
Culture-specific Perceptions of Motivation and Implications for Technology Enhanced Learning

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Abstract

The aim of our research is finding measures to preserve the learners' initial motivation in educational settings. For that we need to avoid conflicting situations that possibly could jeopardize their joy of learning. In our thematically comprehensive *Learning Culture Survey*, we investigate the cultural biasing of students' attitudes, behaviours, and expectations towards education. Particularly in times of massive international migration and growing numbers of refugees, the relevance to deeply understand cultural aspects in education increases. Just with this understanding, we can raise the awareness towards more cultural tolerance across all involved stakeholder groups and thus, foster the development of more culture-sensitive educational approaches. In this paper we focus on the most relevant aspect of motivation and comparatively discuss our study conducted in Germany and South Korea.

Abstract in German

Mit unserer Forschung wollen wir Maßnahmen finden, die dazu beitragen, die anfängliche Motivation von Lernern in Bildungsmaßnahmen zu bewahren. Zu diesem Zweck müssen Konfliktsituationen möglichst vermieden werden, wenn sie das Potential haben, ihnen die Freude am Lernen zu verderben. In unserem thematisch breitgefächerten *Learning Culture Survey* (Untersuchung von Lernkultur), untersuchen wir bei Lernern das Vorhandensein und den Einfluss kulturspezifischer Prägungen auf deren Verhaltensweisen, Gewohnheiten und Erwartungen bzgl. Bildung. Besonders in Zeiten massiver internationaler Migration und steigender Zahlen von Flüchtlingen wächst der Bedarf nach entsprechender Forschung stetig an. Nur wenn wir die Zusammenhänge zwischen Lernen und Kultur ausreichend verstehen, sind wir in der Lage, auf allen Ebenen die Entwicklung des erforderlichen Bewusstseins bzgl. kultursensibler Bildungsansätze zu fördern. In diesem Beitrag konzentrieren wir uns auf den sehr wichtigen Aspekt *Motivation* und diskutieren die Ergebnisse, die wir in unserer vergleichenden Studie in Deutschland und Südkorea erzielt haben.

Keywords: Motivation, E-Learning, Learning Culture Survey, Culture, Education, Intercultural Education

Introduction

Some semesters ago, we had two excellent Chinese guest students at our university who passed all exams with high scores except one, in which both failed. The significant difference between the failed exam and the perfectly managed others was that in this failed one, the students were asked to take a critical position against the taught contents. If we had foreseen their culturally specific reaction, we could have properly prepared them regarding our both countries' different concepts of learning (critical examination vs. reproduction) and understanding of respect towards instructors (consulting/guiding instructor vs. person of authority): In this particular exam, the students refused the completion because they feared to offend their lecturer when criticizing him or his choice of contents. After a short discussion of the theoretical background of this paper, we will come back to the issue of this example.

In E-Learning scenarios, learning is understood as a self-directed process (Rey, 2009, p.33). Schwartz and Bilsky, (1987, p.552) describe *self-direction* as referring "to reliance on and gratification from one's independent capacities for decision-making, creativity and action". Konrad and Traub (1999, p.13) introduce *self-directed learning* as a form of learning, in which the learner (depending on the kind of his motivation) decides himself which methods are to be taken in order to check, control, and evaluate the own learning process. Lenartowicz and Roth (2001, p.311) write that "self-directed individuals rely on themselves for achieving desired outcomes".

In such a self-directed educational scenario, a constantly high level of motivation is the most crucial success factor (Richter & Adelsberger 2011, p.1603). If learners lose their motivation in a face-to-face scenario, the educator still has a chance to recognize it and to intervene and support the regain of motivation (Rothkrantz et al., 2009, p.1). In e-Learning scenarios, this chance rarely is given; without recognizing the learners' mimics and gestures as tools to communicate satisfaction or frustration (Sandanayake & Madurapperuma, 2011, p.72), the instructors depend on the explicit communication of threats against the motivation of the learners. Ways to achieve a bit more control over the level of motivation of the learners are monitoring their efforts (Jain, 2002) and/or keeping their motivation on a high level by providing a learning situation that does not jeopardize the learners' pace.

While there is a high number of publications available which theoretically and experimentally investigate the questions what learners understand as being motivating and which activities eventually raise motivation (e.g. Dörnyei, 1994; Williams & Burden, 1997), research of influences that lead to decreasing motivation is rare. Nilsen (2009, p.546) argues if raising motivation should be put above preserving the initial motivation of learners. In his study (2006), Nilsen found that the main reasons for students' dropping out were ineffective study strategies, a mismatch between expectations and content in the study-program, and a lack of motivation. Bowman (2007, p.81) even claims that strong efforts should be made in order not to *destroy* the initial motivation by confronting the learners with unnecessary conflicts. Following Haberman (1995, p.22), it is not in the responsibility of the learners to adapt the given conditions of their learning context, but the educational institutions' duty to ensure that a learning environment supports productive learning for any kind and type of learner.

Regarding the treatment of the learners' motivation, parallels to once common practices in the healthcare sector appear to exist: As long as a learner is considered being motivated (healthy), nothing is to be done. If a learner shows symptoms for losing motivation (acutely ill), he is being encouraged in order to bring him back on track. Once a learner is considered having become wilful ignorant against motivation-supporting efforts (chronically ill), no particular activities to solve the problem are taken anymore; instead, symptoms are combated, e.g., bored learners in classrooms are demanded not to disturb others or are "simply" excluded from the lecture. For the sector of health care, this model can be considered being more or less out-dated, as many health policies implemented programs to strengthen and preserve health, e.g., through fostering sportive exercises, raising peoples' understanding of healthy nutrition, and setting up programs to avoid/deal with stress. Transferring this change from reactive to proactive health care (Menne, 2005) to the educational sector would mean to strongly support initially high-motivated learners not to lose their motivation. In order to get a better understanding of factors that could jeopardize the learners' motivation in intercultural learning scenarios, the standardized questionnaire *Learning Culture* was implemented. In the context of this questionnaire, learners were investigated regarding their attitudes towards motivation. In the following, the questionnaire is briefly introduced alongside with the setting of the bi-national study. Eventually, found results are discussed and finally conclusions taken.

Operationalization

We analysed the literature on reported conflict situations in international and/or intercultural learning scenarios. Additionally, we held informal interviews with students in Germany and South Korea in order to find further (yet unreported) influence factors that, from the students' perspective, cause whatever kinds of conflicts in their learning processes. The results of both eventually led to the operationalization of our *Learning Culture* questionnaire.

Regarding motivation, we first wanted to understand how students assess their motivational predispositions towards outer influences. Second, we were interested in answering the question why students learn and thus, which expectations regarding the taught contents they may have. Third, the students' strategies towards difficult and/or unmanageable tasks were focused. In the interviews, we found that some students considered the latter aspect being most discouraging. We assumed that if instructors understood those three types of influence factors from the perspective of the students and additionally, were aware of possible cultural differences, they could improve their support in order to foster and preserve the students' motivation on the one hand and have a more differentiated perspective how to prepare foreign students (and themselves) and evaluate unexpected results on the other hand. We asked the students to assess the following statements on a four-point Likert scale:

1. How would you describe your personal level of motivation?
 - a. I easily can be encouraged from others or situations.
 - b. I easily can be discouraged from others or situations.
2. Which of the following aspects do you consider being motivating for you within learning processes? I experience as motivating ...
 - a. if the imparted knowledge is useful/valuable for my (private/workaday) life.
 - b. if the imparted knowledge contributes to my personality development.
 - c. if the imparted knowledge improves my chances on the job market.
 - d. if I deliberately can select the learning content / topic.
 - e. if the imparted knowledge is strongly needed for upcoming examinations / tests / presentations.
 - f. if my professor/employer instructs me to acquire this knowledge.

3. If you feel discouraged because of a seemingly unmanageable task, how do you revive your motivation?
 - a. I take a rest in order to free my mind and continue later on.
 - b. I force myself to stick to the task in order to solve the problem.
 - c. I generally finish such tasks unsolved.
 - d. I look for possible support (persons, literature, and others).
 - e. I turn to different work first and later on return to the difficult task.
 - f. If the task is dividable into subtasks, I confine myself on the subtasks that I can manage and ignore those I cannot.
 - g. If the task is dividable into subtasks, I confine myself on subtasks I am personally interested in and later on get back to the difficult tasks.

After having completed several layers of test studies on understandability and appropriateness, the questionnaire was translated from English to German and Korean. The Korean version of the questionnaire additionally was retranslated to English in order to ensure the correctness of its translation (German is the first language of the authors). We initially chose the both countries Germany and South Korea due to several reasons: Germany and South Korea are considered having a more or less homogenous culture (Ziltener, 2006), and they have a single national language (Leonardi, 2002, p.314). The technological infrastructure and common economical situation in both countries is similar. Both countries are considered being culturally very different which makes differences appear more obvious: South Korea is a traditional collectivist Asian country while Germany is a very individualistic western country (Hofstede & Hofstede, 2005, p.43, p.79).

Survey setting

In disbelief of the still frequently adapted theory that culture generally is a national phenomenon (Montesquieu, 1748, p.310), we had to determine the scope of the received data (transferability) and particularly wanted to find out if the investigated items actually were culturally biased. For our research, we adopted the culture definition from Oetting (1993, p.41) who defines culture as “the customs, beliefs, social structure, and activities of any group of people who share a common identification and who would label themselves as members of that group”. According to this definition, ‘culture’ is a society-specific majority criterion. In order to avoid blurring, we defined a vast majority (60%) as general requirement to assign a cultural background to found results regarding a selected phenomenon. In order to determine

the society, which was responsible for the cultural biasing, we implemented the study in an in-depth design in the German context: We had and took the chance to send mass e-Mails inviting all students of three German universities (in different regions) to participate in our Learning Culture survey. The response rate of the students was between 2.5-7%, which is quite typical for online-surveys. We received 1817 (2400 total) fully completed questionnaires from the German students; the distribution of the data within each university allowed us to distinguish between the different study fields (in the following, we use the term *faculties*). This enabled us to determine which social/organizational context's culture was the actual driver for the students' answers, the faculty, the university, or the nation. In South Korea, in contrast to the in-depth design we applied in Germany, we focused on a broad overview and investigated students from 39 universities in and around Seoul (the large area of Seoul covers about 50% of all inhabitants of South Korea). The questionnaire in Korea was distributed in paper form, as, due legal reasons and different to the German context, we did not get access to the e-mail distribution systems of the universities. In order to reach students from a high number of universities (broad design), we conducted the Learning Culture survey in the subway system of Seoul, following a random route algorithm (Kromrey, 2006, p.309-310) for the choice of participants. In South Korea, we received 286 (325 total) fully completed questionnaires (non-response rate ~50%).

Findings

In the German university context (Ger.), we found a slight diversity in the answers between the faculties within universities, but those rarely were higher than the average answer spectrum (~20%). However, the general answer patterns were very homogenous between the universities as well as between the faculties. In the South Korean context, we were able to separately analyse the results within nine universities (due to the numbers of response). We found very similar answer patterns at both levels, within each investigated university as well as on the Korean national level. A single Korean university showed significant differences to the others. After further investigation we found that in contrast to all others in our sample, this particular one was designed for extra-occupational education. In Germany, we additionally investigated large companies in order to determine if our results could be generalized to all educational sectors and found significant differences (Richter & Adelsberger, 2012) to the results in Higher Education (HE). The HE-results of the *Learning Culture* questionnaire items of the motivation-block are shown in Figure 1.

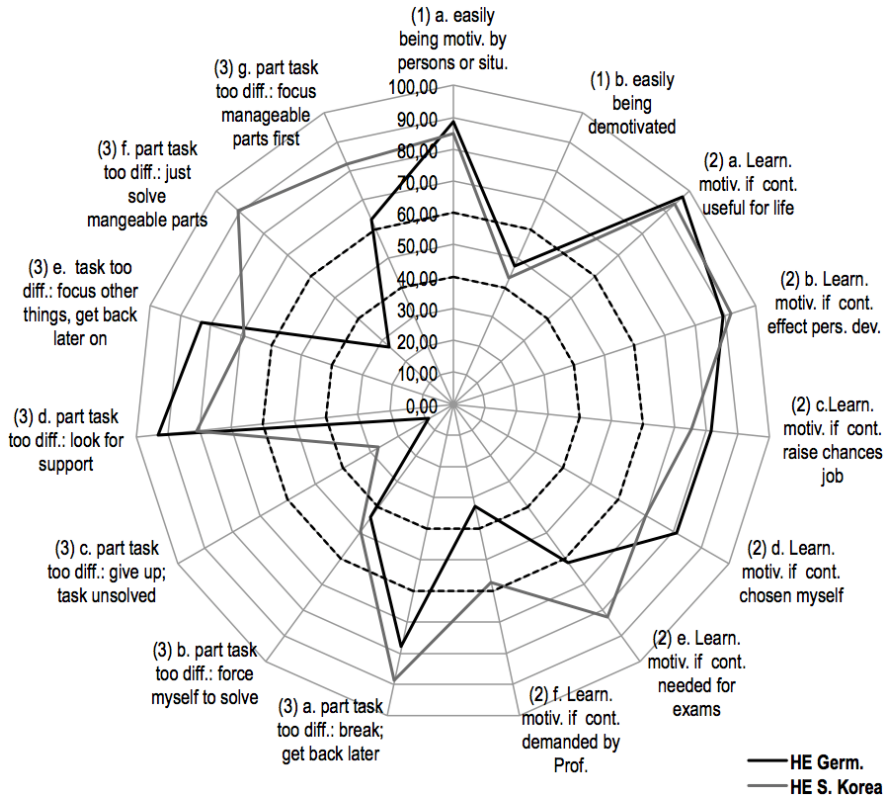


Figure 1. Learning Culture Survey: Motivation of HE students in Germany and South Korea

We binarized the data from our four point Likert scale in order to receive percentage values, which represent positive and negative answers. In the net-diagram (Figure 1), the average percentage values of the students’ positive answers regarding each of the items are displayed per country (Germany, black line; South Korea, grey line). Please note that just such points represent defined values where the curves cross each item’s axis. We chose the net-diagram for displaying the results because it allows us to identify answer patterns and related differences on sight by distinguishing shapes. As per our definition, cultural biasing is to be considered if at least 60% of the answers in a context are positive or negative, both, the 40% and the 60% level are highlighted in Figure 1.

Regarding some items, we found significant differences between the investigated contexts. However, in contrast to other topics we investigated, such as the students’ expectations towards instructor-support (Richter, 2012a) or the students’ attitudes towards time management (Richter, 2012b), the patterns between both countries are quite similar regarding our question block on motivation. In each investigated context,

an answer spectrum of 20-30% (extreme values) is common (in Figure 1, the averages are displayed) while clear results (95%-100%) have just been found in a small number of the in total 102 investigated items. Where we found strong differences regarding motivation was in the students' strategy how to deal with tasks that appear overburdening: The Korean students seem to limit their solutions on the manageable parts (90.88%) while the German students rather stick to the whole task (26.78%). The students in both countries expressed that they easily can be encouraged (88.59% Ger.; 84.97% SK). The level how far students are able to stick to a too difficult task, forcing themselves to find a proper solution and how quick they feel discouraged by outer influences seem to be individually different (for both between 40%-60%). Regarding the purpose of learning particular contents, the students in both national contexts reported that they experience learning as motivating, if the contents are valuable to either their life (96.96% Ger.; 93.71% SK) or personal development (89.25% Ger.; 91.96% SK) in general. Differences between both contexts were found in the more specific questions: The German students experience it more motivating than the Korean students, if they can choose the contents themselves (81.00% Ger.; 69.93% SK). In return, the Korean students seem to understand acquiring particular knowledge as motivating when demanded from the lecturer/professor (57.34%), which is not the case for the German students (32.81%). In addition, the Korean students appear to focus their learning efforts on the exams (target orientation) as they experience taught contents as motivating if needed for an exam (80%). As for the German students, the exam surely plays a role, but just 61.69% of the German students experience the requirement of an exam as a satisfying reason to learn particular contents. The majority of students reported not to leave a too difficult task completely unfinished (give up). However, leaving a task partly unfinished seems rather to be an acceptable option for the Korean students (27.02%) than for the German students (8.69%). Both countries' students proactively look for support if they do not find an appropriate solution (93.26% Ger.; 81.05% SK). Regarding the strategy to deal with an unmanageable task, the German students appear rather to distract themselves with completely different things (82.99%; SK 69.12%). In contrast, the Korean students rather focus on the manageable parts of this task (82.49% SK.; 63.22% Ger.).

Limitations

Our so far collected culture-related data cannot be generalized to all learning scenarios within a national context. In Germany, we conducted the survey in the contexts of Higher Education as well as vocational training. In contradiction to the general national culture approach of Hofstede and Hofstede (2005) that follows the culture

concept of Montesquieu, we found occasional disparities between different company-contexts (company culture seems to affect learning culture) but significant differences when comparing university results with results from companies (Richter & Adelsberger, 2012). We did not yet try to implement our survey on school level; due legal reasons, this revealed extremely difficult within the German context. However, for children below the age of twelve years, there are hints that their natural curiosity has a higher impact on their attitudes than their cultural biasing (Buehler et al., 2012). Although within each investigated context, the results from all investigated universities were similar to each other, generalization on national level is problematic as soon as different languages are spoken (see Leonardi, 2002, p.314). In a small-scale test study, we investigated students in the French and the British language parts of Cameroon and found significant differences (per a priori analysis) between both contexts. Even though the numbers we achieved are far from being representative, the result is a hint on what may be expected. In order to approve such phenomena, we need to investigate further countries in which different national languages are spoken or former politically distinct regions were merged, e.g., in the context of colonization.

Future research

Besides the finalized versions in German, English, and Korean, the questionnaire has been translated to Bulgarian, French, Russian, and Turkish but apart of the French version, not yet retranslated for verification and improvement. We were able to carry out small-size studies (~35-55) in Bulgaria, Cameroon, Ukraine, and Turkey. Another study was implemented in Ghana (306 sample elements, one university). The small size studies are suitable for evaluating the cultural appropriateness of the questionnaire, as well as to gain a first impression on what is to be expected when conducting large-size and/or more distinct studies. For the next steps, we need strong voluntary support from the community regarding translations and retranslations of the questionnaire as well as by providing access to students. As extension of the Learning Culture survey, we developed a metadata-set (~170 attributes) to describe educational contexts (Richter & McPherson, 2012) and already collected corresponding data in order to ensure the appropriateness of this metadata set. We right now are working on a first implementation of a publicly available database, which includes both, the data from the Learning Culture survey as well as from the contextual investigation. With this database, we aim to foster the stakeholders' understanding of cultural differences in order to reduce unnecessary learning conflicts. We further on think that linking/matching learning resources with their corresponding (national) datasets could strongly support users when searching

contents and having to decide about their appropriateness and adaptation needs. We still need to achieve a better understanding particularly regarding multilingual countries (e.g., India), urban environments (more different language versions need to be available), and indigenous societies, which too often are treated as ignorable sub-societies within nations.

Conclusion

For this paper, we focused on the thematic block *motivation* of our Questionnaire *Learning Culture Survey* and analysed how the students evaluated their own motivational predispositions towards outer influences, their purpose of learning and affections towards particular knowledge, and their strategies to deal with educational tasks that appear unmanageable or too difficult for them.

In the presented bi-national study we unexpectedly found little significant differences between the answers. For such burning issues like having to provide language training to a very large number of refugees within the shortest possible time in order to foster their integration, this is quite a releasing message.

From the results, we can derive some general recommendations: The students from both contexts stated that it does not take much to being motivated. In our questionnaire block on feedback (not included here), all students reported experiencing laud as highly motivating; good work results thus should not be taken for granted but explicitly and repeatedly acknowledged (Richter, 2012c). This already might encourage students at all motivational levels; the already motivated, those who need encouragement, as well as those who appear wilful ignorant. As most students stated that they are not easily discouraged, delivering clear information on demands and expectations at the beginning of a course/program could make the difference between acceptance/adoption of/to existing context-related rules and frustration. It actually could help learners to keep their initial motivation during the course of a program or learning entity: The Korean system is seemingly more open towards accepting partial results than the German system. Korean students appear to gain motivation when particular knowledge is demanded by instructors and useful for exams. German students, in contrast, prefer understanding the benefits and like to influence the choice of contents. As for German teachers teaching foreign learners, while it surely is useful to properly inform the learners about all conditions within an educational setting, it still appears necessary to prove a certain measure of flexibility in the application of rules.

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