
COMPARING LEARNERS' PERCEPTIONS AND EXPECTATIONS IN PROFESSIONAL TRAINING AND HIGHER EDUCATION: THE GERMAN PERSPECTIVE

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Introduction

Culture, particularly when related to basic values is often understood as a national phenomenon. Hofstede and Hofstede (2005, p.19) suggest that wherever and with whomever value-based culture is investigated within a nation, the results are fully transferable to any individual and social context within the same nation. In the 1970s, Hofstede (1980) investigated the working culture of IBM to determine how local work processes could be improved. For that purpose, he developed a standardized questionnaire, which he drove in national branches of IBM in 40 countries. For his sample, he eventually collected an impressive number of over 115.000 responses. He clustered the questions' results using *correlation* (Hofstede & Hofstede 2005, p.28) and found four dimensions, which he called 'Power Distance Index' (idem, p.43), 'Individualism Index' (idem, p.78), 'Masculinity Index' (idem, p.120), and 'Uncertainty Avoidance Index' (idem, p.168). For each dimension, he chose three to four questions with the highest level of correlation and transferred these results per country into national key scores per dimension. From these dimensional country-scores he deduced particular attitudes and perceptions of people in different social and thematic contexts (e.g., family, education, workplace, state). In a historical context, the taken approach was highly innovative, as comparative culture-analysis on national level was almost unknown. Sekaran (1983, p.69) wrote: *'Hofstede's research might be the beginnings of the foundation theories that could help scientific theory building in cross-cultural research. Hofstede's study encompassed 40 nations, had a big sample size, had longitudinal data, and used multivariate techniques to formulate some general theories regarding the ordering of nations across 4 dimensions.'* Because of its popularity (Jones, 2007), Hofstedes approach has been challenged unlike any other. Critique was expressed due many reasons, such as, the questionnaire design and the interpretation of results (32 questions led to 40 items) (Dorfman & Howell, 1988); the underlying concept of national culture in general (Ng et al., 2007); a massive simplification of the highly complex nature of culture (Groeschl & Doherty, 2000); methodological issues (Huo & Radall, 1991; Taras & Steel, 2009); the generalization of data that actually were collected in a very particular context (Javidan et al., 2006, p.898); the size of some national samples in general and the very selective choice of participants (McSweeney, 2002); the claim that the national scores will keep persistent over time (Fernandez et al., 1997; Spector et al., 2001); the

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reduction of culture to basic values (Tjafel & Turner, 1986), and a lacking selectivity between the dimensions (Cramer, 2007).

Some of the critiques that are related to Hofstede's model of cultural dimensions are quite fundamental and driven by emotions (Westwood & Everett, 1987). Most of the expressed critique against the national scores per dimension is reasonable and strongly encourages further investigations according to their general validity and scope. Additionally, the distance between the scale elements is not absolute but relative (Hofstede, 2011). We found that numerically equal distances (represented through the national scores) between national contexts cannot be assumed to represent comparative culture-related gaps (Richter et al., 2008). This issue, in particular, limits the opportunity to reasonably derive concrete conclusions for the design of culture-sensitive outputs, such as tangible products, computer applications and educational scenarios and material. Hofstede's cultural dimensions, in contrast, were confirmed (Søndergaard, 1994) in various other investigations, including the later found fifth dimension 'short and long-term orientation' (Hofstede & Hofstede, 2005, p.211). We think neither should Hofstede's cultural dimensions nor the related national scores be abandoned because they still have their value for academic purposes, but also in a practical sense. We experienced the national scores being very supportive as rough indicators (Williamson, 2002, p.1381) for an initial assessment of the need to drive further costly investigations: If two countries are indicated to being culturally very close to each other (according to a specifically relevant dimension), the risk for a clients' rejection of a product might be quite low if the product has already fully been accepted within one of both national contexts.

The discipline "Information Systems" (IS) is one of the core-disciplines contributing to the further development of Technology Enhanced Learning. As the bridging-discipline with a focus on people, technology and application systems, it mainly is responsible for the modelling of educational processes and the development of application systems, such as Learning Management Systems, groupware, authoring tools, etc. Myers and Tan (2002), Leidner and Kayworth (2006), and Ali et al. (2009) investigated IS literature according to determine the common practice of culture-related research in this field. Their analysis revealed that in more than 70% of all included papers, the authors adopted Hofstede's dimension model. Design decisions were taken from the related national scores without applying further detailed investigations. Above mentioned studies on IS literature were limited to studies that had been published in US journals. In order to find out if a similar trend and practice could be found within the German IS, we repeated the analysis for the two most popular IS Journals in the German speaking countries (Richter & Adelsberger, 2011). We particularly focused our investigation on the authors' argumentation regarding these particular research design decisions. In this context, we additionally considered the same papers that had been chosen by Myers and Tan (2002), Leidner and Kayworth (2006), and Ali et al. (2009). The only reasoning we found amongst all these papers came from Johnston and

Wright (2004, p.234) who explained that *'There are other ways to operationalize culture, but we have chosen this one [...] it is the work usually selected by the researchers'*.

The author argues that one's culture, at least to some extent, always is related to particular (individual and collective) experiences. In terms of education, this means that a learner, who experienced particular services in his/her past, might perceive such services as usual (educational culture) and thus, expect them to be delivered in any kind of learning scenario. In German universities, education is meant to be a full-time job and usually is designed to provide a broad basis of theoretical and methodological knowledge. Achieving methodological competences is a core goal of German academic education: Once a student leaves the university, he/she is expected to decide about appropriate methods for any kind of problem (in the field of study and above) and how to modify the known methods in case of need. In contrast, in professional training, the learners have to study in extra-occupational situations (time is a serious issue) and might expect training that pointedly prepares them for very specific tasks. We assume that such a scenario has its own educational culture. Thus, when designing learning contents and learning scenarios for professional training, meeting the learners' expectations and contextual peculiarities might be essential for the learning success. For our investigation, we wanted to know, if expectations of learners and their perceptions regarding professional training actually differ between organizations.

Study setting

We adopted our standardized and already established questionnaire (Richter, 2011; Richter & Adelsberger, 2013) from our on-going survey "Learning Culture" that originally focuses on higher education. We slightly modified the questionnaire according to the targeted professional context ("professor" became "instructor") and used its paper form. On a 4-point Likert scale (ranging from fully agree – fully disagree), the respondents were asked to express their perceptions of education according to 100 culture-related statements in the following general categories:

- relationship between learners and instructors; perceptions towards laud and admonition; group building processes; communication style; behaviour in groups;
- time management;
- value of errors; the type of user activity; expectations towards personal coaching;
- demand to influence learning contents;
- how and when feedback is to be provided;
- gender-related issues.

For the questions, we considered issues that were reported to cause conflicts in education. We invited 30 traditional German stock-noted enterprises for participation. The implementation of the questionnaire proved elusive because none of the enterprises had an own interest in the results. Thus, they did not want to invest much working-time for their contribution. However, we were able to convince 7 DAX-noted enterprises from different sectors to support us with a

defined number of participants. All seven enterprises agreed to randomly invite 25 employees. The agreed condition for participation was that each involved employee must have experiences with professional training (within the enterprise) and a position in which such training usually is provided. The non-response rate was quite high, so that in 5/7 enterprises four and less employees completed the questionnaire. In the remaining two enterprises, which were a telecommunication company (German Telecom) and an energy producing company (RWE), we received 7 and 14 responses (out of 25 invitees). Following the recommendation of Baur (2008) for ordinal-scaled data, we binarized the results into positive and negative outcomes and focused our analysis on the percentage of positive answers.

Findings

In the following, the findings of our survey are introduced and discussed. Since we consider the specific details for each of the investigated enterprises as less interesting for the community, we focus our discussion on the items that are most significant in regard to the original research question. The questionnaire with its 100 items will neither be introduced in detail. For recognition, the full questionnaire is publically available at:

http://duepublico.uni-duisburg-essen.de/servlets/DerivateServlet/Derivate-34756/201402_Learning_Culture_Due_Publico_Version.pdf

The results from our study are displayed in net diagrams. The items in each of the net diagrams are clustered according different sections within the questionnaire. In this constellation, particular patterns get visible and comparable that otherwise (in tables or block diagrams) would be difficult to recognize. Each axis of a net diagram represents a single questionnaire item with regard to the percentage of positive answers. The spaces between the axes are undefined. On the scale, we understand responses between 40% and 60% as individual (normal distribution) and not as culturally biased. Results below 40% clearly show rejections and above 60%, agreement. In the following, we display both the average positive results from the investigated German enterprises (AE) and our corresponding results from the German higher education context (HE, 1817 respondents from three universities).

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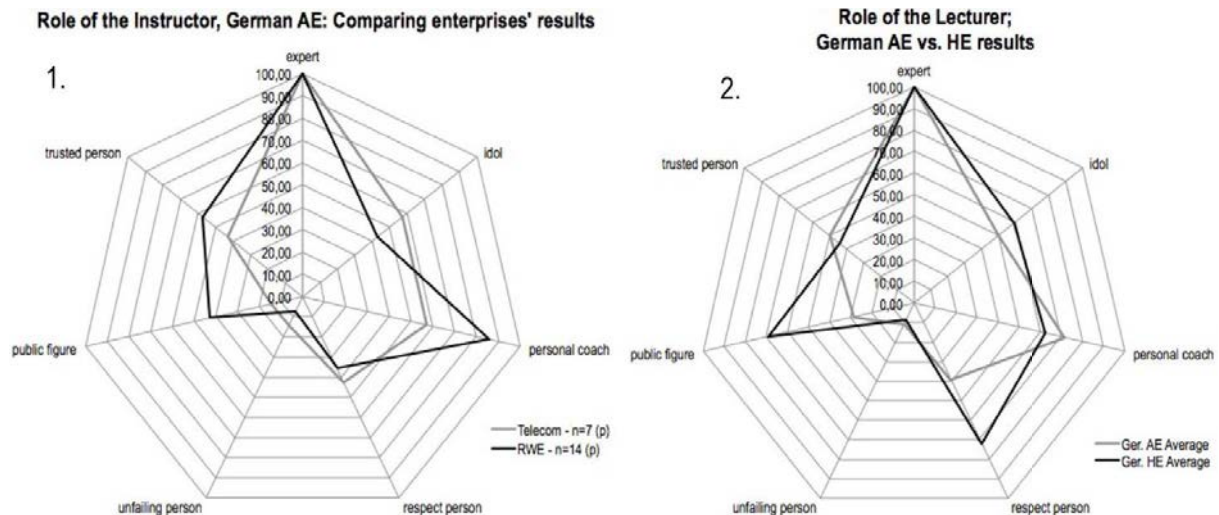


Figure 1. Role of the Lecturer: Results of enterprises (1) and comparing German AE with HE (2)

Figure 1 displays the learners' understanding of the role of the lecturer in their context of education. Comparing the both enterprises, RWE seems to have a higher developed tradition in personal coaching than the German Telecom. Contrasting the results from AE and HE, the work experience, professional standing and age of the participants seems to influence the results: While university students rather see a public figure and a respect person in their professors, the professionals do not recognize such an "imbalance of power" regarding their instructors.

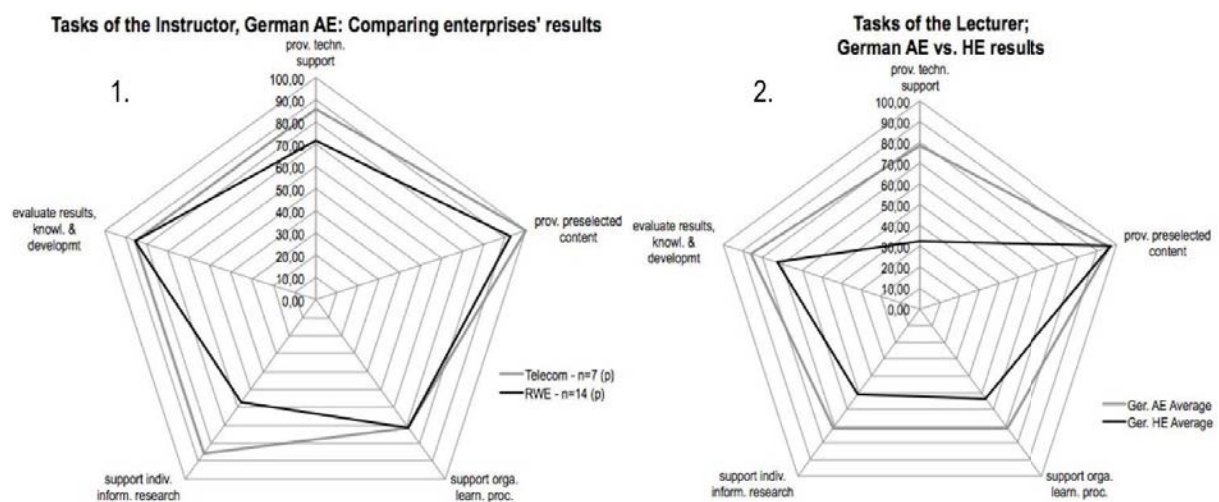


Figure 2. Tasks of the Lecturer: Results of enterprises (1) and comparing German AE with HE (2)

In Figure 2 particular services are focused, that the learners expect to receive from their professors/instructors. The learners in professional training generally express similar expectations. Smaller differences can be found according to the individual information research (Telecom: lecturer is expected to provide literature) and technological support (Telecom: the participants expect the lecturer to help if technological problems occur). Huge differences can be found between the AE and the HE contexts: In the German HE, beginner-classes in popular fields of study can reach a high number of students and thus, caring for

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individual needs is almost impossible. In all three items that are related to rather individual problems, the university students have little expectations. The professionals are much more demanding which is understandable given that they study besides their regular work.

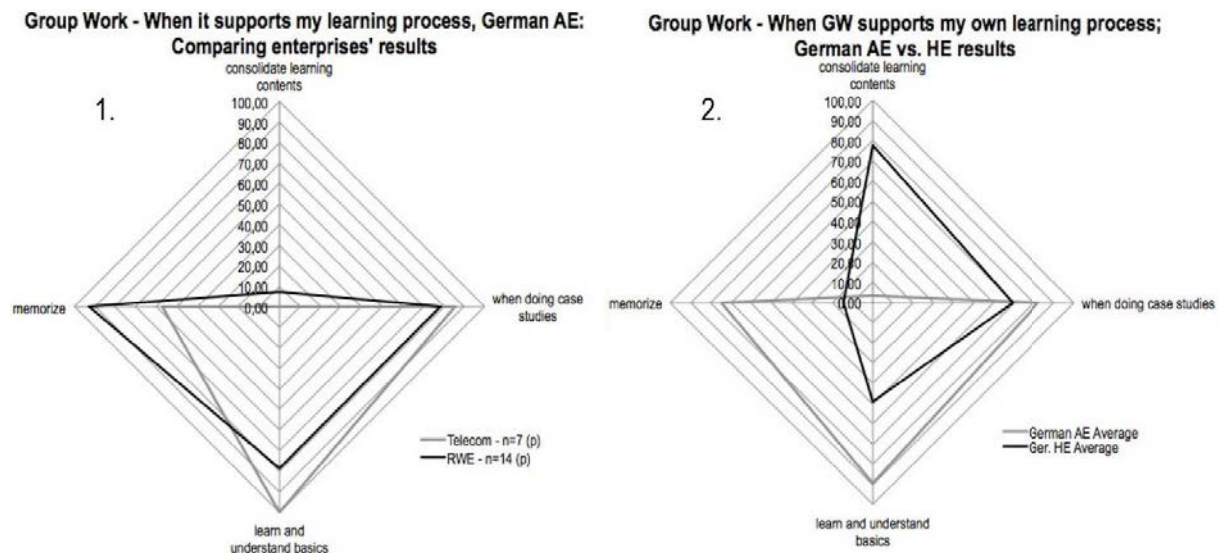


Figure 3. When group work supports my learning process: Results of enterprises (1) and comparing German AE with HE (2)

Figure 3 shows that for all employees, consolidation of learning contents (which actually is best to be done in a group) generally is irrelevant (provided learning entities are related to particular tasks). This is a big issue for the students who have to consolidate vast amounts of content and learned methodologies. Employees from both enterprises and students similarly report that doing case studies in the group is helpful. In contrast to the students, the employees of both enterprises perceive learning and understanding of basics in groups as feasible. Different to the employees who commonly study in a particular field, the students have a variety of elective courses (different learning groups would need to be organized). The employees from RWE, reported memorizing in groups being helpful. In case of Telecom the related answer is undecided (individual). This divergence could have its reason in the respective educational design of the organisations (behaviourist vs. cognitivist learning paradigm).

In Figure 4, the results according to our questions on time management are represented. For the employees' questionnaire, the original topic question was changed from "do your work" to "complete your learning tasks". In both enterprises the point of time when learning tasks are started and the adherence to schedules when it comes to completing learning tasks, appear to be individual issues as in both cases, the results show between 40% and 60% positive answers. Employees from Telecom are deeply involved in project work with fixed deadlines while the (herein involved) employees of RWE rather deal with continuous tasks. This might be an explanation for this divergence. Employees from both enterprises clearly report challenges in meeting related deadlines and that they tend to complete their learning tasks on the point. The university students rather tend to start their work early and particularly report always to meet

their deadlines. In German universities, meeting submission deadlines is a crucial condition for passing the exams. Too late submitted work results often are not accepted anymore. Since for the students, studying is a fulltime job, they appear not to experience great challenges in meeting deadlines.

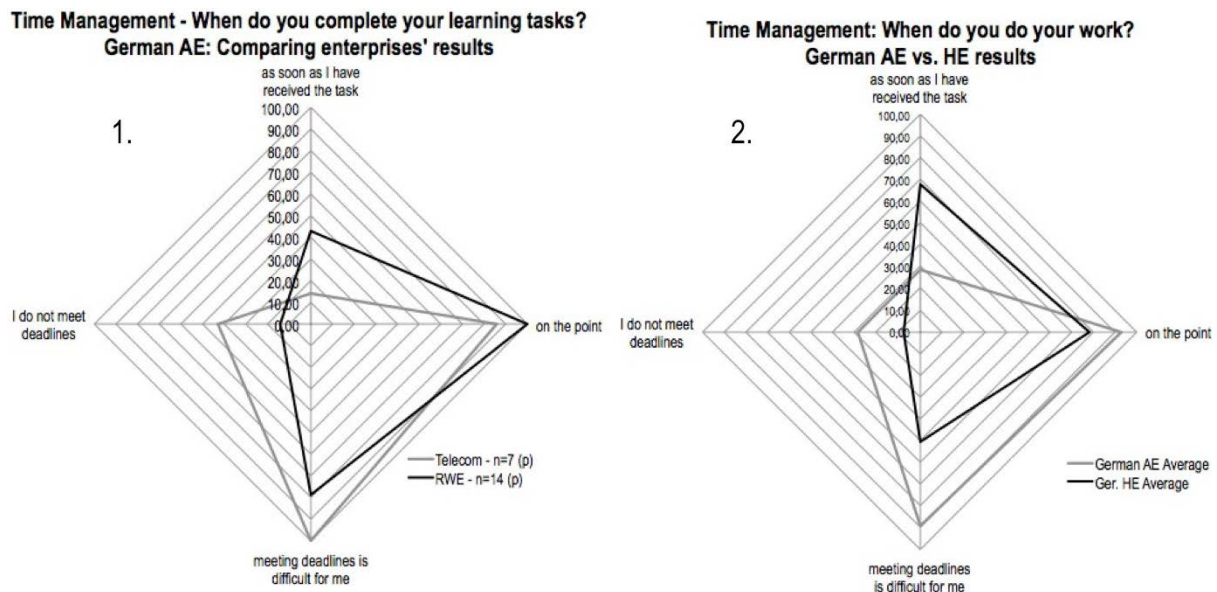


Figure 4. Time Management: Results of enterprises (1) and comparing German AE with HE (2)

Conclusion

We found several differences according to the learners' perceptions of and expectations towards education. Smaller differences were found between the two enterprises but those between the professional and the university context were most significant, reflecting the specific attributes of both scenarios of education. Even though the sample sizes of the enterprises were quite small, and thus, are not representative of these large concerns, the differences were explainable, particularly between the context of professional training and the university context. Learning scenarios that were produced for the context of higher education might need adaptation in order to meet the requirements of learners in the context of professional training. The found diversity in the answers from the two enterprises allows the conclusion that the organisational culture generally influences the enterprises' educational culture. As a general conclusion we can assume that generalizing research results that were solely achieved from national university students might lead to an inappropriate design of learning scenarios for particular professional contexts. Professional training for a particular enterprise should be developed according to its specific educational culture. The Learning Culture survey revealed as an appropriate tool for such investigations.

Further steps

The Learning Culture Survey focuses on higher education but also offers enterprises the opportunity to analyse their own educational culture in order to produce (or order) best suitable and learner-centred professional training. Many open questions still remain and the survey is driven forward by chance. Its progress highly depends on (mainly) voluntary support through universities and enterprises. Currently, questionnaire versions are available in Bulgarian, English, French, German, Greek, Japanese, Korean, Portuguese, Russian, and Turkish. All language versions are (being) implemented in our online survey system and each study receives an individual instance of the questionnaire.

Due to data protection regulations, we cannot directly address the learners in universities and enterprises. Thus, in order to proceed, we would like to invite universities and enterprises from all over the world to support the Learning Culture Survey. Support can be granted through sending invitations for participation to their local learners (after making an arrangement with us) or through contributing further translations. Once, the data collection is completed, we are willing to share the results (reports) with the supporting institutions and organizations.

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