

# Competence Based Vocational Education and Student Working Readiness: Evidence from Indonesia Agricultural Education

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Presented at



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# Objectives

- **To identify the current CBE condition of agricultural vocational education in Indonesia based on the principles of CBE.**
- **To investigate student's perception on CBE learning environment and its relation with student working readiness**

# Methodology

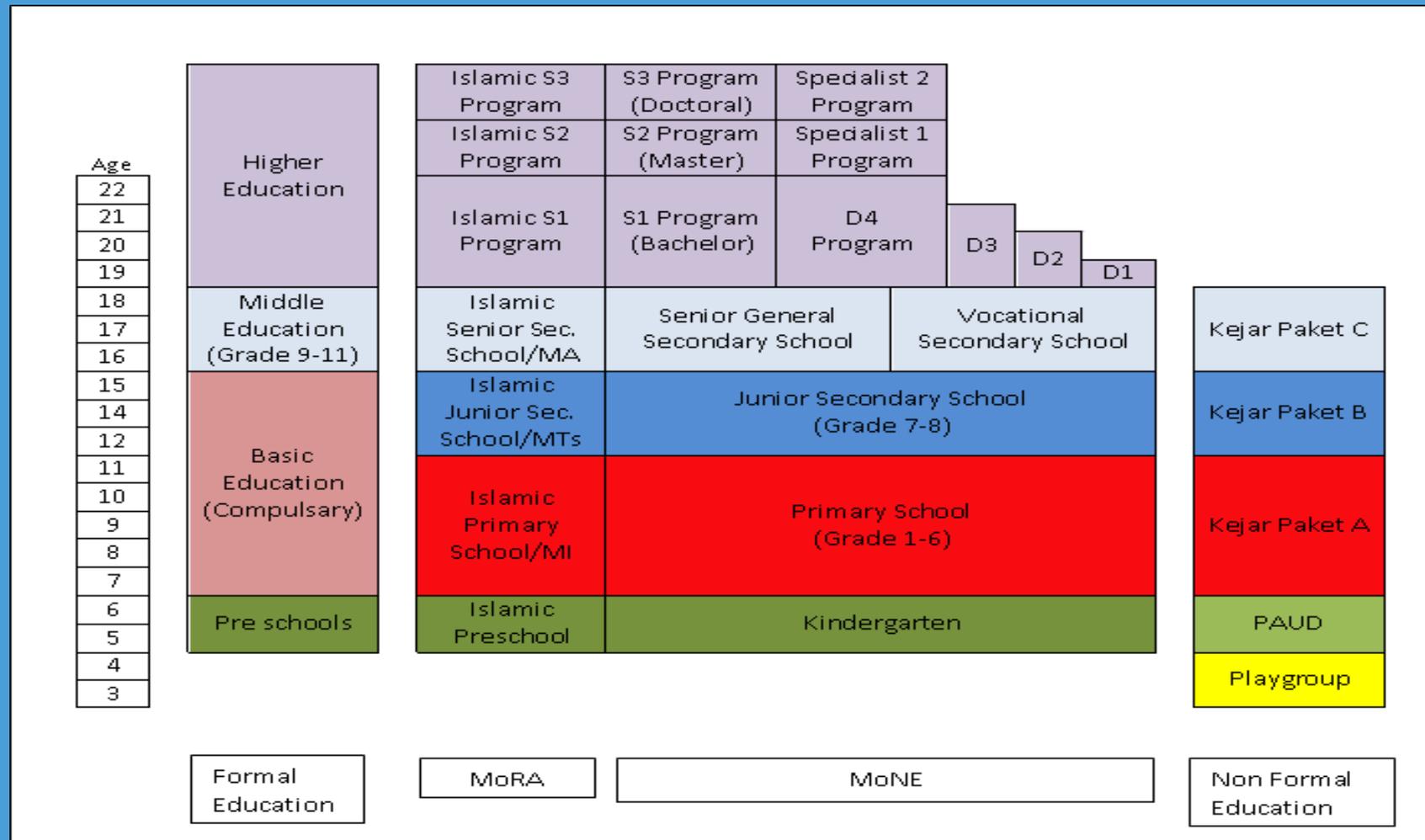
- A cross-sectional survey design
- Data collected January – March 2012
- 1289 vocational students (SMK) (F=64.7%; age M=17.5) from 41 agricultural schools filled a questionnaire.
- Students taken from food processing technology study program in their 3rd year learning trajectory.
- A 5-point likert scale of IPCCBE (36 items) was used to see students' perception of CBE and (6 items) for self-rating of working readiness.
- 1 (strongly disagree) – 5 (strongly agree)

# Context of the study

- Agricultural sector and related industries contributes to 15.3 % of the nation's economy (BPS, 2011).
- Agricultural workforce in Indonesia accounted for 42.47 million people working in agricultural sector aged 15 years old and above (172,070,339)
- Total habitants 237,641,326 (BPS, 2011).



# Indonesia education system



# Context

- Competence-based education (CBE) has become a dominant trend in vocational education and training (VET) in several countries due to the expected decrease of problems in the transition from school to work (Biemans et. al., 2004; Wesselink et. al, 2007; Biemans et. al 2009).
- The concept of competence becomes the basis of the (re)design of VET.
- Education Act No. 20 year 2003
- Curriculum 2004: competence based curriculum
- Agricultural schools (SMK) in 2010: 1060 with 148.492 students from various study programmes. Total SMK 8.339 (MoNE, 2011)



# CBE Principles

Sturring et al (2011) validated the Wesselink et al (2007) framework of CBE principles

The study programme is based on core tasks, working processes and competences (the qualification profile).

Complex vocational core problems are central.

Learning activities take place in different concrete, meaningful vocational situations.

Knowledge, skills and attitudes are integrated in learning and assessment.

Students are regularly assessed for variously purposes

Students are challenged to reflect on their own learning

The study programme is structured in such a way that the students increasingly self-steer their learning.

The study programme is flexible.

The guidance is adjusted to the learning needs of the students

In the study programme attention is paid to learning, career and citizenship competences.



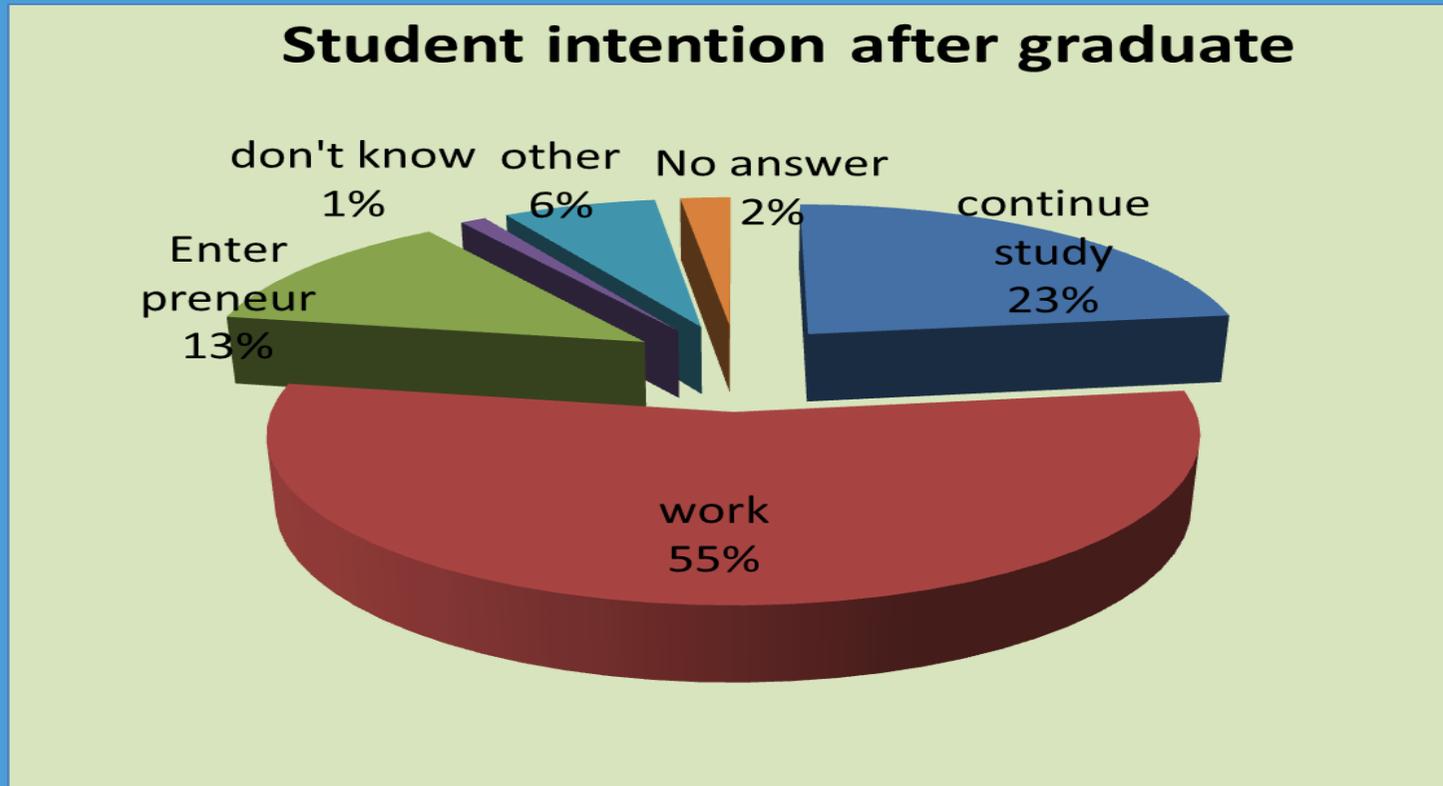
# Instrumentation

## Example of questions

<i>Competentiveness</i>	
variation	Learning activities take place on different situations ( <i>lecturing, group work, individual assignment</i> ) and locations ( <i>school, laboratory, internship</i> ).
authenticity	The learning environment corresponds to my future work environment.
Teachers expertise	Teachers have up to date professional knowledge about the labour market and jobs relevant for this education programme.
<i>Working readiness</i>	
Feeling capable	I am sure that I will be able to do jobs that are relevant to the competencies I learnt at school.
Confident of ready to work	Supported by my knowledge, skill and experience background received from my study, I feel confident to start to work.



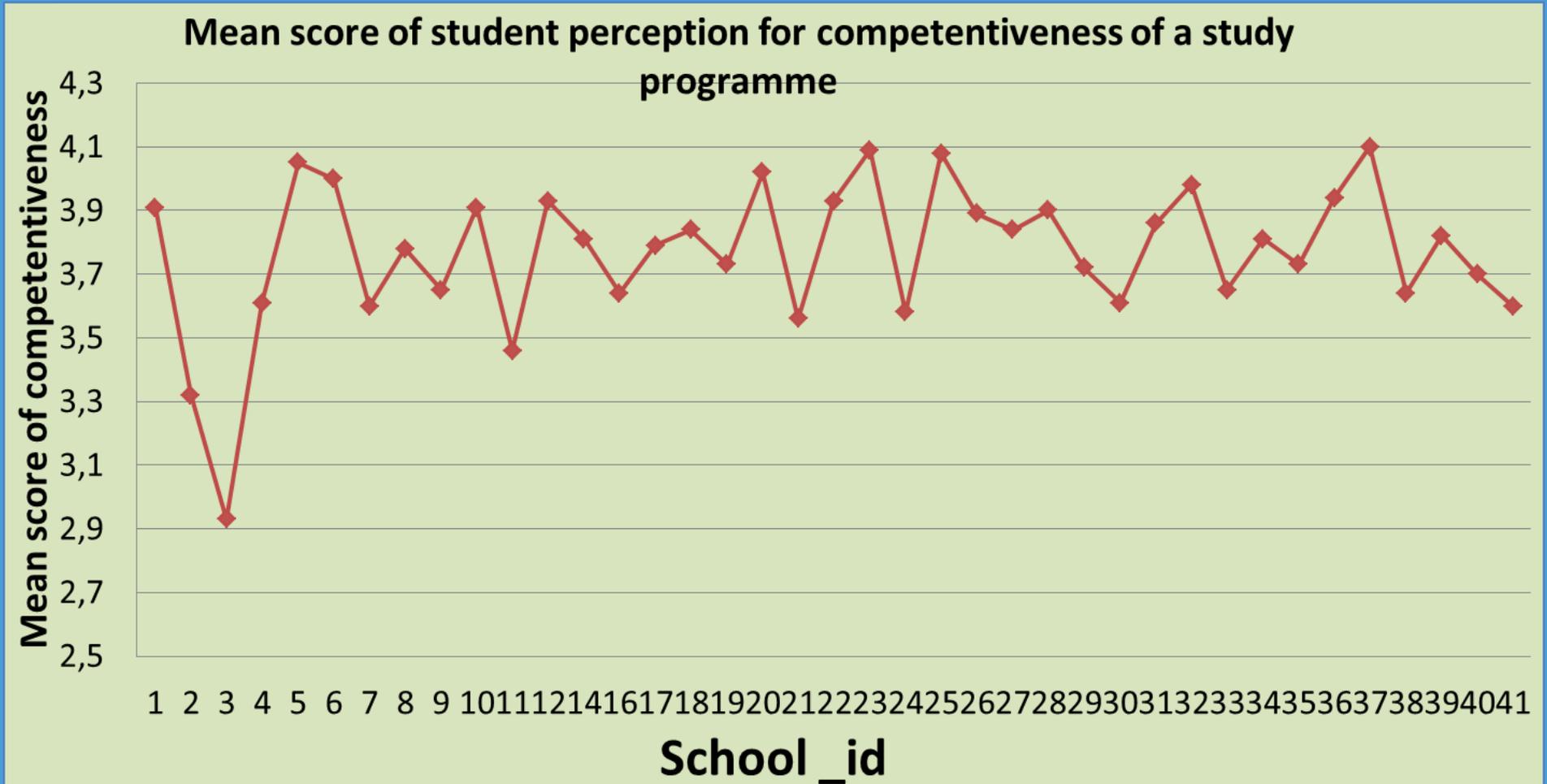
# Student intention (N = 1289)



# Results

- ✓ Overall mean score for each CBE principle were above 3, except for principle of 'flexibility', students rated low score on this principle.
- ✓ Competentiveness (*mean score for 10 principle*)  $M = 3.74$ ;  $SD = .42$  while working readiness  $M = 4.04$ ;  $SD = .53$
- ✓ There was a significant relationship between students rating of competentiveness and working readiness ( $r = .612$ ,  $p$  (one tailed)  $< .001$ ).

# Results



# Conclusions

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- Students are able to recognize implementation of CBE principles in the study programme.
- There is a positive correlation between CBE principle and working readiness based on student perception.
- This supports the argumentation that CBE has a strong position in vocational education (Biemans et. al., 2004; Wesselink et. al, 2007; Biemans et. al 2009, Kouwenhoven, 2011).
- Policymakers might use the results finding as an input for improving vocational education curriculum and its learning environment.

# Current Issues in Indonesia TVET

- The government put efforts to expand number of vocational schools (SMKs). the ratio general : vocational would be 30:70 in 2015.
- Moving to compulsory education from 9 years to 12 years
- In the beginning of 2012, the government established Indonesian National Standard of Qualification Framework



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Thank you for  
your attention

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[zainzoan@yahoo.com](mailto:zainzoan@yahoo.com)

[zainun.misbah@wur.nl](mailto:zainun.misbah@wur.nl)

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