Vocational education and training at school and at the workplace

The Icelandic case

Elsa Eiríksdóttir

Jón Torfi Jónasson

School of Education, University of Iceland

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The dual system in VET

The dual system of vocational education and training (VET) is common, but can be implemented in very different ways

1. Duration of the work-based learning period

2. Integration of the periods of work-based learning and school-based learning

The dual system in VET

The goal here is to

– consider some arguments for different variations in the VET dual system

– look at how this system is implemented in Iceland according to the curricula of the certified trades

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Learning at the workplace: Definitions

Work-based learning

Programs providing opportunities to achieve employment related competencies in the workplace, undertaken in conjunction with school-based learning

Work-based training

Training provided by an organization primarily for its own employees

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Learning at the workplace: Goals

Work-based learning

The goal is education for a vocation where the work-based part constitutes an important opportunity for students to become familiar with the work in their chosen field and train on real tasks, often much more varied than in any particular job

Work-based training

The goal is education for a particular job and a particular organization, and involves both a situated training element and development as in any professional development

Learning at the workplace

It is easier said than done marking where work-based learning stops and work-based training starts…

…especially when the workplace period of a study program is placed at the end of the school-based program

The focus here is on work-based learning

Learning in a dual system

Research shows school-based and work-based learning is different but complementary, in terms of content, methods, and goals of the two educational settings

This difference can create a difficulty for students to transfer what is learned at school to the workplace and vice versa

Learning in a dual system

Focus at school

- Learning process
- Theory
- Basic skills
- Reflection
- Overview of field and understanding of tasks
- Communication and collaboration between students

Focus at workplace

- Work and process outcomes and coherence
- Particular competencies
- Productivity and profit
- Client service
- Problem-solving skills and efficacy
- Professional identity

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Learning in a dual system

Important to help students take advantage of the complementary learning opportunities at the two different settings

No less important to simultaneously assist students in transferring learning between the two settings

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The dual system in Iceland

How is the dual system implemented in Iceland?

Looked at the curricula for 34 certified trades
- A journeyman's exam requirement for work as an expert in a field (regulated trades)
- Curricula published 2001-2009

The implementation varied in terms of duration of work-based learning and conditions for integrating work-based and school-based learning

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Duration of work-based learning

Duration ranges from 24 to 126 weeks

$M = 66$ weeks, $SD = 31$ weeks

Difference of 102 weeks or almost two years

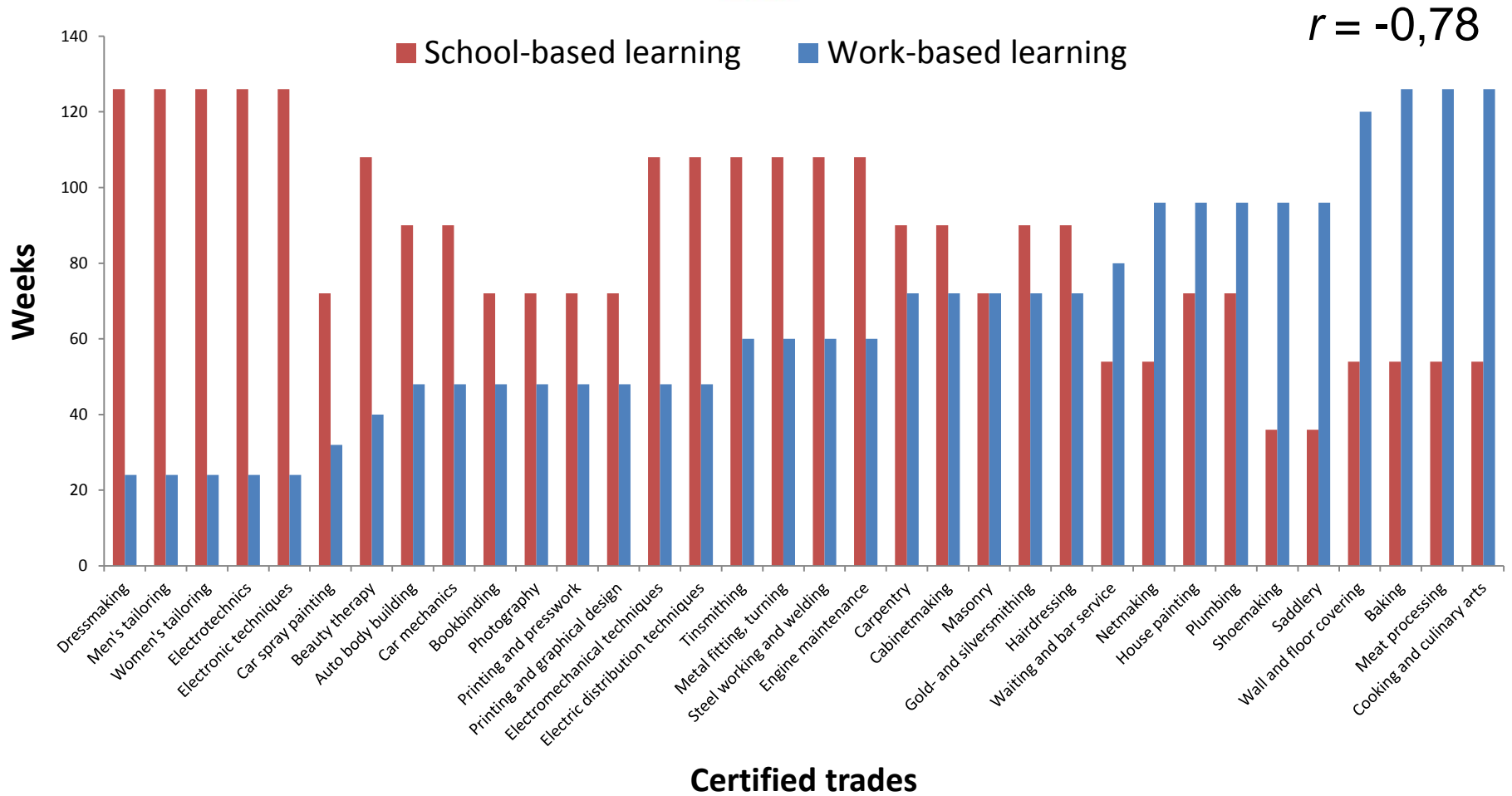Proportion ranges from 16% to 73% of the program as a whole

Categorizing the duration

Short   (24-48 weeks)   = 15 certified trades

Medium   (60-80 weeks)   = 10 certified trades

Long   (96-126 weeks)   = 9 certified trades

Source: Helen Gray

Duration of work-based learning

Programs range from predominantly school-based to predominantly work-based

The large range of work-based learning duration indicates

– Independent development in different trades
– Different emphasis in terms of the goals of work-based training

School-based learning

Increased formalization of education has resulted in a tendency to move VET from the workplace into the school environment.

Some reasons for this include:

– Initial training cost, especially for basic skills and competencies

– Rate of change in the field requiring rapid updating in a wide range of arenas; difficult to do when increased specialization in a field

– Specialization within the organizations narrows training options

– Ensuring renewal and openness within a field

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Work-based learning

Authentic work setting is still an immensely valuable place for education and training

Some reasons for this include:

– Providing students with sense of place and purpose; introduction to relevant jobs and the world of work

– Systematic observation and reflection on practice

– Increasing transfer of learning by creating opportunities for transfer

– Induction; development of expertise for the job at the job

Duration of work-based learning

Both school-based learning and work-based learning represent an important educational venue in VET and the dual system should provide the necessary learning opportunities…

…but it also matters how the periods at school and at the workplace are integrated

Integrating school- and work-based learning

Experts have recommended integration based on short intervals and moving between the two settings regularly and rapidly

- Allows students to apply theoretical knowledge immediately and also reflect on work experience within the school context

- Assists transfer between the two settings

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Integrating school- and work-based learning

Using the curricula for the 34 trades, we looked at conditions specifying the integration of the school-based and work-based learning periods

Could categorize conditions by two dimensions:
1. Conditions set for the start of the program
2. Conditions set for the end of the program

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Integrating school- and work-based learning

	Ends at school	Ends at the workplace	Ends either at school or workplace
Begins at school	8	12	7
Begins at the workplace	0	0	0
Begins either at school or workplace	4	0	3

Integrating school- and work-based learning

	Ends at school	Ends at the workplace	Ends either at school or workplace	
Begins at school	8	12	7	**= 27**
Begins at the workplace	0	0	0	**= 0**
Begins either at school or workplace	4	0	3	

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Integrating school- and work-based learning

	Ends at school	Ends at the workplace	Ends either at school or workplace
Begins at school	8	12	7
Begins at the workplace	0	0	0
Begins either at school or workplace	4	0	3

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Starting the program at school

The most likely reason for this is the cost of initial training and the requirement that basic skills and competencies are best trained at schools

Valid arguments, but there are also reasons why initial work-based learning could be beneficial

- provide students with a sense of place
- introduce students to relevant jobs and the world of work

Ending the program at school

The last semester is considered a culmination of the program and the most commonly provided reason is to help prepare the student for the journeyman's exam

- Teachers can evaluate the training so far and cover any gaps in knowledge and skills

- Prepares the students explicitly for the exam in a group setting

- Students compare to their peers; get a sense of variability of experiences and differences in specialization in the field

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Ending the program at the workplace

A common argument here is induction; after completing the school-based learning the student has the knowledge and skills to do the job – now the time comes for the student to put it to use in a real-life setting with real-life tasks

- Induction is important; entry into the job market
- Overlap with work-based training; must consider the pedagogical value and responsibility of the organization
- Specialization in a setting within the field

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Conclusions

The point of departure: The two settings in the dual system in VET have different and complementary benefits

The Icelandic case shows a wide variety of implementations reflecting emphasis on different arguments concerning the two educational venues

Necessary to consider the arguments openly as the implementation is an inherent prioritization

Conclusions

It is time to rethink the relationship between school and workplace, using well-grounded knowledge about

- – learning, reflection and motivation
- – transfer of learning
- – skill acquisition and the development of expertise

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Conclusions

The next step is to get information on the details of the different implementation as it really plays out:

- – What do the students actually do?
- – What are the benefits and drawbacks according to different stakeholders?

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Thank you

Elsa Eiríksdóttir, elsae@hi.is

Jón Torfi Jónasson, jtj@hi.is

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