

Validation of forest machine operator competence

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Why validate competence?

- Easier and better recruitment
- Increased pride and jobsatisfaction
- Improve educations
- Increased competence
- Increased productivity



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- A green tracked loader with a bucket attachment is shown in a snowy environment. The loader is positioned in the foreground, with its tracks and yellow wheels visible. The background shows a snow-covered ground and a metal fence. The image is overlaid with a semi-transparent white box containing text.
- What competence is needed to be considered employable as a forwarder operator?
 - How can you test a forwarder operators competences with help of a simulator?

Method from Swedish military education

1. **Describe the work process**
2. **Describe the work tasks**
3. **Describe the competences needed for those tasks**
4. **Define capability**
5. **Operationalize the competences**
6. **Design the tests for those competences**
7. **Test the test**
8. **Iterate on 5-7**



Post-it !

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work descriptions

Expert Walkthrough

EXPERT
INTERVIEWS

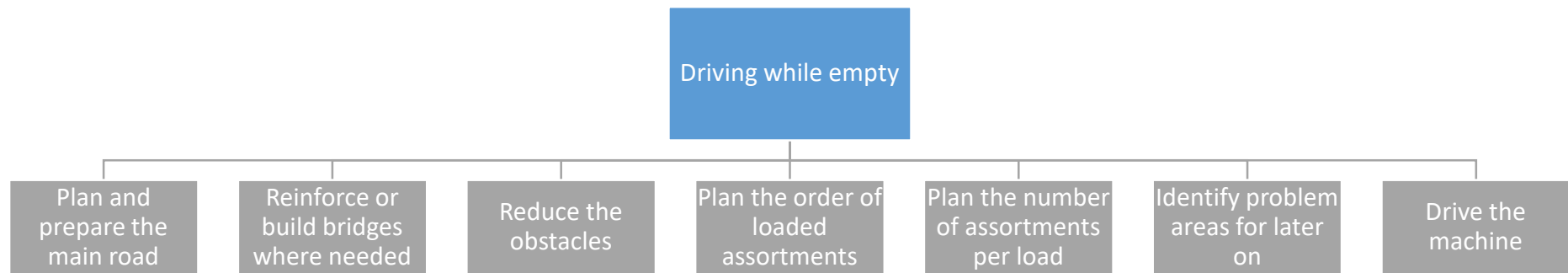
Involve users!

1. Describe the work process

For example:



2. Describe the work tasks



3. Competences for driving while empty

To be able to:

- plan and prepare the main road
- plan the order to forward different assortments
- plan which assortments to load together
- identify problem areas (soft, dangerous, etc.)
- adjust the speed of the forwarder to the terrain
- Choose the shortest distance with good bearing capacity

4. Capability

- A capable operator is "an operator that has gained 5 months of experience after finishing forestry training school".

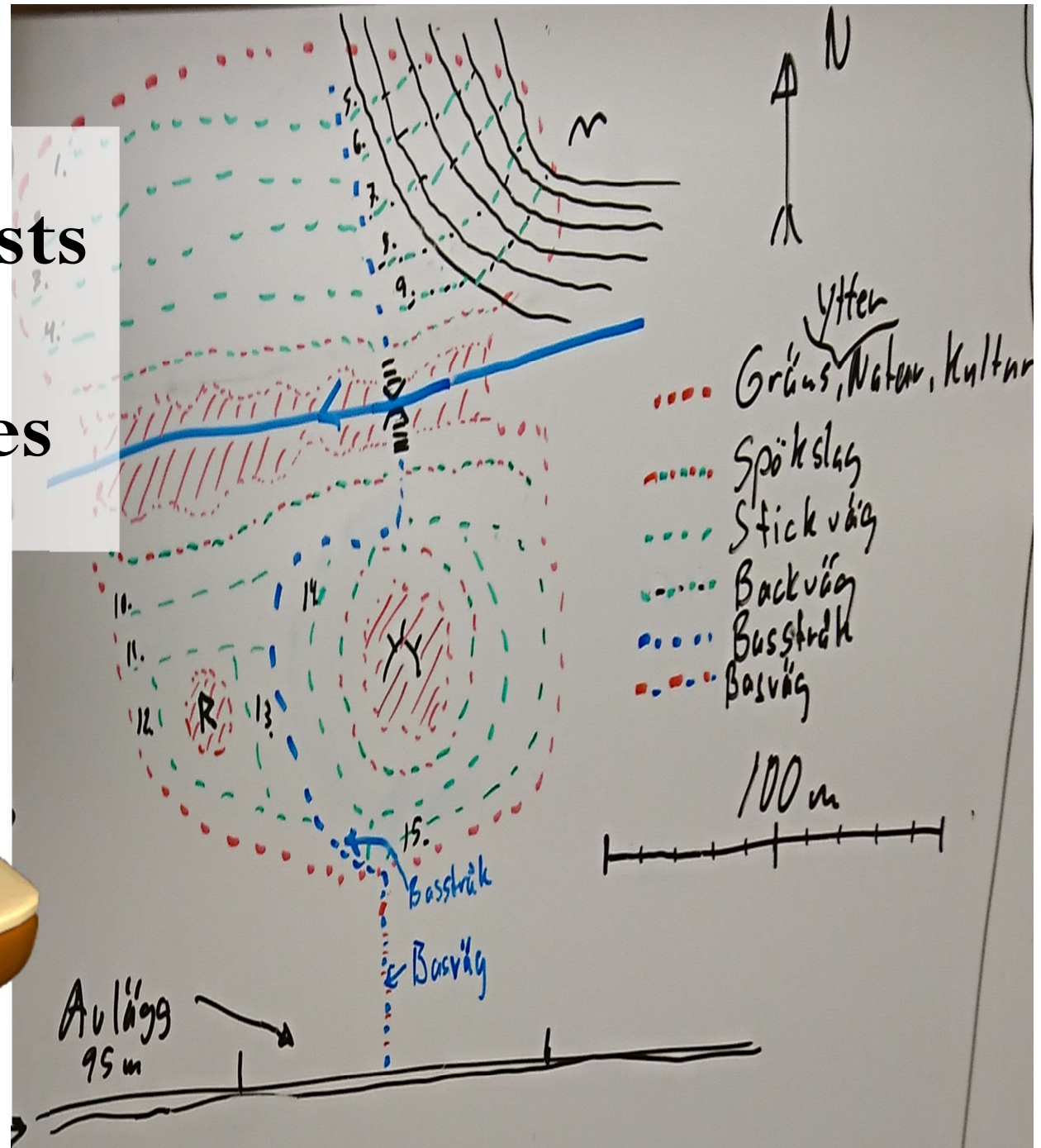


5. Operationalize the competences

- Average speed of maximum X km/h
- Speed is adjusted before obstacles
- No driving in "no-go zones"
- Bridges are used (when present)



6. Design tests for those competences

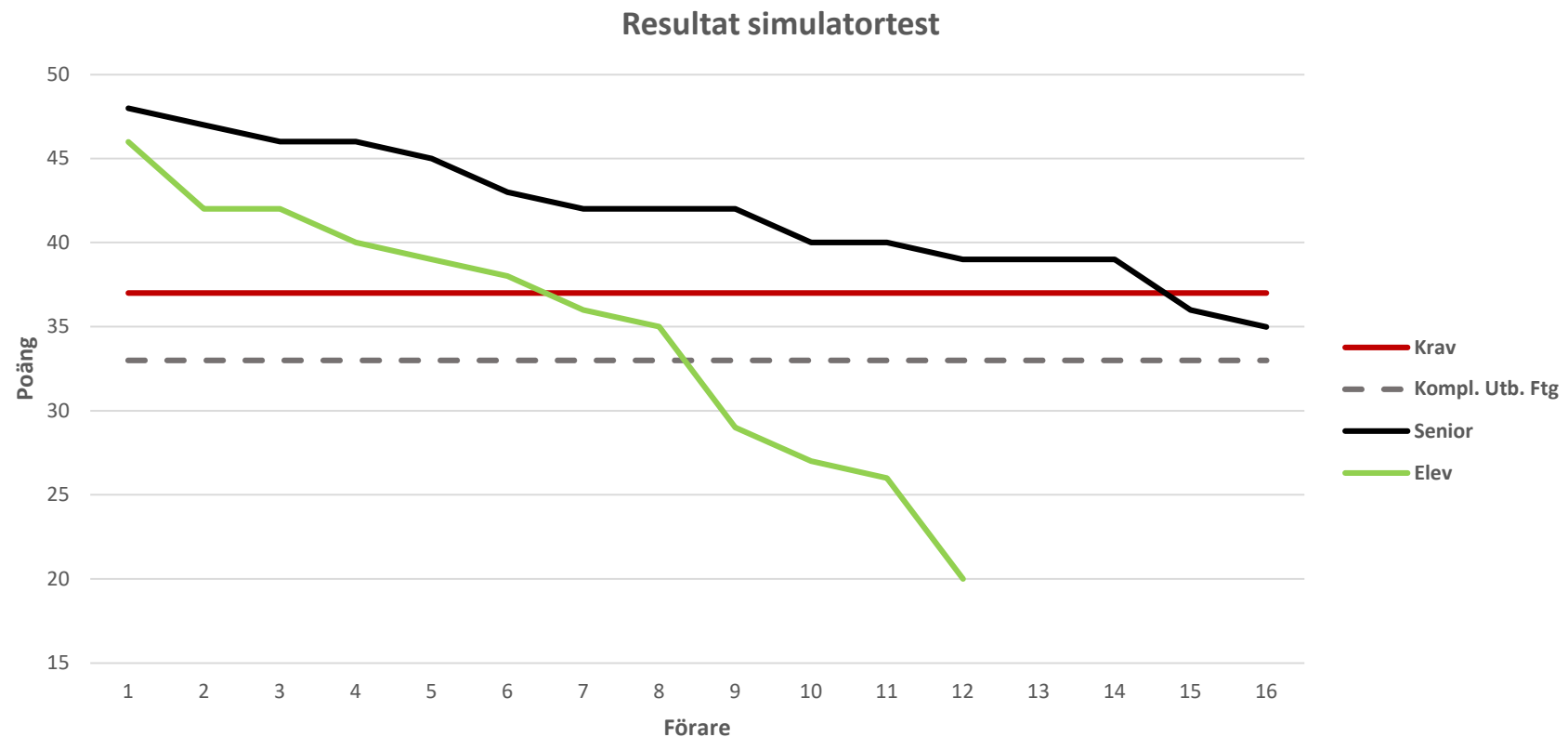


7. Test the test with the users!

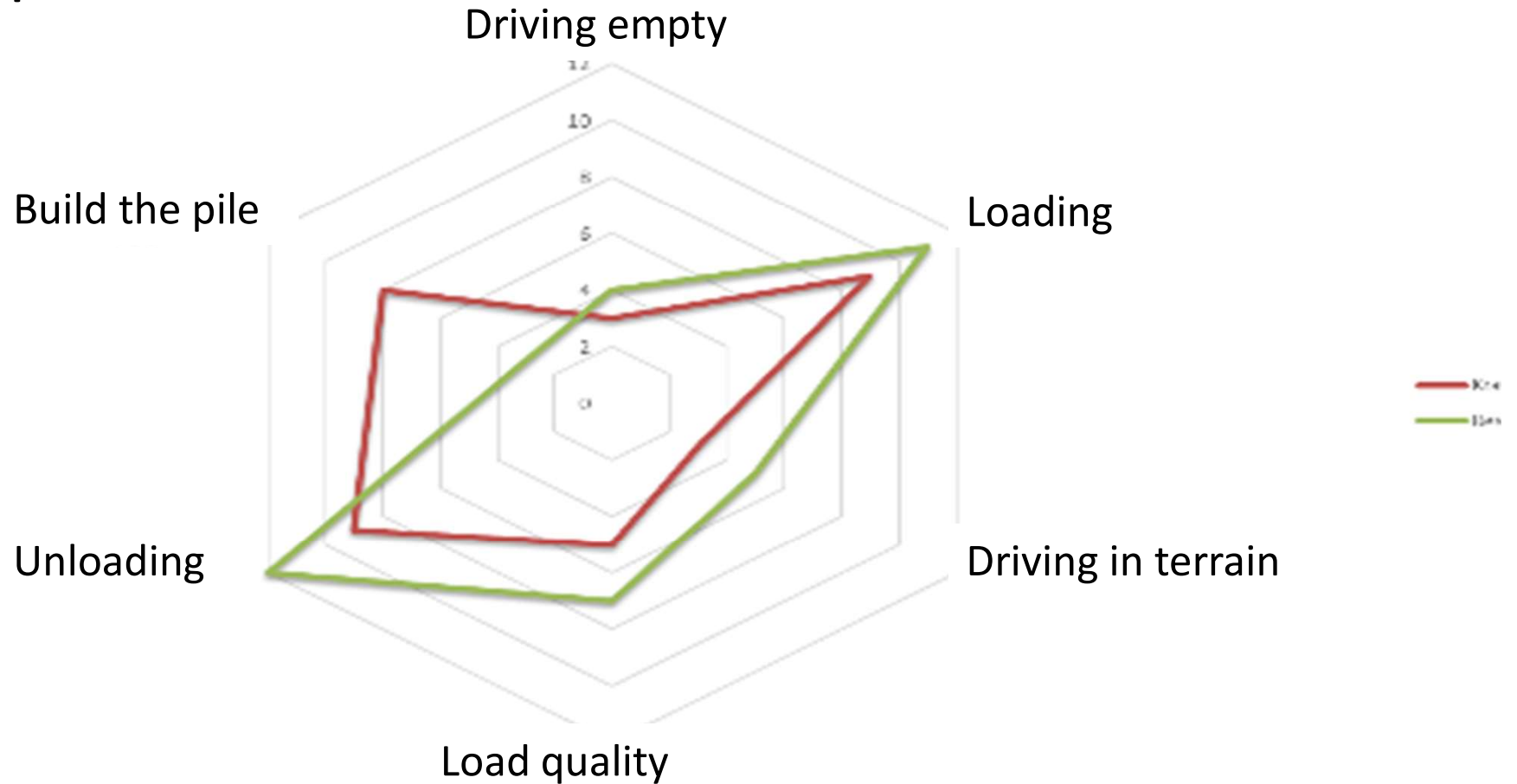


Results

- Our test can identify the skill level of operators in a good way



The test can identify problem areas for each operator



Learnings

- To be able to model and measure individual competence you need a clear description of the competences needed for all tasks in the job.
- Simulators are great tools to verify forestry machine operators competence.



Questions?

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Simulatorparks

Älvdalen



Södra Viken

