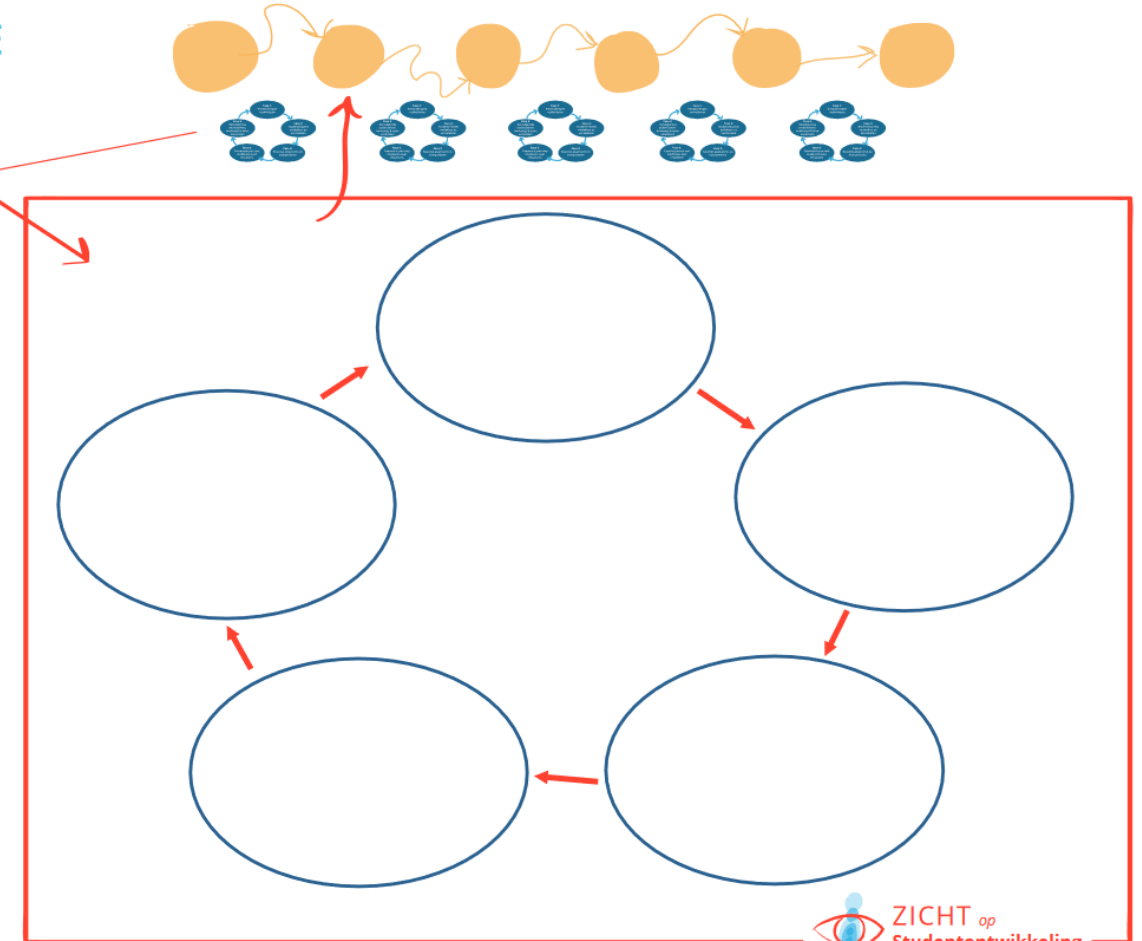
~~Learn how to make yoghurt~~ Learn how to follow a recipe



Connecting FA to the learning progression

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*



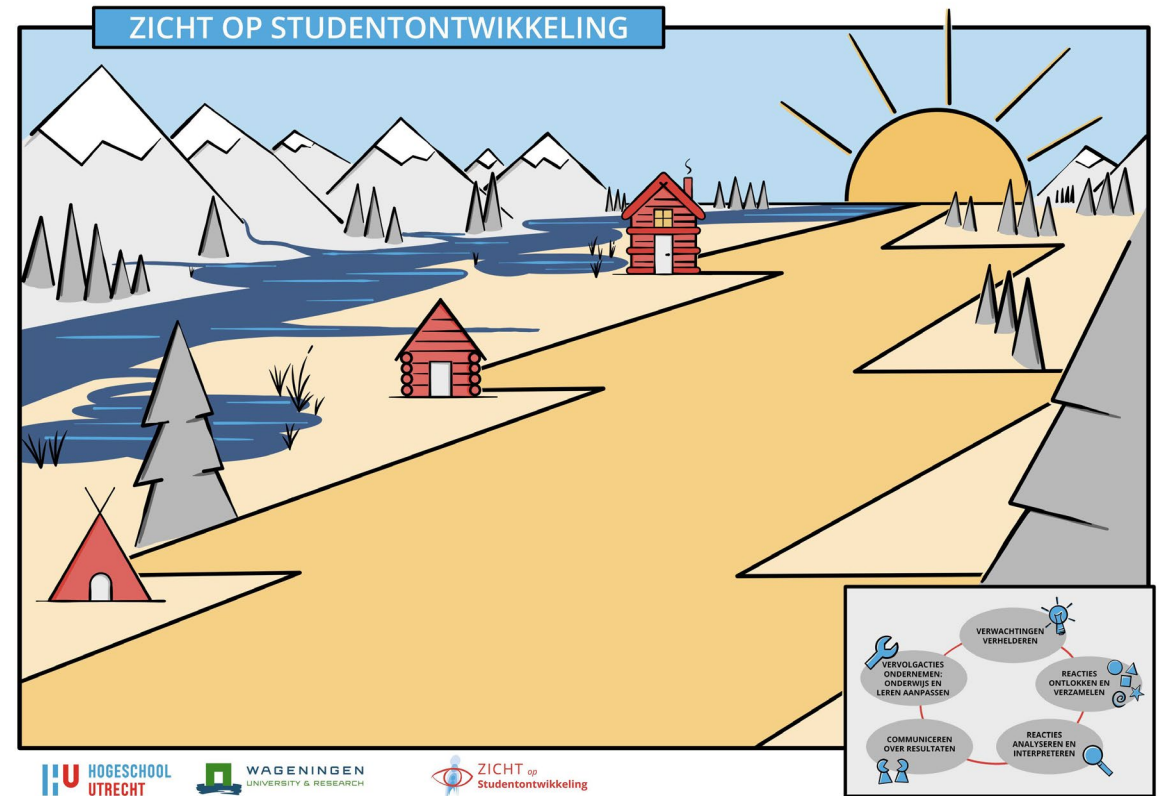
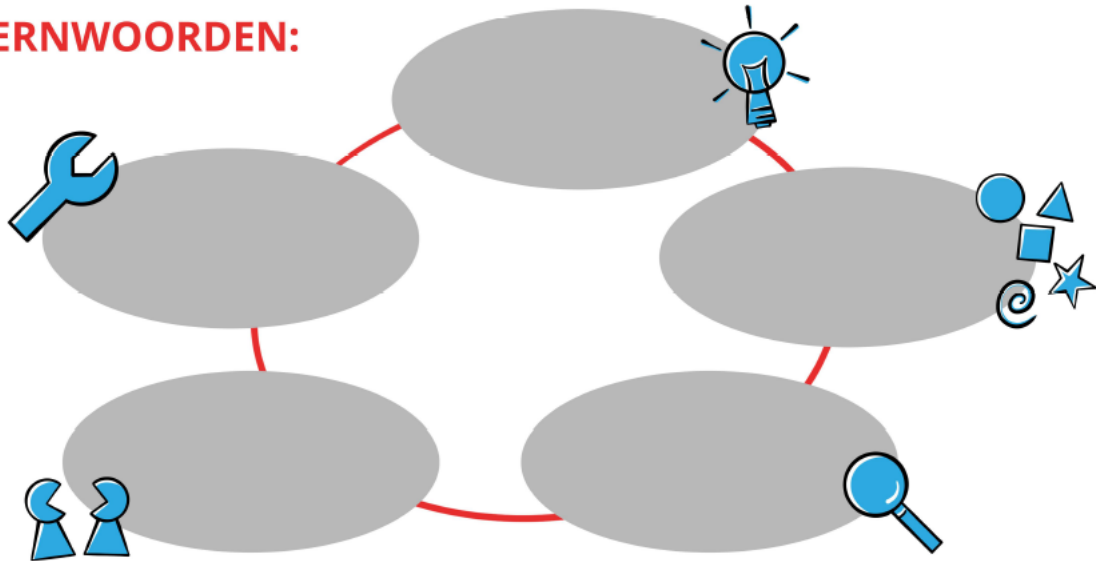
Lessons learned in our project

- Importance of learning goals (“what are we aiming for?”)
In the exit ticket we asked students “what did you learn” and “what was difficult for you”. But the student did not know what hospitality really entails. So they could not answer these questions. We did not know ourselves”
- Connecting FA-activities to learning progression requires zooming in and zooming out
- Identify hurdles and analyse these hurdles

SOORT HOBBEL:



KERNWOORDEN:

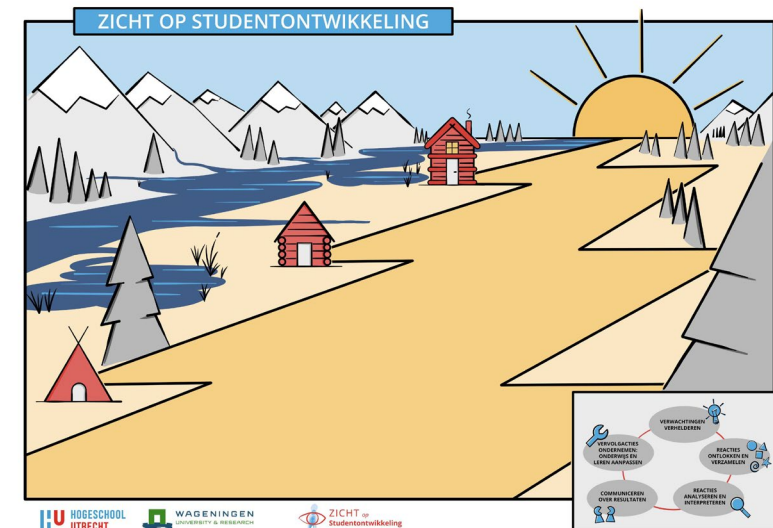
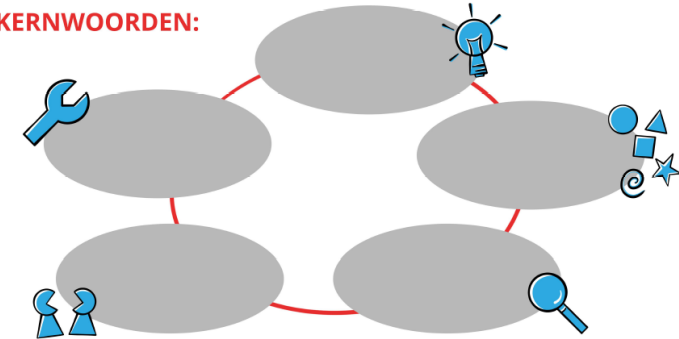


- Choose one of the hurdles
- How can you discover this hurdle (phase 2/3)?
- What feedback do you give (phase 4)?
- What do you do (as a teacher) to help students overcome this hurdle (phase 5)?

SOORT HOBBEL:



KERNWOORDEN:



Thank you!!

Liesbeth.Baartman@hu.nl

Naam: _____ Opleiding: _____

ZICHT op Studentontwikkeling

De 1e keer dat je

1. Schrijf op de tijdlijn... Wat kon je al goed en wat vond je moeilijk?

De keer erna dat je

2. Wat had je geleerd ten opzichte van de 1e keer?

START HIER

3. Waar sta je nu? En kan je nog tussentoppen benoemen? Schrijf deze op de tijdlijn.

UITLEG EN KLEURENLEGENDA
In te vullen door de docent (vooral) - de inhoudelijke focus van dit leerpad is ...
In te vullen door (of samen met) de student.

4. Als je kijkt naar deze tijdlijn... Wat was voor jou een belangrijk leermoment/AHA-moment? (geef aan op de tijdlijn met een sticker of een kruisje en beschrijf hier waarom)

5. Wat was een belangrijke hobbelpunt, dus wat vond je erg moeilijk/ingewikkeld? (geef aan op de tijdlijn met een sticker of een kruisje en beschrijf hier waarom)

TEMPLATE FE-Cyclus

