SMART SURVEYORS FOR LAND AND WATER MANAGEMENT
CHALLENGES IN A NEW REALITY

FIG NL
THE NETHERLANDS

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Michael Mayer, Jerome Dutell, and Monika Przybilla
Paper ID-Number: 11071
On the Status of the Education of Young Surveyors in Germany during the COVID-19 Pandemic

Session: Blended Learning: lessons from our responses to COVID-19 - WORKSHOP
24 June 2021, 12:30-14:00 (CEST)

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Framework

Michael Mayer, Jerome Dutell and Monika Przybilla (Germany):
On the Status of Geodetic Education in Germany during the COVID-19 Pandemic (11071)
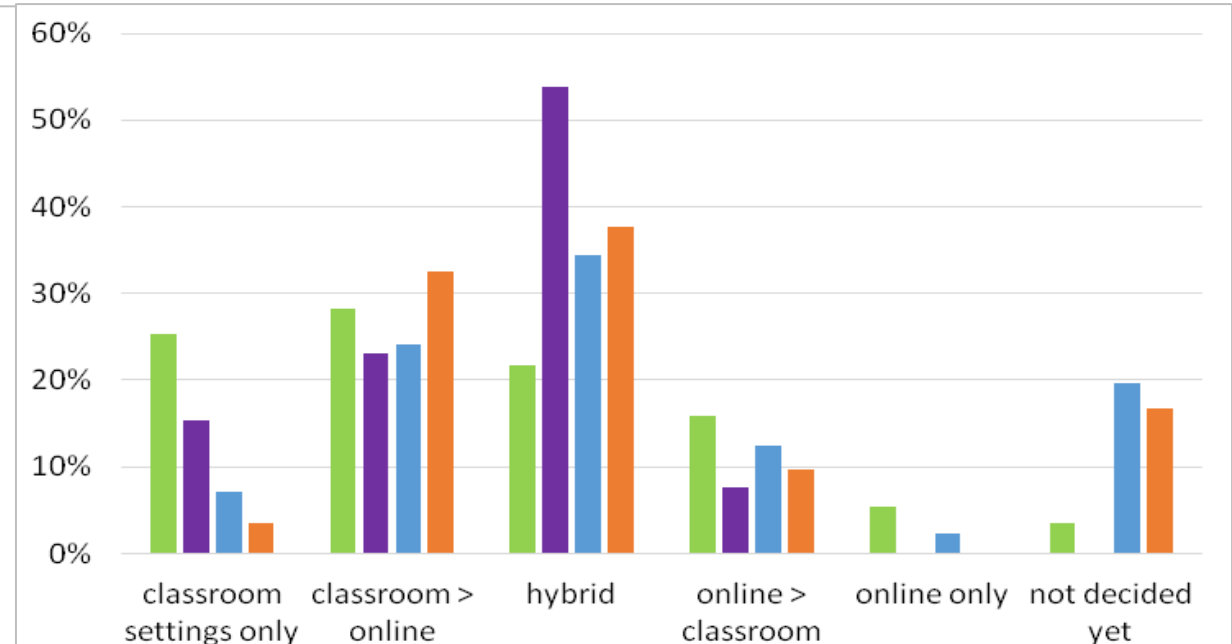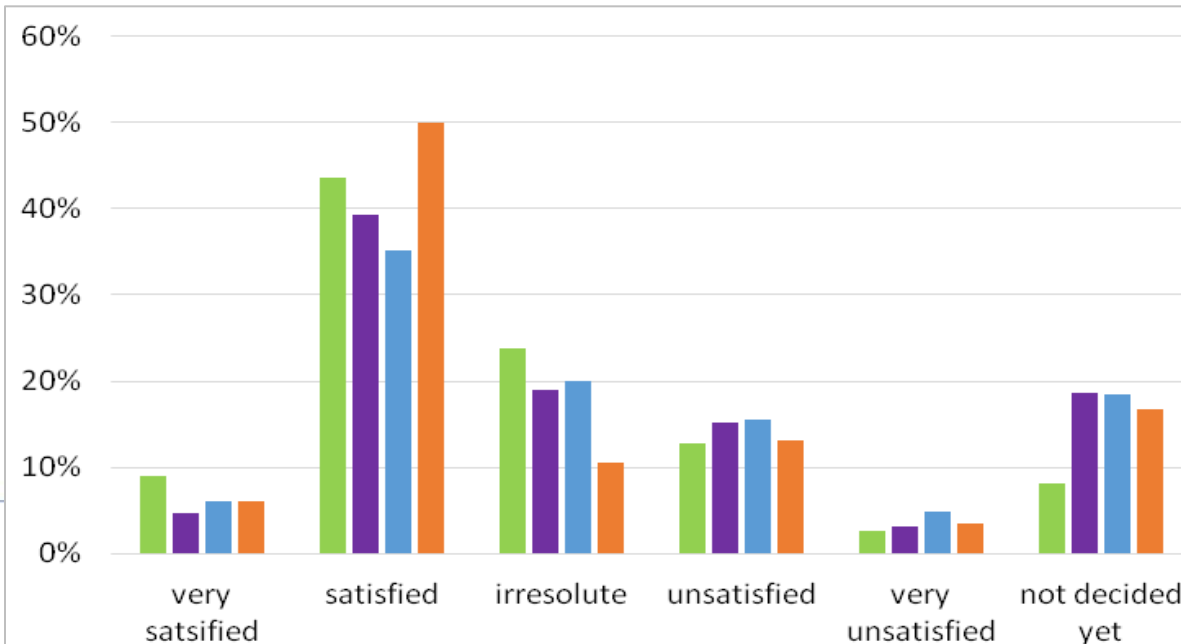[abstract] [paper] [handouts] [video]

Who are we?
Motivation?

- Online poll (ca. 1.500 participants; Oct.-Nov. 2020)

- Young surveyors: e.g., dual education (DE) and higher education (HE)

- Perspectives of learners and teachers
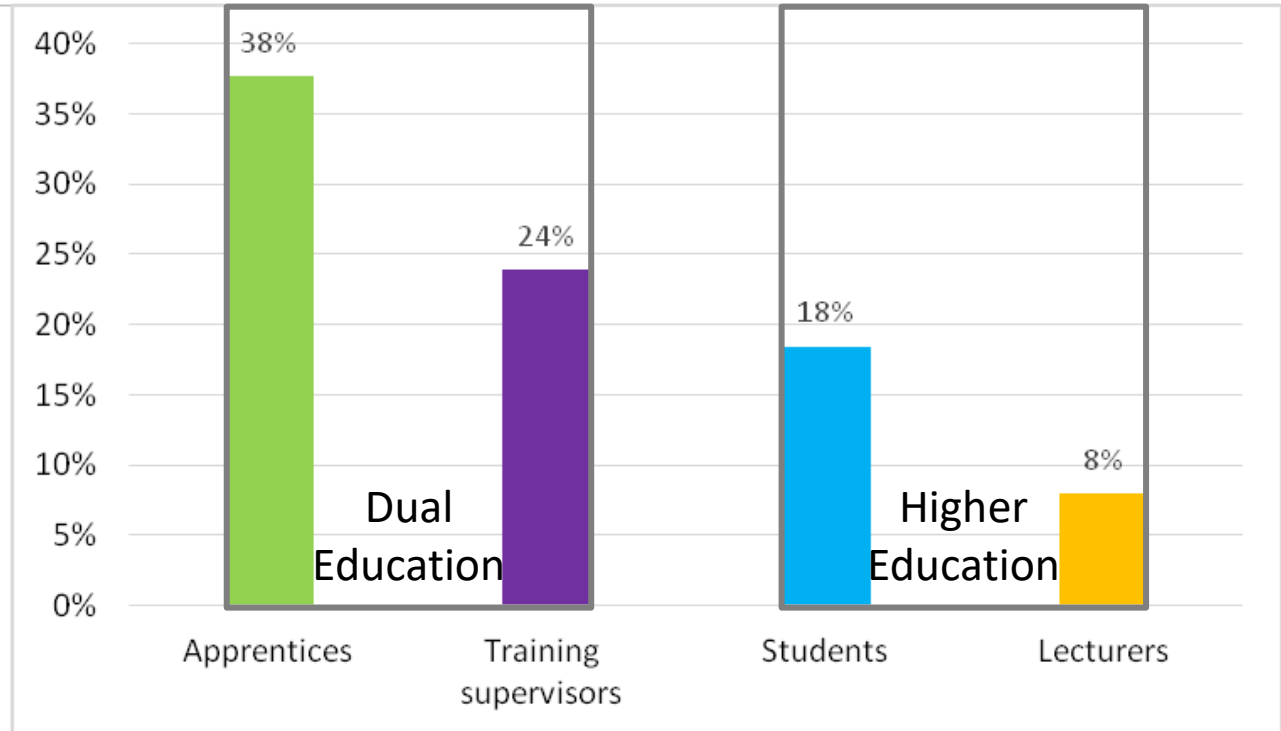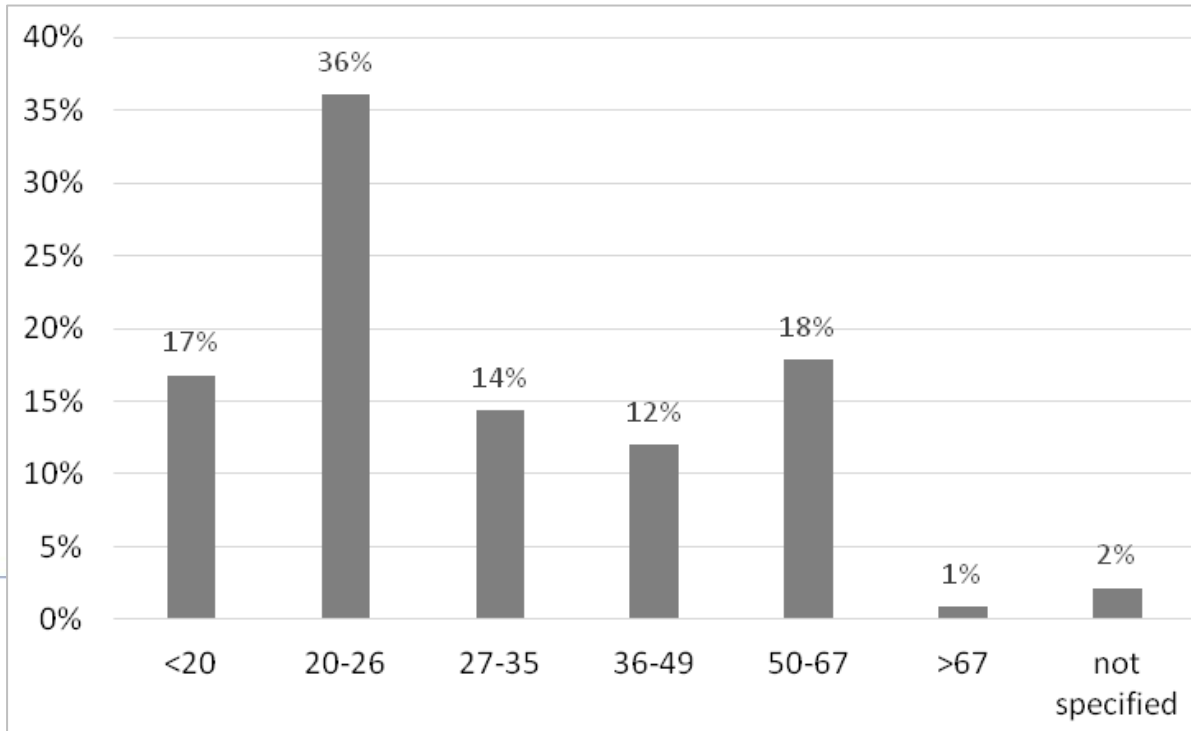
Most important **Findings**

- Working from home ability: DE << HE

- Insufficient separation between life and work (e.g., 45% HE teachers)

- Hardware (e.g., screens; 35% DE learner)

Next steps

- Finding good-practice in teaching and learning

- Discussing 'How will the future of education of Young Surveyors look like?'

- Padlet- and community-based approach

It's all about **context** and **constructive alignment**.

1. What learning activities must be f2f?

- Hands-on, Real-life surveying training, ... (*LEARNING OUTCOMES*)

- Entry phase of f2f study programs (*PHASE OF EDUCATION*)

- If the *INFRASTRUCTURE* supports high quality f2f education (e.g., #rooms, bad internet connection)

- If the teacher has a negative attitude towards online teaching (*TEACHER*)

- If the learning style of the class makes it necessary (*LEARNERS*)

2. How can f2f learning benefit from online content?

- *TEACHING/LEARNING SETTING* (e.g., flipped classroom)

- Pre-f2f-phase (e.g., international MSc study programs (*PHASE OF EDUCATION*)

- Reduction of diverse knowledge level of learners (e.g., individual speed in learning wrt very complex topics) (*LEARNERS, MOTIVATION*)

- Special situations, e.g., illness of teacher/learner, schedule conflicts (*TEACHING/LEARNING SETTING*)

3. What learning activities are most suited to online teaching?

- Regional/global settings (*TEACHING/LEARNING SETTING*)

- Teaching/Projects involving external partners (*TEACHING/LEARNING SETTING*)

- From handout to information video (*MOTIVATION*)

- (Additional) *casts (*TEACHING/LEARNING SETTING*)

- New teaching/learning formats (*TEACHING/LEARNING SETTING*)

- Helpful data mining / automatic feedback systems (*INFRASTRUCTURE*)

- (High quality) Fundamentals of Mathematics, Physics, …

- Online study programs

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4. How can online content be blended with f2f activities?

- Learning Management Systems (*INFRASTRUCTURE, PREREQUISITS*)

- Digital competencies (*LEARNERS/TEACHERS, PREREQUISITS*)

- Experiences (*LEARNERS/TEACHERS, PREREQUISITS*)

- Acceptance / Further development of study programs (*ORGANISATION, PREREQUISITS*)

Flexibility, Individuality
Range in Teaching/Learning
Future competencies
Community-based