

Design research, participation and the built school environment

Citation for published version (APA):

McKenney, S. (2014). *Design research, participation and the built school environment*.

Document status and date:

Published: 14/01/2014

Document Version:

Peer reviewed version

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

<https://www.ou.nl/taverne-agreement>

Take down policy

If you believe that this document breaches copyright please contact us at:

pure-support@ou.nl

providing details and we will investigate your claim.

Downloaded from <https://research.ou.nl/> on date: 27 Aug. 2020

Open Universiteit
www.ou.nl



Design research, participation and the built school environment.

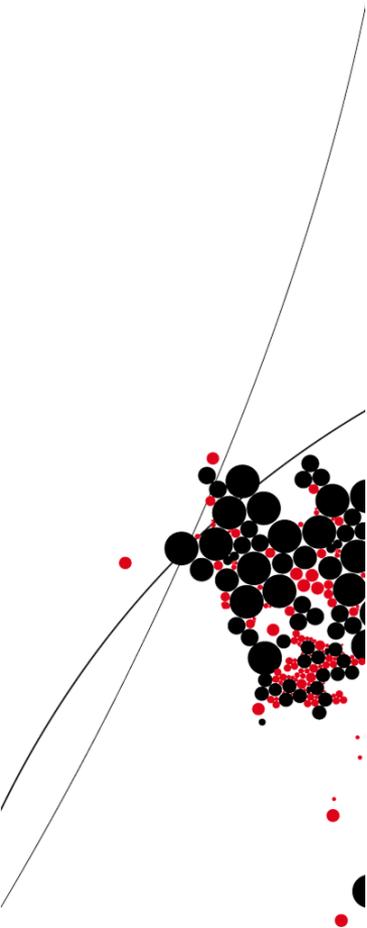
*Invited presentation for the AHRC-NWO project on
Participatory Design of the Future Building School
December 2-3, London*

Susan McKenney

Open University & Twente University

University of Pittsburgh

UNIVERSITY OF TWENTE.



What can we learn from research on design?

- Three strands of existing research on design
 - Normative
 - Naturalistic
 - Design-as-art
- What do schools need to productively co-create?
 - Notions from existing research? Craft wisdom? Colloquial evidence?
 - Know-what
 - Know-how
 - Know-why
 - Know-when

Understanding stakeholders

Considerations

- In the school: children, teachers, leaders
- Outside the school: parents, designers, policy
- Short-term and long term participation

Empathy and participating in designing (the building)

- Whose initiative? Whose task is it to shape participation?
- Productive engagement is personal
- Group dynamics change over time
- What are the consequence for the evolution of design space?

Interaction between buildings and curriculum enactment

- Agency of things
 - How much room does a building have to speak?
 - Is its voice:
 - Objective? (the artefact has its own message of intent)
 - Subjective? (intent is a product of co-creation between artefact and user)
 - What do we want to expect from a building? From ourselves?
- How do physical spaces influence learning experiences?
 - Do we need to understand this better?
 - Could such understanding help us explore how knowledge about learning experiences could/should influence configuration of physical spaces?

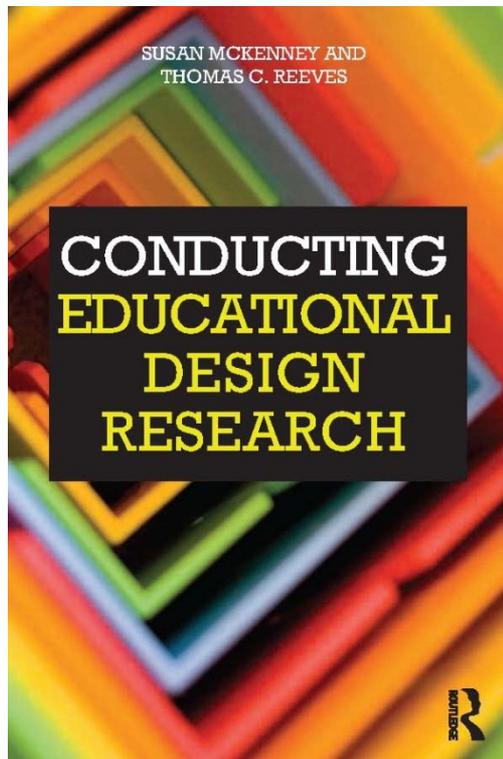
Interaction between buildings and curriculum enactment: Example*

To gain deeper insights into how spatial and material aspects of technology (re)organizes educational practice

- 12 primary schools in Flanders
- Different types of classroom layouts were identified.
- Teachers were selected and interviewed based on their typology
 - Classroom layout is in transition from one central display (blackboard) to multiple screens;
 - Because of physical access to technology, the educational practice is spatially dispersed over different locations within the school; and
 - Specific positioning of ICT affects the pedagogical use of technology in teaching and learning activities.

* Tondeur, J, van den Driessche, M., de Bruyne, E., & McKenney, S. (2011). *Agency of classroom settings: The influence of technology*. Paper presentation at the ECER annual meeting, September 13-16: Berlin.

What is educational design research?



“...a **genre of research** in which the **iterative development of solutions** to practical and complex educational problems also provides the context for empirical investigation, which yields **theoretical understanding** that can inform the work of others.”

- *McKenney & Reeves, 2012*

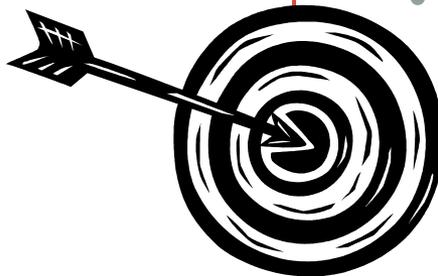
Goals of EDR

Solutions to real and complex problems (e.g.)

- Programs
 - Trainer development
- Processes
 - Learning model
- Products
 - Learning resources
- Policies
 - New organizational structures

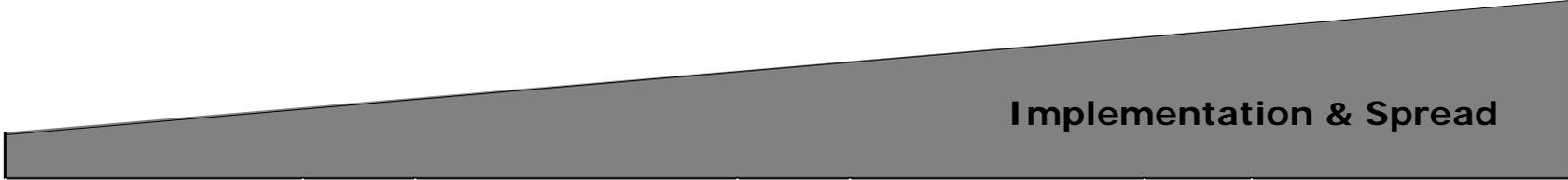
Scientific understanding (e.g.)

- Describe
 - What is present or happening
- Explain
 - Why things are such
- Predict
 - Cause and effect
- Prescribe
 - How to manipulate phenomena



Design research processes

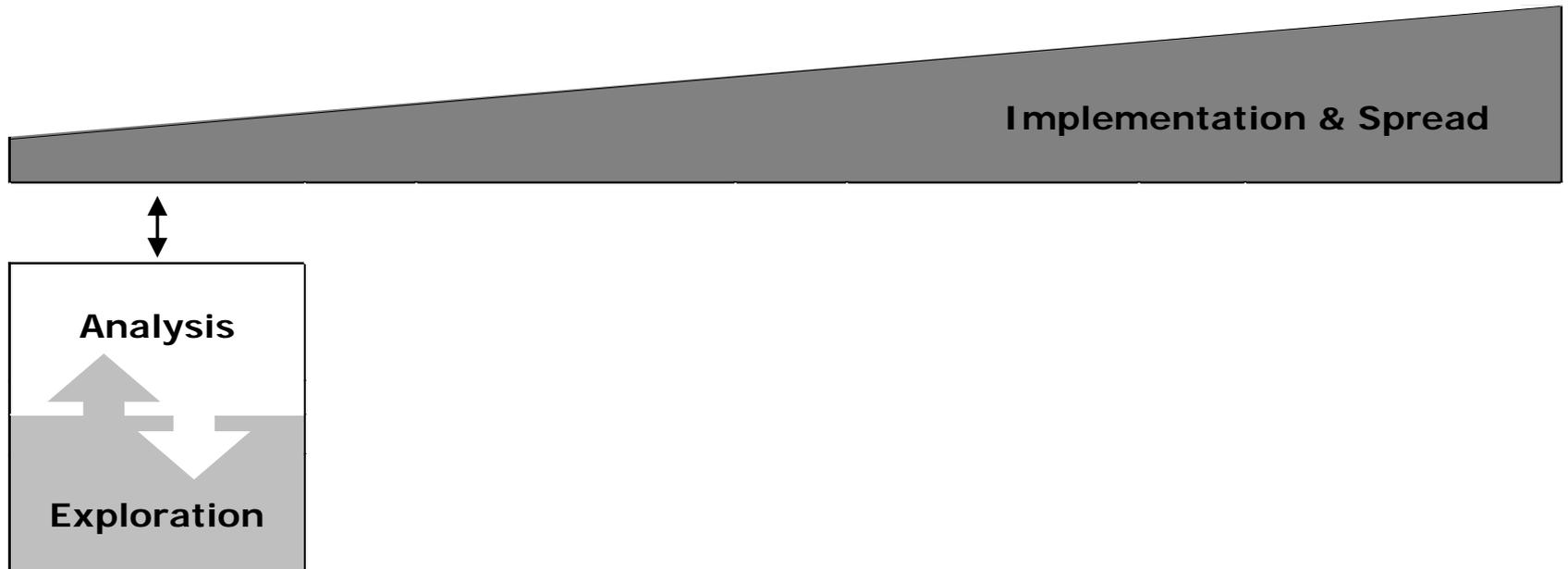
(McKenney & Reeves, 2012)



Implementation & Spread

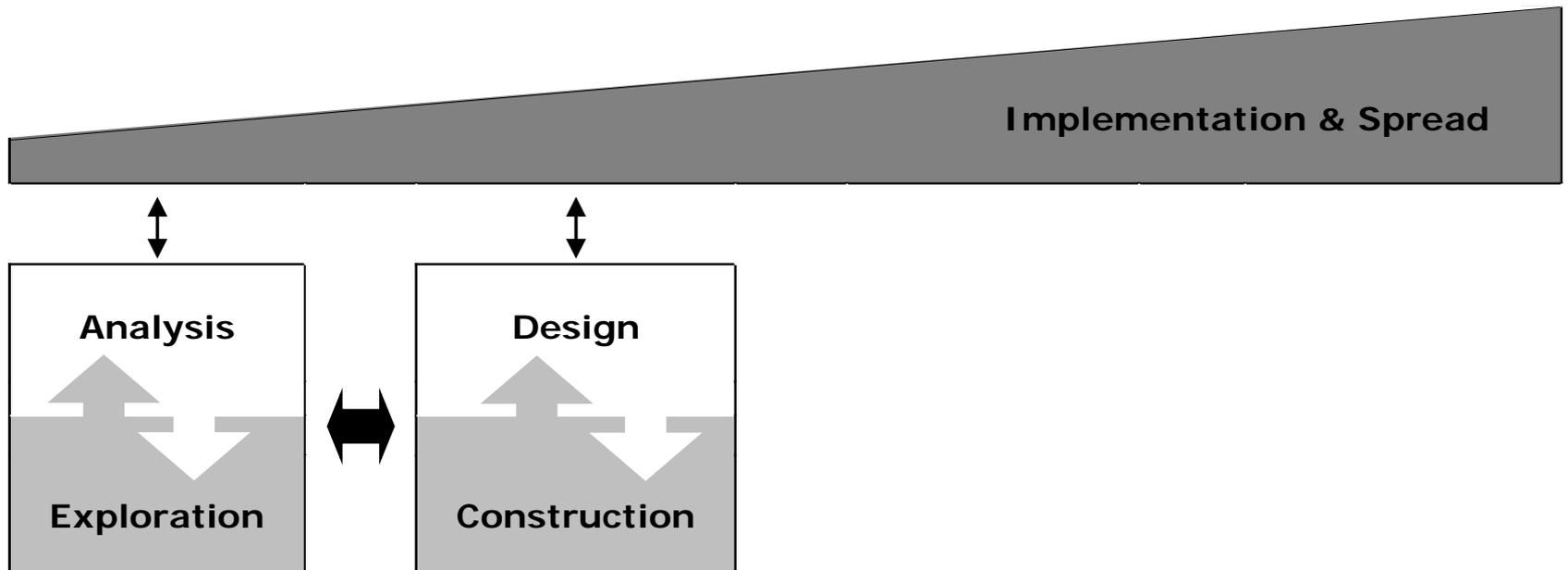
Design research processes

(McKenney & Reeves, 2012)



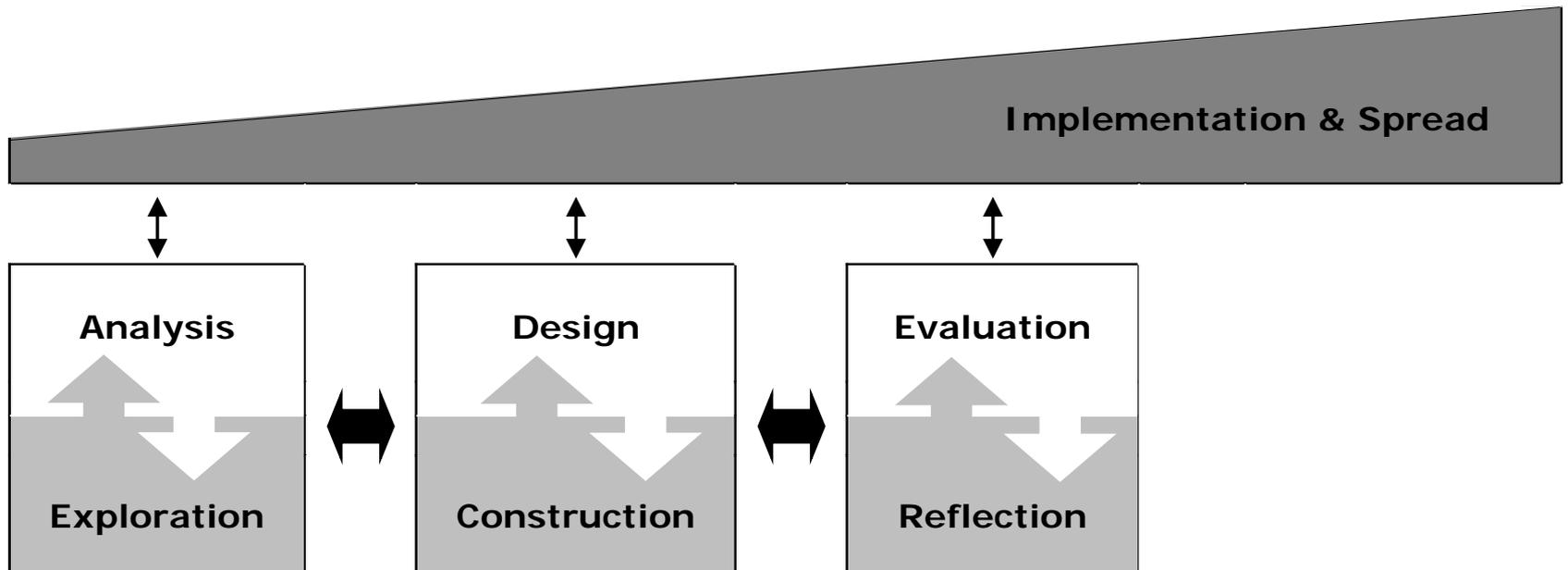
Design research processes

(McKenney & Reeves, 2012)



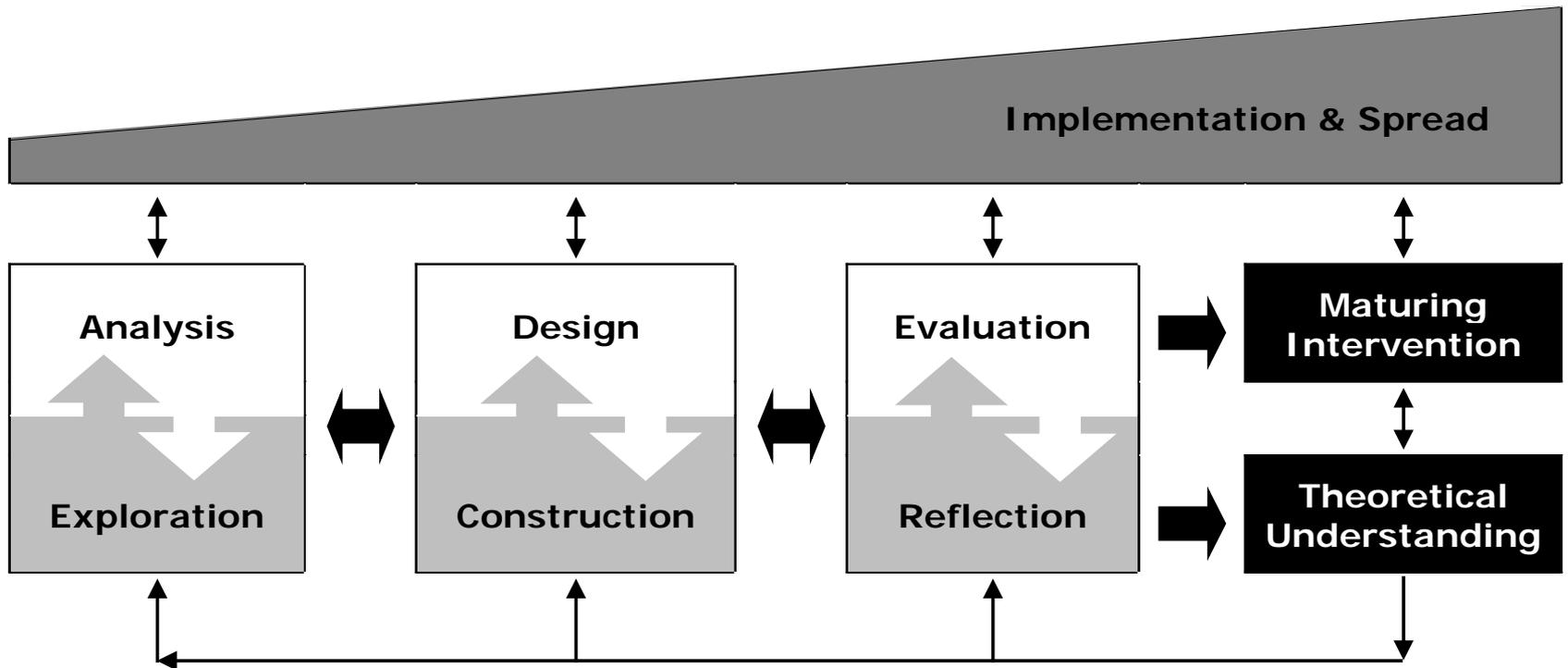
Design research processes

(McKenney & Reeves, 2012)



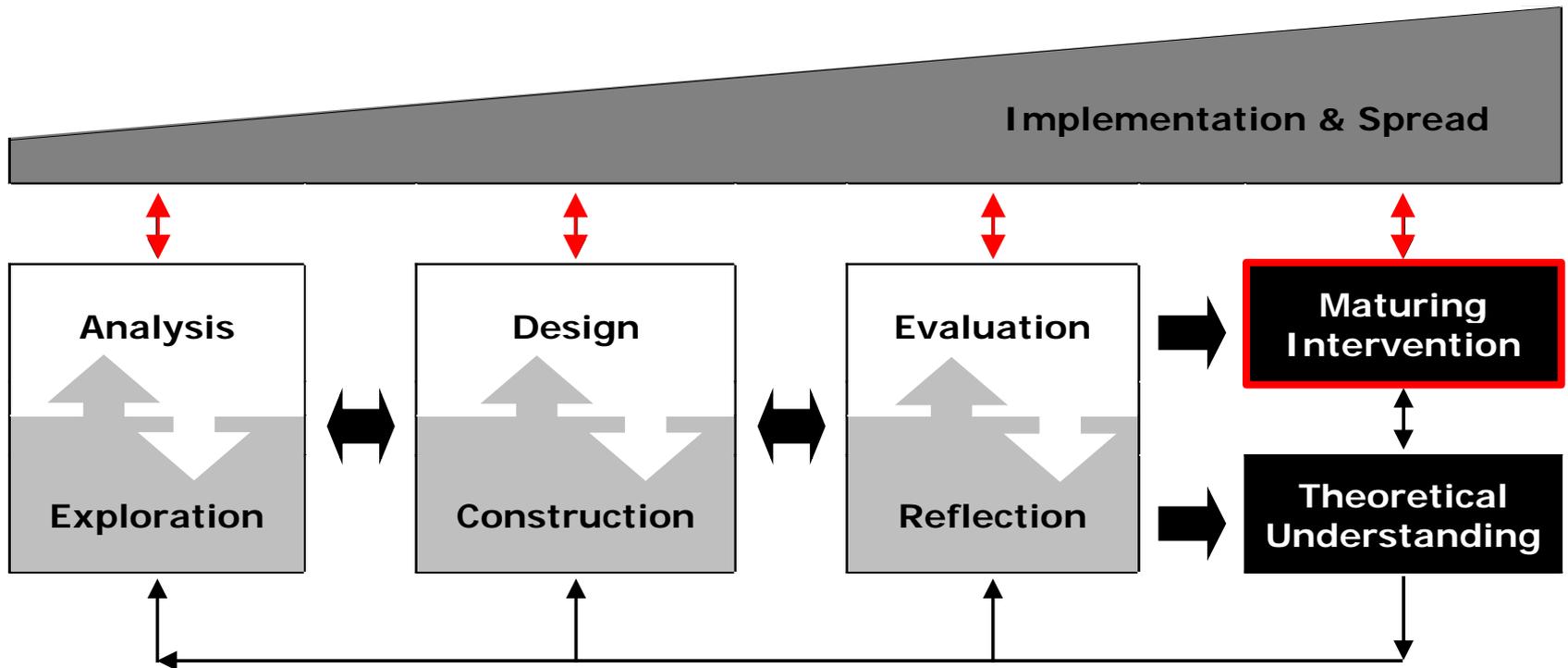
Design research processes

(McKenney & Reeves, 2012)

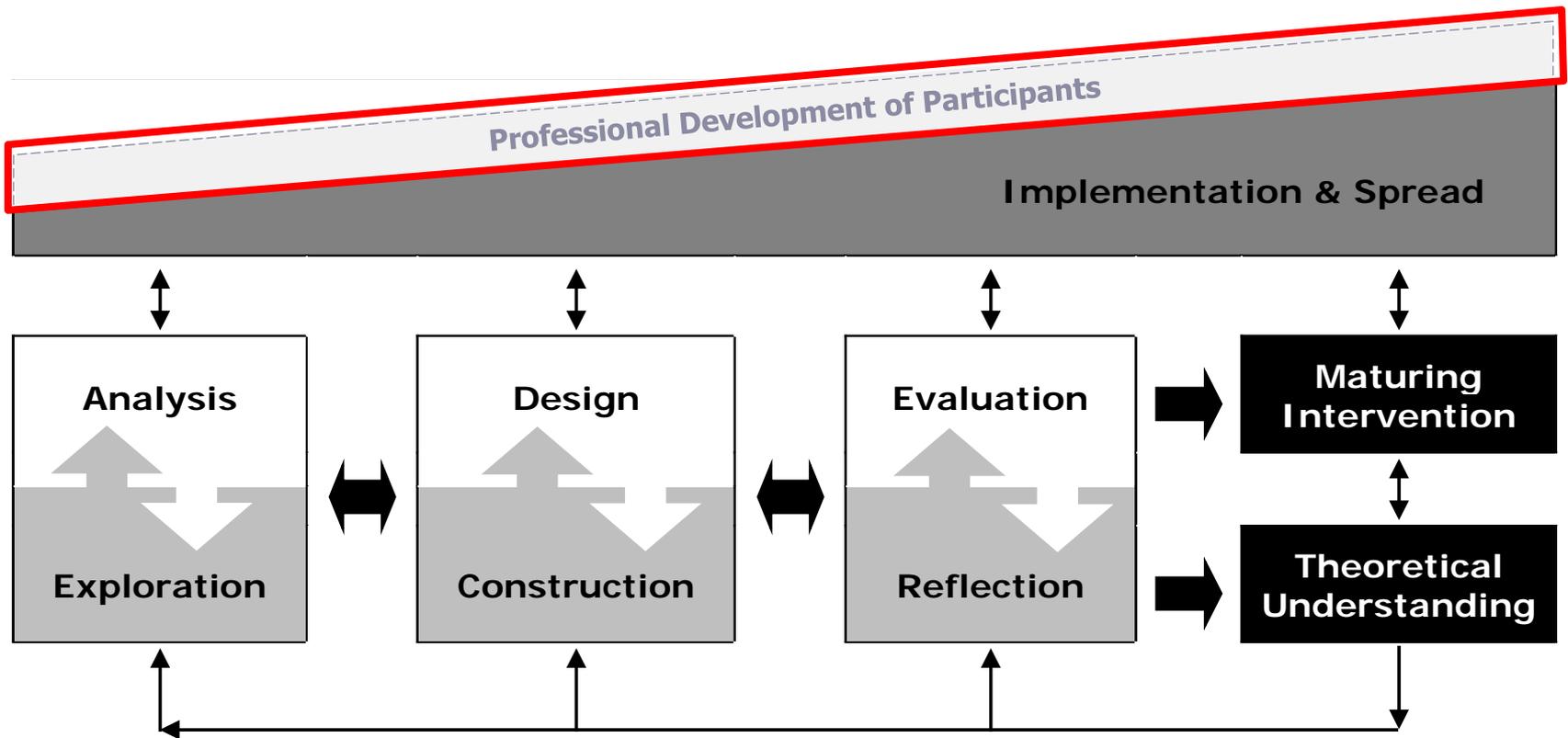


Constant connections with practice

(McKenney & Reeves, 2012)



Ideally also...



(McKenney & Reeves, 2013)

What might design research in this context look like?

Some basic processes

- Analysis & exploration
 - Key issues warranting investigation? According to whom?
 - SWOTS
- Design & construction
 - Common design framework addressing key issues
 - Manifestations in multiple settings
- Evaluation & reflection
 - Compare/contrast results
 - Hypothesize/test mediators

Participation considerations

- Analysis & exploration
 - Stakeholder roles?
- Design & construction
 - Who designs? constructs? how much? with whom else?
- Evaluation & reflection
 - Internal perspectives?
 - External voices?

What might design research in this context look like? (potential themes)

- Analysis & exploration
 - Tensions: community ↔ personal choice
 - Challenges: school & classroom orchestration
- Design & construction
 - Artefacts: Discussing intent through *diagrams*
 - Processes: *Distilling educational vision* through design brief creation
- Evaluation & reflection
 - Compare: student-student and teacher-teacher cooperation; continuous co-creation; student responsibility; bringing in outside expertise; sense of community; (preparing for) citizenship
 - Contrast: school maturity; roots (e.g. head/heart/hands, learning cycle)
 - Hypothesize/test: patterns (e.g. pedagogical vision-spatial orientations); explanations (e.g. why this school (inc. built environment) appeals to teachers, to children, to parents; productive strategies (e.g. intervention approach)

Thank you!
For discussion beyond today...

Susan McKenney

www.EducationalDesignResearch.org

susan.mckenney@ou.nl

susan.mckenney@utwente.nl

[@SusanEMcKenney](#)

UNIVERSITY OF TWENTE.

