



DIVERGENT BELIEFS ABOUT PRODUCTIVITY DESPITE CONCURRENT ENGINEERING AND PULL PLANNING, A CASE STUDY

by

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Why this study?

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The Issue



- Productivity as a benefit from concurrent engineering and pull planning
- Unpredictable behavior
- Previous research on Lean Construction

Research question:

Do collaborative work processes cultivate a shared belief of productivity in design teams?

Objectives:

Examine why the designers feel productive,

how they perceive the team's level of productivity, and

in what setting they have a feeling of being productive.

Research Design



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- The basis
 - 15 interviews
 - 30 hours of meeting observations
 - Project documents
- Limitation
- Inductive analysis
- Social perspective

Context

- Productivity shape employees' behavior

Tangen (2002), Ruch (1994)

- «You get what you measure»

Brown (1990)

- Construction and design work

Koskela (1999), Ballard (2000)

- Productivity is not a fact

Tangen (2002)

- Concurrent engineering and pull planning

Ballard (1999), Tsao (2014)

- Effect on behavior

- Aligning team members' effort

Aziz and Hafez (2013)

Data and discussion

Defining productivity

- Speed
- Delivery
- Plans

*To have and to follow a plan
that ensures that that the team
is delivering the right things at
the right time*

Data and discussion

How do they recognize productivity?

- Absence of a measurement system
- Obvious in concurrent work
- The BIM-model visualized it

Data and discussion

How do they perceive the team's productivity level?

- Project delay
- Level above average
- Contractor brought in too late

Data and discussion

In what situations do they feel productive and why?

- Meetings
- Work alone
 - Trust
 - Pulling together
 - Respect
- Time, feedback, communication, knowledge, pleased

"In [an episode] we had two meetings, and we presented to each other the issues, and after we had pondered a little, we could offer a solution that suddenly turned out to cover several needs"

Conclusion

Do collaborative work processes cultivate a shared belief of productivity in design teams?

- Project mechanisms affect team members' beliefs
- More productive feeling in face-to-face situations

- Collaborative work processes cultivate the feeling, but not directly a shared belief of the definition of productivity.

Implications

Contribution:

- Divergent understanding despite collaborative work
- Discussion of delivery models

Future research:

- Psychological safety
- Virtual environment

Do not take the aligning of the understanding of productivity for granted.

Thank you!

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