

## **Competence and Higher Education**

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# The competence train is riding and everybody wants to ride along





# Many educational experts are very curious about competence development





# Factors that increase educational effectiveness

- Contact student teacher
- Cooperative learning
- High expectations
- Time on task
- Timely constructive feedback

## What does the concept of competence add?





## **Competence:**

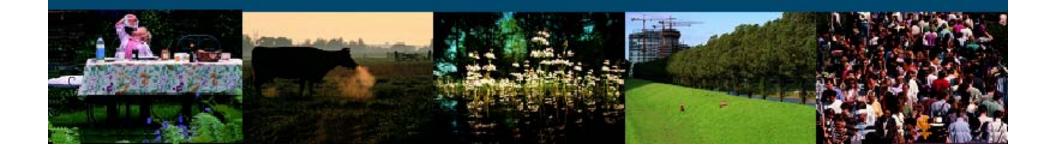
Directs educational aims of programs and outcomes of courses.





## **Competence:**

## Old wine in new barrels???





## History of the concept of competence

- Old-Dutch 1504
- French 'compétent'
- Latin
  - 'competens': being able to; allowed by law/regualtion
  - 'competentia': (cap)ability and permission





## Plato used the concept in 380 BCE





## The Code of Hammurabi (1792-1750 BCE) points at his competence





## Competence: a two-face concept

- Sufficient performative proficiency
  - Minimal activity capability
  - Ability
  - Can do
- Formalized permissive authorization
  - Judicial, institutional or organizational regulated action permission
  - Power-responsibility
  - May do





## Competence in Europe

- EU Competence management in organizations
- UK Competence in NVQs
- France Bilan de compétences
- Germany Handlungskompetenz
- Belgium Guidance
- Portugal Recognition, Validation and Certication of Competencies
- Netherlands Competence-based Qualification Structure





### Public authority, Italy, 2004







### Core competence of the organisation







### Center for IT consultancy, support, systems management, NL



links contact

ZOEKEN bij Google

Betrouwbare automatisering is van levensbelang voor uw organisatie. Niet alleen de computer op uw bureau, maar alles wat daarmee samenhangt! Zoals bijvoorbeeld de mailserver, fileserver, internetverbinding en het netwerk.

Het gaat er niet alleen om dat de hard -en software aanwezig zijn, maar vooral dat alles een geheel vormt. Een betrouwbaar geheel dat werkt.

Wij adviseren u en bieden ondersteuning bij het opzetten van een betrouwbaar automatiseringssyteem. Wij beheren en onderhouden uw totale automatisering, desgewenst in samenwerking met uw eigen mensen.



#### Consultancy

Een onpartijdig advies, daar kunt u op rekene Doordat wij geen hard -en software leveren k u ervan uitgaan dat onze adviezen slechts ger zijn op het verbeteren van uw automatisering

#### Support

Vakkundige support is één van de fundament van uw automatisering. Professioneel support verlenen is ons vak. Hierbij geldt dat wij alles weten van de Mac, met name in een multiplat omgeving.

#### Beheer

Structureel beheer is als onderhoud aan een a Door regelmatig onderhoud worden uw syster betrouwbaarder en neemt het aantal incidente aantoonbaar af.

NAVIGATIE

...





Neem contact met mij op

Vul hier uw naam en telefoonnum en wij nemen z.s.m. contact met u

naam

telefoonnummer

Competence.nl @ 2004







В



#### **Marketing corporate social responsibility**

### The 'World of difference' – sponsoring Welfare

'The game starts at 08/03/05. The term for submission closes at 12/04/05 at 17:00. Per person only one proposal Can be submitted. It regards a

### competence game;

chance does not play a role in determining the winners. Every proposal shall be independently evaluated as to its humanitarian and charitative value and feasibility.'



Wil jij er ook écht iets aan doen?









# <u>Promoting Life Long Learning – Recognition, Validation and Certication of Competenties, PT</u>

#### QCA III 2000-2006

INDICAÇÃO DO PROGRAMA OPERACIONAL



#### DESIGNAÇÃO DA MEDIDA DO PO EM QUE SE ENQUADRA O PROJECTO

Medida 4 - Educação e Formação ao Longo da Vida

Acção 4.1. - Certificação de conhecimentos/ competências adquiridas ao longo da vida

#### DESIGNAÇÃO DO PROJECTO FSE:



Sistema Nacional de Reconhecimento Validação e Certificação de Competências (RVCC)

#### Objectivos do Projecto e outros elementos considerados relevantes para a descrição do Projecto

O Sistema Nacional RVCC é promovido a partir da instalação de uma rede de Centros RVCC que se organizam a partir de três eixos de intervenção: reconhecimento de competências, validação e certificação. Os

#### Grupo-alvo do Projecto

Adultos maiores de 18 anos, que não possuem o 9º ano de escolaridade. Privilegiam-se os activos, empregados e desempregados, os activos desempregados de longa duração e as mulheres sem actividade profissional.





#### **Personal Competence Assessment and Development**

FORMATION, MODE D'EMPLOI

### TIRER PARTI D'UN BILAN DE COMPETENCES



Vous souhaitez donner un nouvel élan à votre vie professionnelle ? Un bilan de compétences vous aidera à faire le point et à définir un projet. Voici quelques conseils pour profiter pleinement de ce dispositif. •

Lydie Colders





**Guidance: Competence and Occupation Directory for the Labour Market,** 

**BE** 



Voor wie werk zoekt

Vind een job
Jobspot
Werk en gemeente
Schrijf je in
Plaats je cv
Mail op Maat

WerkinZicht

Solliciteren Vind een beroep

Beroepenfiches Beroepenfilms Beroepsoriëntatie Beroepstesten

Internationaal VDAB-diensten Pas afgestudeerd Studentenjobs

Voor wie meer wil

Werklinks MagEzine Discussieforum Stuur een e-kaart Projecten

#### Vind een beroep

Ben je op zoek naar informatie over beroepen dan ben je hier aan het juiste adres. We bieden 3 hulpmiddelen om jouw ideale beroep te ontdekken:



#### Beroepenfiches

Informatie over meer dan 550 beroepen vind je in CO.BR.A. (COmpetentie- en BeroepenRepertorium voor de Arbeidsmarkt - meer info). Elke beroepenfiche bevat een beschrijving, basisvereisten en specifieke competenties nodig voor het beroep, producten en werkdomeinen en info over de arbeidsomstandigheden.

Je kan zoeken via categorie of via trefwoord.



#### Beroepenfilms

VDAB maakte maar liefst 107 <u>beroepenfilms</u>. Elk filmpje toont een beroep in al zijn facetten: een werknemer vertelt wat de job in de praktijk inhoudt en wat de verwachtingen van de werkgever zijn.



#### Beroepsoriëntatie

Nieuwsgierig welk beroep bij je past? De <u>VDAB-beroepsoriëntatie</u> helpt je op weg. Door het invullen van deze **test** kom je te weten welke beroepen er

http://vdab.be/cobra/





### **Training center for female craft workers**

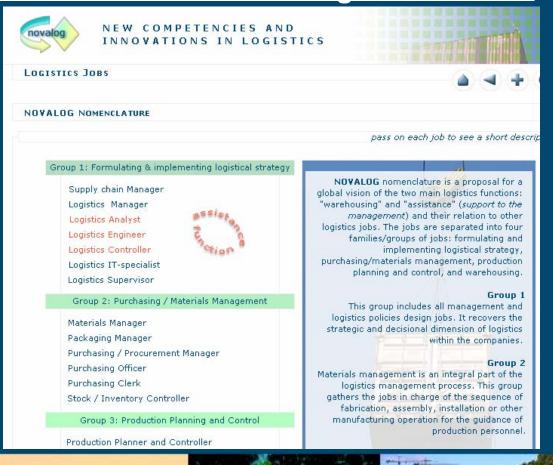


Germany, 2005





#### New Competences and Innovations in Logistics at EU level











#### **Computer Competence, FR**





#### Organisation for the Development of a Competence Field

## National Center for Cultural Competence

Georgetown University Center for Child and Human Development University Center for Excellence in Developmental Disabilities

NCCC Home

Resource Database

Consultants

Web Links

**Products & Tools** 

En Español

The mission of the National Center for Cultural Competence (NCCC) is to increase the capacity of health and mental health programs to design implement, and evaluate culturally and linguistically competent service delivery systems.

Conceptual Frameworks/Models, Guiding Values and Principles

Definitions of Cultural and Linguistic Competence

More about the NCCC

Tools and Processes for Self-Assessment

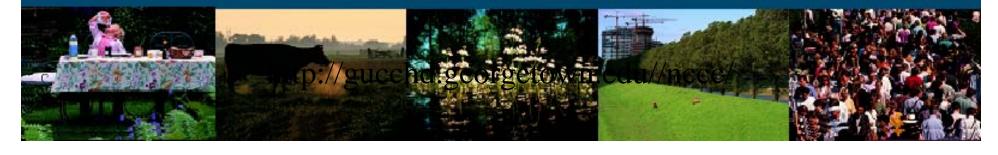
#### **ANNOUNCEMENTS**

Recent products:

<u>Cultural Competence: It All</u> Starts at the Front Desk

Cultural Competence Health Practitioner Assessment (CCHPA)

<u>Bridging the Cultural Divide in</u> <u>Health Care Settings: The</u>





#### **Information Literacy Competence Standard**



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#### Information Literacy Competency Standards for Higher Education

These standards were reviewed by the ACRL Standards Committee and approved by the Board of Directors of the Association of College and Research Libraries (ACRL) on January 18, 2000, at the Midwinter Meeting of the American Library Association in San Antonio, Texas. These standards were also endorsed by the American Association for Higher Education (October 1999) and the Council of Independent Colleges (February 2004). A PDF of this document is available.









#### **National Organization for Competence Assurance**







## **Examples of fields**

- Academic competence
- Professional competence
- Personal competence
- Career competence
- Technical competence
- Task competence
- Behavioral competence

- IT competence
- Cultural competence
- Communication competence
- Information literacy competence
- Entrepreneurial competence
- Etc.





## Why Competency-based Education?

- Capability versus diploma
- Employability as goal
- Improvement of alignment of education and work
- Recognition of informally acquired competencies
- Learning path independent assessment
- Independent functioning in society
- Capability to cope with constant and profound change

The knowledge world is not enough







## Is knowledge not more important?

- Knowledge = basis
- Competence = additional, integrative
  - is a combination of certification and capability
  - refers to being able to apply knowledge in complex reality
  - is directly connected with successful performance
  - is aligned with the HRM practice of companies
  - is aimed at employability
  - comprises behavioral component and is linked to role
  - is context specific and comprises attitudinal aspect
  - comprises insight and reflection on own behaviour





## Principles of Competence-based Education

- The competencies, which are the basis for the study program, are defined.
- Professional core problems are the organising unit for (re)designing the curriculum (learning and assessment).
- Competence-development of students is assessed before, during and after the learning process.
- Learning activities take place in different authentic situations.







## Principles of Competence-based Education

- In learning and assessment processes, knowledge, skills and attitudes are integrated.
- Self-responsibility and (self)reflection of students are stimulated.
- Teachers both in school and practice fulfil their role as coach and expert in balance.
- A basis is realised for a lifelong learning attitude for students.







## **Matrix for Competence-based education**

Principle	not	starting	partial	completely
Competencies defined	0	0	0	0
Core problems identified	0	0	0	0
Assessment aligned	0	0	0	0
Authentic learning used	0	0	0	0
Integration realized	0	0	0	0
Self responsibility stim'd	0	0	0	0
Coaching role practised	0	0	0	0
Lifelong learning prom'd	0	0	0	0







## **Experiences of teachers**

- Formulating of core tasks is difficult
- More attention for intake is necessary
- The link between education and practice of work is good
- The teacher finds the role as coach very difficult
- There is fear of programs that are not consistent
- Learners do not always see the added value of the concept of competency
- Fear for bureaucratic use
- Functionality of assessments vary
- Assessments are more labour intensive













# What has Wageningen University to do with the concept of competence?

- External legitimation: not necessarily
- Internal educational policy making: implementation





# What can Wageningen University do with competence?

- Making program design transparent
- Re-programming of competence development
- Using competencies as linking pin between
  - final qualifications
  - learning goals
  - learning outcomes
  - program and course content
  - program and course organization and
  - assessment





# What is Wageningen University doing regarding competence? - The piano

- Division between knowledge and competence in a performance context is impossible.
- For teaching and learning the division can be functional.
- A lot of subject-specific learning is needed, without direct implementation
- However: the relevance of this knowledge must be clear to the student





## <u>Competence methodology: professional</u> <u>roles – outputs - competencies</u>

- Professionals have roles (researcher, designer, etc.)
- They produce outputs
- These are products or services (articles, advise, etc.)
- To produce or deliver these, they need to be competent
- Competence = knowledge, skills and attitudes as performance requirements





# Which competencies are defined for Wageningen University?

### In piano:

- Roles
  - Researcher
  - Designer
  - Communicator
- Perspectives
  - Scientific approach
  - Multidisciplinarity
  - Social context
  - International

### What about?

- Roles
  - Entrepreneur
  - Policy expert
  - Teacher
- Perspectives
  - Poverty
  - Sustainability
  - Ethics
  - Safety









# **How** can Wageningen University proceed with competencies?

- Define core competencies for WU Bsc and Msc
- Define specific program competencies
- Define specific course competencies
- Make competency map by program component
- Map the competencies in the program
- Decide upon further competence alignment





# Information on competency map by program component?

### **E.g.:**

For each competency included:

- Learning time allocated
- Achievement level intended (or mastery level)
- Type of competence assessment included
- Explicit-implicit competence development
- Integrated-separate learning time
- Type of learning task
- Organization of learning

### These maps can be aggregated in program maps





## Assessment criteria

- Authentic assessment
- Formative assessment
- Multi-rater assessment
- Pre-assessment
- Integrated SKA-assessment
- Stimulating self-responsibility





## **Difficulties**

- Structural cooperation with occupational field
- Integrating SKAs in assessment
- Self-responsibility in assessment
- Multi-measurement assessment
- Applying formative assessment





# **Experiences**

and perspectives









# A uniform set of competencies per final qualification?

- There is no one-to-one relationship between competence and performance
  - e.g. how to write an article
- Neither is there a unique relationship between competencies and final qualifications
  - e.g. being creative and being able to do research
- Competencies are context-specific
  - e.g. reflection for researchers and communicators can differ
- Defining competencies is a deliberative process
  - e.g. defining competencies for research; that depends a lot on the research paradigms that will be included and levels of elaboration to be achieved





## Monodisciplinary knowledge

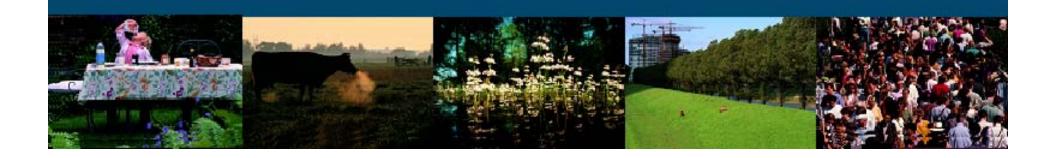
- Is absolutely an essential part of academic education
- Can be seen as an final qualification
- There should be enough room for pure knowledge in the curriculum
- It is the foundation of academic education
- However: students have to learn to apply this
   Knowledge in a meaningful context





# Multidisciplinarity and international context

- These are separate dimensions which hold for all roles
  - e.g. being aware of international dimension in food security management holds for designers and researchers
- They may differ by specific output by role
  - e.g. international communication for researchers (who present academic paper) and entrepreneurs (who want to make a deal)





## Competence and knowledge

- Pure knowledge mastery is not the same as competence
  - e.g. the mere understanding a specific micro-economic theory does not yet mean that the student is competent in this field
- Competence regarding knowledge means
   being able to apply knowledge in a specific situation
  - if the student can apply this theory in solving an economic problem in a business environment, he/she is competent in this field





## Final qualification and competence

- Final qualification is a bit odd in the perspective of Life
   Long Learning
- They can be seen as final goals of the program, or general competencies (the graduate is able to ... is qualified to ... allowed to ...)
- Competencies are specifications of the final qualifications
- Different competencies are needed for different roles of graduates
- One set of competencies (dictionary) is needed for WU





## Learning goals and competencies

- The methodology of formulating learning goals dates back to the fifties of the 20<sup>th</sup> century
- The risk is that learning goals get too specific
- Define affordances for competence development in programs and courses
- Allocate time for competence development
- Assess and monitor competence development

