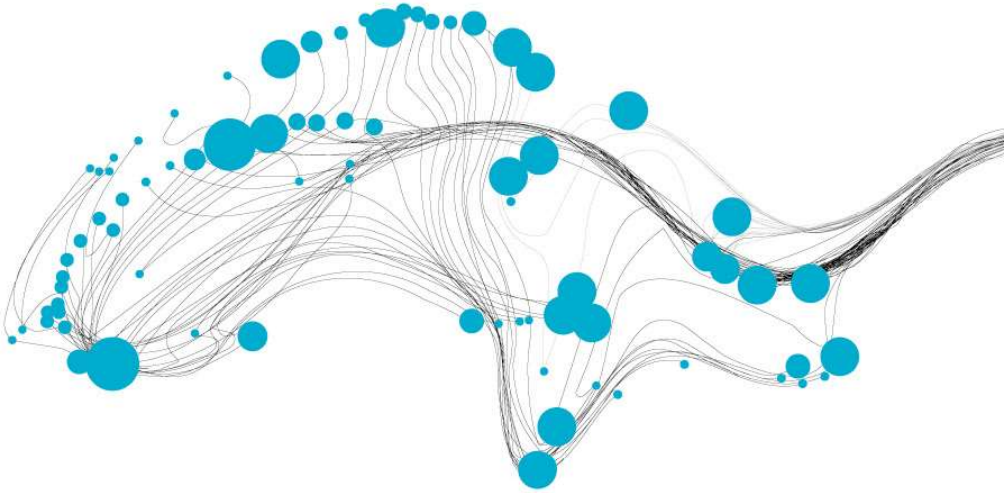
BMS/OWK Amber Kornet

ZOOMING IN…
ZOOMING OUT…

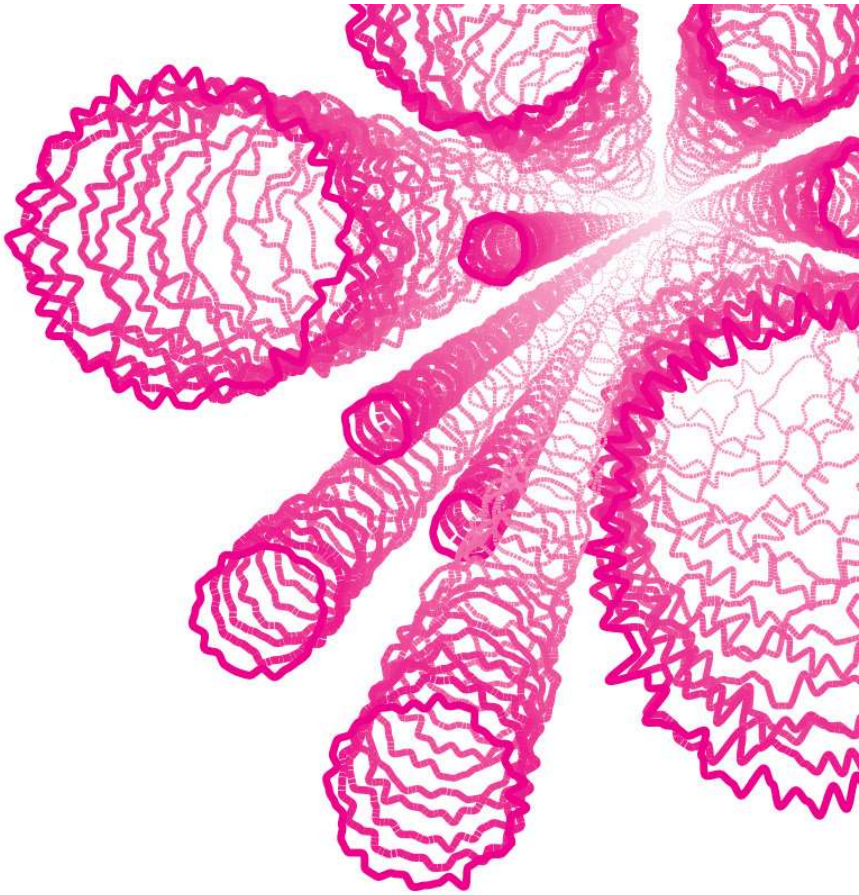
HOW TO PAINT THE WHOLE PICTURE WHEN LOOKING AT THE DETAILS?



SAXION HOGESCHOOL

UNIVERSITY OF TWENTE.

EVER WONDERED HOW **TEAM LEARNING** ACTIVITIES AND **TEAM REFLEXIVITY** ACTIVITIES **ALTERNATE**, AND FORM **PATTERNS** AND **SEQUENCES** OVER THE COURSE OF A COLLABORATION?



SAXION HOGESCHOOL

UNIVERSITY OF TWENTE.

INTRODUCTION

"Team learning is an ongoing process of reflection and action"
(Edmondson, 1999)

- Team learning and team reflexivity are often studied separately
- Development over time is often studied through self-reported questionnaires
- Team learning is often measured within team meetings

What **patterns** of team learning activities, and reflexivity **activities** do teams use to arrive at their pursued outcome?

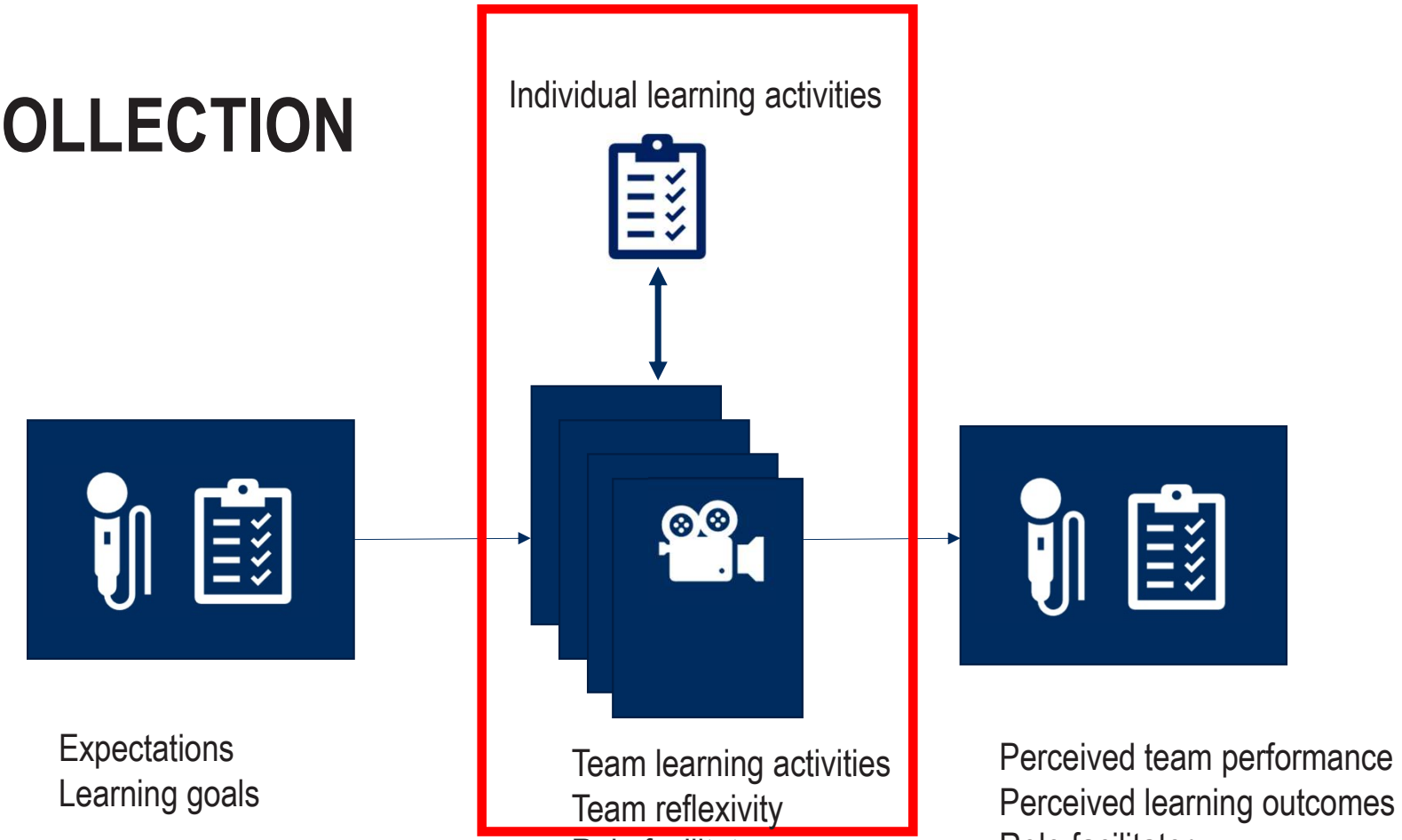
SAXION HOGESCHOOL UNIVERSITY OF TWENTE.

DESIGN & CONTEXT: CHALLENGE-BASED LEARNING COMMUNITIES

- An embedded multiple case study (Yin, 2009)
- 5 learning communities (teams)
- 6-10 team members, different professions (blue-collar) (total 40)
- Challenge in relation to energy transition
- 10 weeks
- 1 Facilitator per LC

SAXION HOGESCHOOL UNIVERSITY OF TWENTE.

DATA COLLECTION

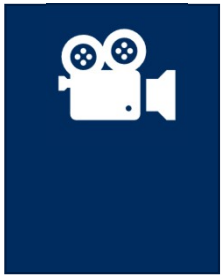


10x

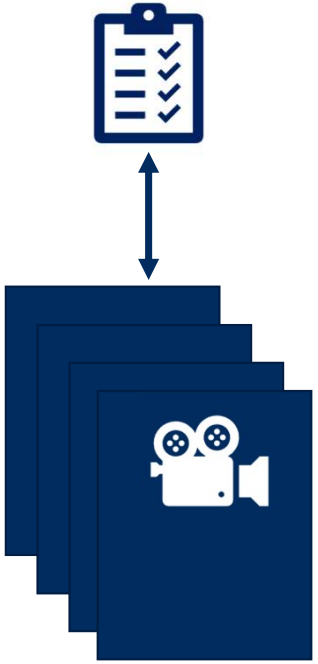
SAXION HOGESCHOOL UNIVERSITY OF TWENTE.

RQS & ANALYSIS

What patterns of team learning activities, and reflexivity activities are performed within meetings?



What patterns of team learning activites, and team reflexivity activities are performed between meetings?



SAXION HOGESCHOOL UNIVERSITY OF TWENTE.

CODEBOOK TEAM REFLEXIVITY

Code	Description
Planning	Planning: **Discussing how to** go about solving problems, goal setting, collaboratively discussing task directions, translating directions into a clear plan including scheduling, and designating task responsibility (Wijga, Endedijk, Veldkamp, 2023)
Monitoring	Monitoring content understanding, **comparing a current state** with a desired state (goal standard), **assessing progress**, recognizing what remains to be completed, and **monitoring the pace and time** remaining (Wijga, Endedijk, Veldkamp, 2023)
Evaluating	Making a **judgement about goal attainment**, discussing what could be **improved next time** (Wijga, Endedijk, Veldkamp, 2023)

CODEBOOK TEAM LEARNING ACTIVITIES

Team learning is an ongoing process of reflection and action characterised by asking questions, seeking feedback, experimenting and discussing results (Edmondson, 1999)

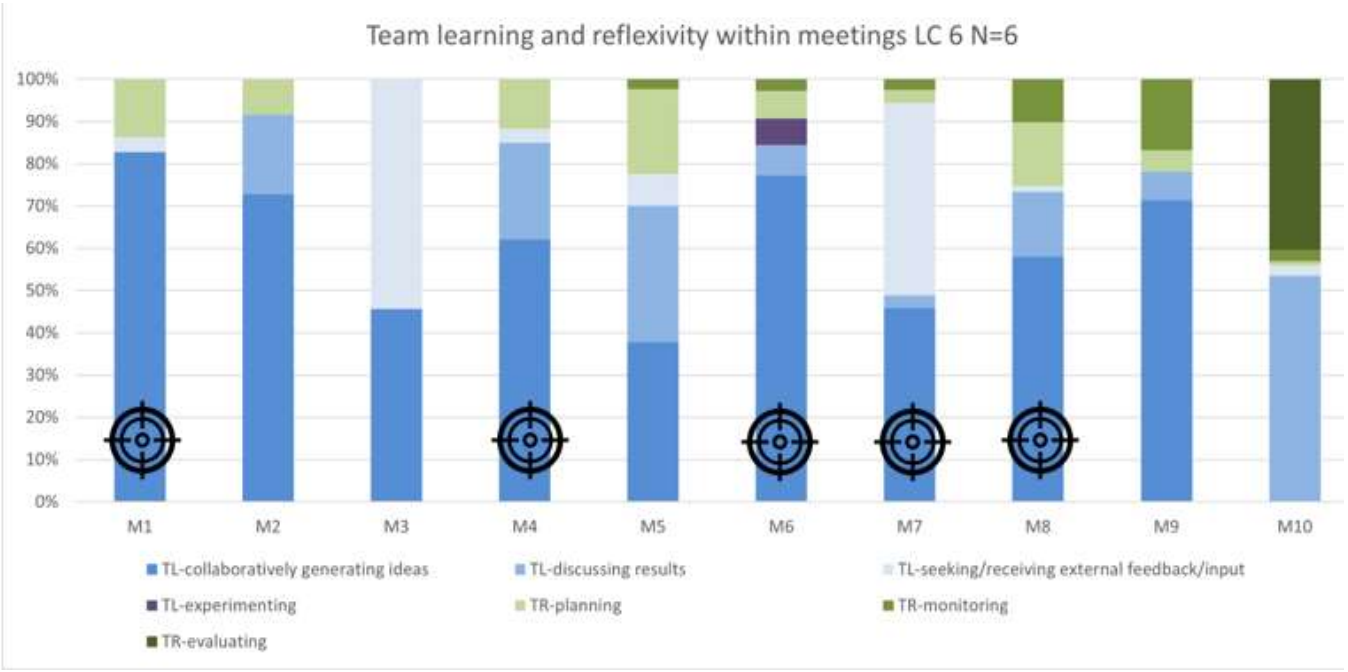
Code	Description
Seeking/ receiving external feedback or input	Intentional exchange or search for **information/opinions/ideas with/from parties external** to the team (Edmondson 1999). Team members **invite people from outside the team to present information** or have a discussion with them (Raes, Boon & Kyndt, 2017).
Experimenting	Trying out a new approach; practicing new behavior; **undertaking working activities without an intention to learn but still results in learning** (Decuyper et al., 2010; Raes, Boon & Kyndt, 2017; Bakkenes et al. 2010; Kyndt et al. 2016; Meirink et al., 2007).
Discussing results	Reflecting on **results of experiments & discussing errors and unexpected outcomes of experiments, problems and mistakes** made on the work floor**,** where things did not work as planned (Edmondson, 1999).
Collaborative idea generation*	Idea generation is defined as the **creation of ideas** that appropriately address existing needs and problems in a way that is new and useful for the work context at hand (Messmann & Mulder, 2020).

*incerted after first round of coding

SAXION HOGESCHOOL UNIVERSITY OF TWENTE.

RESULTS: ZOOMING IN…

Lifespan analysis of percentages of time spent on team learning and team reflexivity activities within meetings and goal development

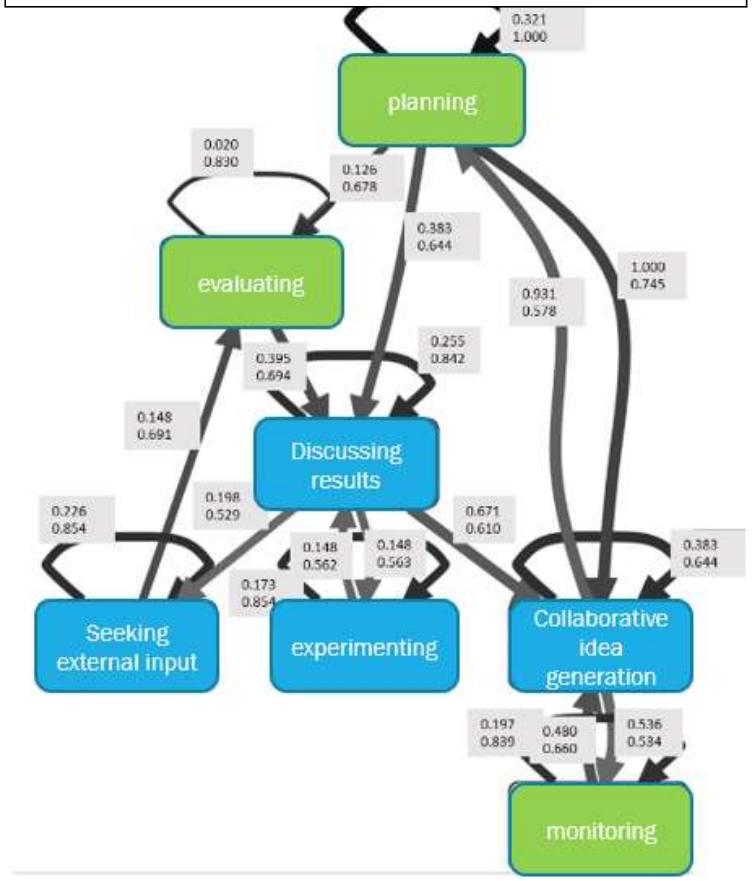


- In all meetings **more time is spent** on **team learning** activities than on team reflexivity
- **Meeting 3** was a special meeting, an expert was there giving external input and the team generated new ideas collaboratively
- In this team there is **almost no experimenting** in the meetings
- When they are **half way**, they start **monitoring** their process
- **Evaluation** (reflection on the process) is only done in the **very last meeting**
- In **meeting 8 the goal is adjusted** for the last time

SAXION HOGESCHOOL UNIVERSITY OF TWENTE.

ZOOMING IN…

Process of activities within meetings



- Process mining: **Fuzzy model**

- Event log with all meetings, showing all activities and their relations

Results:

- **Discussing results** (of individual learning activities) most **central in process**
- Strong **relations** between **planning**, **collaborative idea generation** and **discussing results**
  - Discussing results **after planning** often means that a new topic is started
  - Discussing results then often **leads to collaborative idea generation**, which leads to making new plans

SAXION HOGESCHOOL UNIVERSITY OF TWENTE.

ZOOMING IN…

Reported activities performed between meetings (N=6)

	Between meetings	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10
Reported activities, multiple choice, multiple answer	Thinking about the subject	5	4	4	3	3	1	1	2	3
	Information gathering	3	2	1	-	2	1	-	2	1
	Asking/ shadowing someone	1	-	2	1	3	1	1	3	3
	Sharing information	4	1	2	1	4	1	2	4	4
	Practicing	-	-	-	-	1	1	-	1	-
	Trying out	-	-	-	-	1	1	-	1	3
	Investigating an issue	-	1	-	1	2	-	-	1	1
	Something else	1	-	1	-	1	1	1	1	-
	Did nothing	-	2	-	-	1	1	1	-	-
Response	X out of 6	6/6	5/6	5/6	3/6	6/6	2/6	2/6	5/6	5/6

- **Thinking about the subject** (begin) & **sharing information** (end) is most often reported
- Between meeting 1-4 almost all participants report activities
- **Experimenting** starts only half way

Question?
How to relate this to the team learning & reflexivity activities?

SAXION HOGESCHOOL UNIVERSITY OF TWENTE.

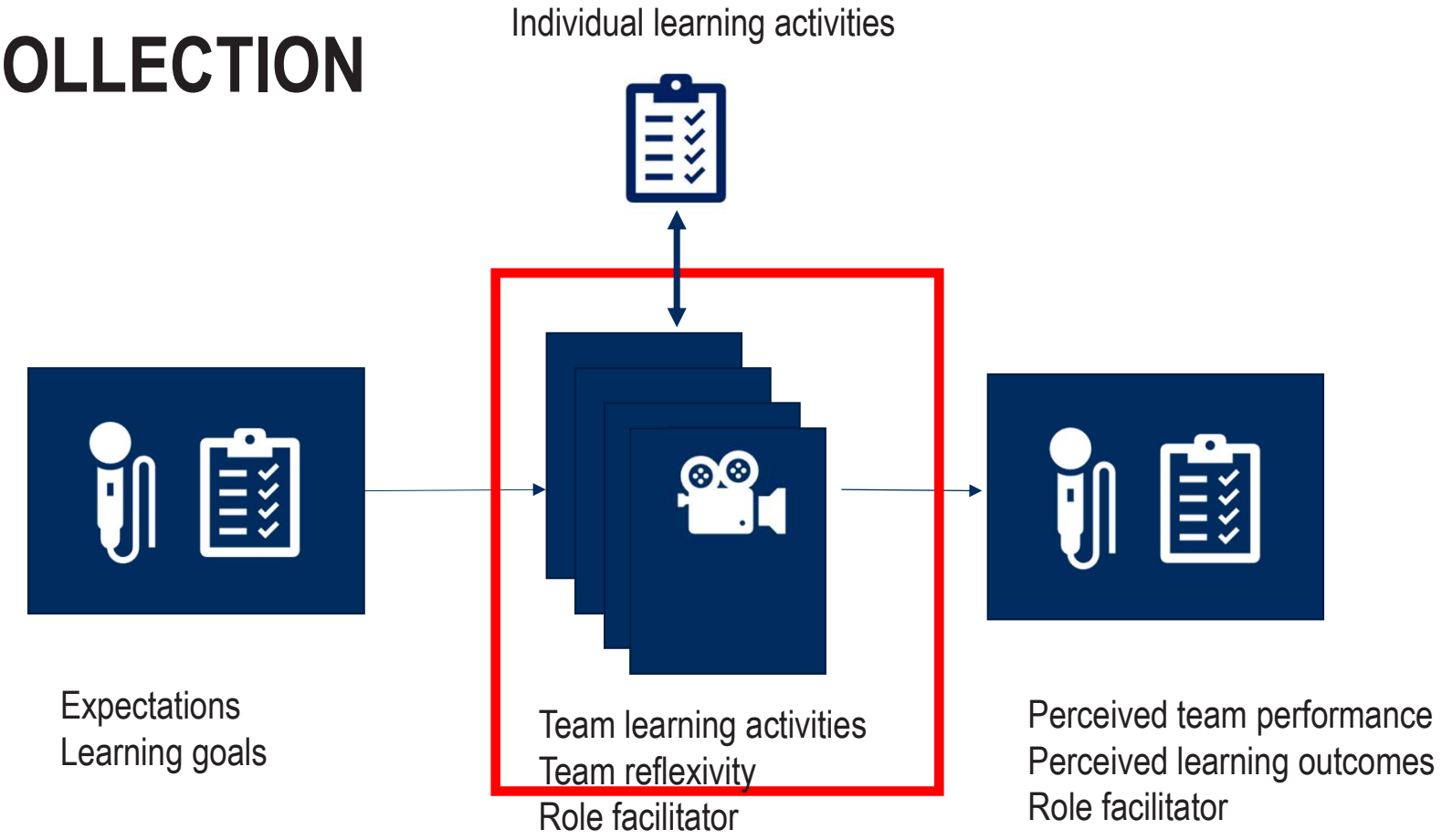
ZOOMING OUT…

How do I paint the whole picture when looking at the details?

How to integrate:

- Data team learning & reflexivity WITH the data on individual learning activities?
- Team learning, reflexivity and individual learning WITH perceived outcomes (individual & team)

DATA COLLECTION



10x

SAXION HOGESCHOOL UNIVERSITY OF TWENTE.

CRITICAL REFLECTION

EMBEDDED MULTIPLE CASE STUDY USING MIXED METHODS

PRO:

- The possibility to paint a more complete picture
- Rich descriptions of the context (Mulder, 2022)
- A lot of data and options to compare and contrast:
  - Pursued goal
  - Perceived performance

CON:

- Just the story of 5 different cases
- Struggles with integration
- Qualitative nor quantitative

QUESTIONS?

SAXION HOGESCHOOL UNIVERSITY OF TWENTE.