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“How does it work?” A longitudinal microgenetic study on the development of young children’s understanding of scientific concepts

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PROPOSITIONS (*Stellingen behorend bij het proefschrift*)

“How does it Work?” A longitudinal microgenetic study on the development of young children’s understanding of scientific concepts

1. Understanding is a complex process of what a person constructs in interaction with - not just within- a specific material and social environment (*dit proefschrift*).
2. Talent entails a process that is emergenic, epigenetic and dynamic, making it hard to predict when it becomes observable (*dit proefschrift*).
3. In a context of scaffolding, teachers and researchers can optimally estimate the bandwidth of what a student knows about a particular subject (*dit proefschrift*).
4. There is no single ideal form of scaffolding. There only exists an ideal form of scaffolding at a specific moment in time, for a specific teacher-student pair (*dit proefschrift*).
5. The common finding that special needs students score lower on standardized tests does not accurately reflect their potential (*dit proefschrift*).
6. The most important variables to characterize the long-term development of understanding are the product of interactions between the child and his or her proximal environment (*dit proefschrift*).
7. Test scores are not the objective context-independent measures of students’ understanding they are claimed to be (*dit proefschrift*).
8. If schooling starts to resemble test training, it becomes questionable whether the students - and society in general - will benefit from this (*dit proefschrift*).
9. Studies aimed to generalize from large samples to the population are overvalued in the social sciences as being the only source of scientific development (*Flyvbjerg, 2006*).
10. De beste stelling is figuurlijk en wordt om een kind geplaatst.

Steffie van der Steen
Groningen, 8 mei 2014

