Development of a model of competencies required for sustainable economic performance among apprentices in business education

(KONWIKA: Entwicklung und Prüfung eines Kompetenzmodells für ein nachhaltiges Wirtschaften kaufmännischer Auszubildender)

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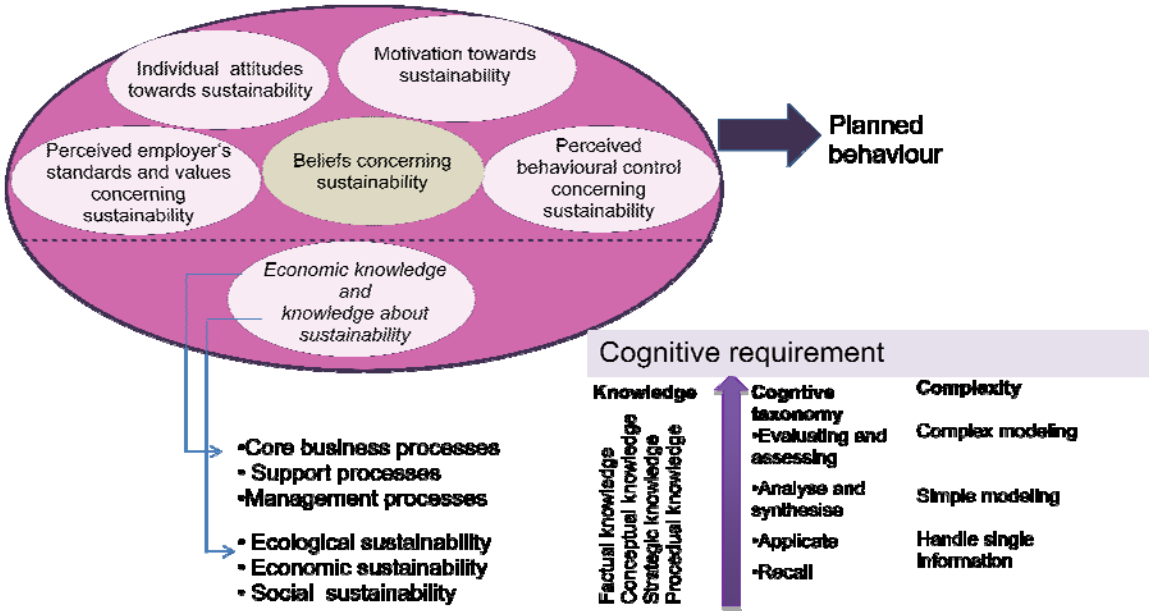
In recent years, there has been a growing awareness of the significance of education for sustainable development (cf. Yen-Chun, Shihping, Lopin & Wen-Hsiung, 2010), but there continues to exist much theoretical and empirical uncertainty with regard to the problem of measuring the competencies required for sustainable economic performance in commercial contexts, in particular, as far as vocational education and training in this field are concerned. Thus, it is the aim of the present study to develop a respective model and subject it to empirical validation.

Sustainable development is generally understood as a form of development that meets the current societal needs without jeopardizing the needs of future generations (cf. de Vries & Petersen, 2009). Internationally, the concept of sustainability is discussed in three interconnected frames of reference: economic, ecological, und social sustainability (cf. Yen-Chun et al., 2010; Seager, 2008). Perspectives in economics range from an almost complete rejection to a strategy of enriching economics by ecological and social aspects and, most radically, to demands for a paradigmatic change (cf. Beckenbach, 2001; Kopfmüller, 2001).

Domain-specific vocational demands which follow from the goal of sustainable economics render the starting point for the development of a model of competencies required for sustainable economic performance among apprentices in business education. In order to circumscribe this domain, current curricula which comprise respective aims and content specifications on the one hand and job requirements in authentic business settings on the other are analyzed. The subsequent development of a domain-specific competency model for sustainable economic performance draws upon existing, empirically validated models in business education which are based on the psychology of cognition. The fact that this approach – as its name indicates – is largely restricted to narrowly defined cognitive aspects of economic performance, it is supplemented by the dimensions of affects, attitudes and values that are crucial under the perspective of the regulation of behaviour. The resulting combination of theories of cognition with Ajzen's Theory of Planned Behaviour (1985) rests upon the assumption that intentions represent the key elements for observable behaviour. In its upper part, Figure 1 illustrates the relationships between intentions and their determinants. In its lower part, domain-specific components of the relevant knowledge are distinguished. At the same time, Figure 1 illustrates the current state in the development of a conceptual framework for a model of competencies required for sustainable economic performance among apprentices in business education.

Figure 1: Tentativ model of compencies required for sustainable economic performance among apprentices in business education (Combination of tenets of Cognitive Psychology with Aijzen's Theory of Planned Behaviour, 1985)



The hypothetical competency model for sustainable economic performance will be tested by way of domain-specific tasks that can be regarded as representative of four occupations for which sustainability has particular significance: management assistance for retail services; sales assistance for retail services; freight forwarding and logistic services, and office management.

The following steps are to be taken:

- identification of key areas and requirements for sustainable action in the selected occupations and areas of competency;
- specification of a theoretically grounded model of competent sustainable action in business-related fields;
- development of tasks/items for measuring competent sustainable action in business-related fields, using different formats and modes of testing;
- evidence-based validation of the conceptual model of competent sustainable action in business-related fields.

The analyses of the obtained responses are to be conducted on the basis of probabilistic test models (Item-Response-Theorie: IRT). Moreover, analyses on the basis of structural equation models are to be conducted. Proficiency scales and levels/thresholds are to be defined on the basis of item classifications *a priori* and subsequent predictions of item difficulties derived from regression analyses (cf. Hartig, 2007).

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