Forest Machine Operator Pro

Vocational training model for updating wood harvesting skills

1. Background
2. Core ideas of training model
3. Progress of the FMOP Training Programme
Background (short introduction to subject)

• The vocational skills requirements of forest machine operators are high, and forest work itself becomes more and more complex → need for continuing education for professionals

• Little or no continuing vocational education available for professional operators in Finland

• Differences in productivity between operators can be up to 30% → increasing productivity by training and developing operators’ skills?

• Underrated profession → lack of respect, lack of social relations, demanding working conditions, great responsibility → operators tend to choose other jobs

• One of the most expensive vocational qualifications in Finland → still high rate of drop-outs

• Estimated need for 600 new professionals annually vs. 400 operators qualify → existing operator resources in full use by updating skills?

• Harvesting work needs image lift in Finland → Vocational education has important role in this process
Core ideas (description of the training model)

• Training model was built in joint project with Häme Vocational Institute (HAMI)
• Objective: to plan a flexible training model for updating and upgrading skills of professional forest machine operators (both harvesters and forwarders)
  → Purpose of training is to increase operators’ vocational competencies, resulting to the increased productivity of timber harvesting
• Cooperation with contractors, forest companies and machine manufacturers throughout the project
• Modular structure of studies; individual, competence-based study plan and tailored learning objectives
  → Common training modules + invidual modules for harvester and forwarder operators
  → varying, ”free” modules for contractors, forest industry and machine manufacturers
• Modern learning environments and mobile IT in use
• On-the-job learning, coaching in teams, and versatile assessment of results
• Integrative pedagogy: theory - practice - reflection
Overall structure of the Training Model

- **Productivity and development of working processes**
- **Quality in products and in performance**
- **Communication and cooperation**

**Common modules for training programme (20 credits)**

**Modules for harvester operator (20 credits)**

**Modules for forwarder operator (20 credits)**

**Generic themes (i.e. essential qualifications in modern Working life)**
Implementation of the Training Model
1. **Survey for the training needs**

- Contractor makes the decision to train his operators in the machine operator training programme
- Trainers interview the contractors to map their training needs. If needed, forest companies and machine manufacturers take part in interviews
- The survey will follow the structure of training modules; preliminary planning of modules will be done at this phase
## 2. Survey for setting the level of professional skills

<table>
<thead>
<tr>
<th>Contractor A</th>
<th>Contractor B</th>
<th>Contractor C</th>
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</thead>
<tbody>
<tr>
<td>Operator 1</td>
<td>Operator 4</td>
<td>Operator 10</td>
</tr>
<tr>
<td>Operator 2</td>
<td>Operator 5</td>
<td></td>
</tr>
<tr>
<td>Operator 3</td>
<td>Operator 6</td>
<td>→ Team of ten students with personalised study plans</td>
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<td></td>
<td>Operator 7</td>
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<td></td>
<td>Operator 8</td>
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<td>Operator 9</td>
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- Trainers will interview the operators in order to clarify the level of skills of operators → personal study plans will be written based on contractors’ training needs and current level of skills of operators
- In survey, operators’ harvesting work may be monitored with the help of video recorder
3. Setting up personal study plans and launching the Forest Machine Operator Pro Training Programme

<table>
<thead>
<tr>
<th>Common Modules</th>
<th>Harvester Modules</th>
<th>Forwarder Modules</th>
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<tbody>
<tr>
<td>YHT 1</td>
<td>MOTO 1</td>
<td>MEKU 1</td>
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<tr>
<td>YHT 2</td>
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<td>YHT N</td>
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- Personal study plans based on training needs and skill level survey
- Study modules tailored according to needs of trainees, contractors, machine manufacturers, and forest companies
- Training programme scheduled and resourced
4. Ready to launch the programme

Making use of modern adult teaching methods, best training approaches, and IT-supported learning environments

All we need is true interest to operator training, enthusiasm to develop skills, and the most important - motivated operators to realise our programme
Kiitos!
What is a module?

• Study module ~ Course ~ Study Unit
• Thematic entity (1-4 credits, 40 – 160 hrs), including e.g. contact teaching, practical training, and exercises
• Description of a Study Module:
  
  ▪ Y4: Energy wood harvesting (2 credits)
  ▪ Core contents: supply chains of fuel wood (thinnings, cutting residue, stumps), quality management, other generic and new issues on subject + tailored session by contractor / industry
  ▪ Module implementation: 2 contact days at TTS Campus (15 h), on-the-job training and exercises (40 h), self-learning (20 h), + feedback, evaluation and conclusions on results (5 h) \( \Rightarrow \) 80 h = 2 credits