

A Pragmatic Discursive Culture Model for Global Teams

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Abstract

Cultural aspects affect the success of organizations as well as teams enormously. There are many well known barriers and challenges, but also mitigation strategies. This paper presents a pragmatic culture model for analyzing cultural aspects to identify differences and similarities, as well as a usage process for global teams. The model combines aspects of national and regional culture as well as contextual culture and pragmatic attributes. The model improves the weaknesses of current national culture models by extending context and pragmatic factors. These factors are essential for its practical application, in particular to facilitate global teams. The model has been used and validated in different Higher Education courses between German and Indonesian students in the field of Business Information Systems. It has shown that potential barriers can be identified in advance, leading to successfully working teams in a global work environment.

Keywords: culture model, cross-cultural teams, global teams, global software development

Introduction

Culture plays an important role when working in a global context. It is crucial for the success or failure of global organizations and teams. On the organizational level, culture-related challenges may occur when internationalizing a business (Pathak, 2011), building joint ventures (Al-Azad et al, 2010), or outsourcing parts of an organization (Khan & Azeem, 2014). On the level of teams, typical challenges occur when teams are distributed globally (Maznevski, 2012; Komlik, 2023). Challenges and barriers include geographical distance, establishing trust, communication breakdowns, and temporal and perceived distance (Morrison-Smith & Ruiz, 2020). A variety of solutions and interventions have been discussed in the literature (cf. Duarte & Snyder, 2011; Morrison-Smith & Ruiz, 2020). Common among organizations and teams are the challenges brought by cultural differences.

One solution to those challenges is the use of geographically-oriented culture models (cf. Maleki & de Jong, 2014) to analyze and understand different cultures. Those types of models, such as Hofstede's (2011) six dimensions model of national culture, have been both used successfully (Minkov & Kaasa, 2021) and criticized from a methodological and ethical perspective (McSweeney, 2023; Minkov & Kaasa, 2021).

Our approach, therefore, proposes to use culture models as an orientation for discourse and learning about different aspects of culture. Our model combines attributes from a variety of culture models. We integrate abstract models on national culture, such as Hofstede's model (Hofstede, 2011), with pragmatic guidance (e.g., for expatriates, Sousa et al, 2017) and context-specific culture, that helps for the energy sector (Stephenson et al, 2010).

From these starting points, we have derived the guiding research question: How to create a culture model which helps to facilitate global teams. More specifically, this research aims to answer the detailed research questions: How can culture models contribute to developing cultural competencies for global teams? How to align project work- and culture-related processes?

In this paper, we describe the current state of the art for culture models as well as the consequences for global teams. Our approach is then outlined and validated in a Higher Education setting. We conclude this paper by showing research directions.

Background

Culture Models

Culture is an ambiguous concept with different definitions and viewpoints. We understand culture as "a system of shared beliefs, values, customs, behaviors, and artifacts that the members of a population use to interact with their world and with one another and that are transmitted from generation to generation through learning." (Bates & Plog, 1991).

Culture models try to create an abstraction and represent culture by a variety of attributes. Culture models exist on different levels, such as supranational (e.g., linguistics, religion), national, organizational, or group culture (Karahanna et al, 2005). These aspects such as values, practices, norms, and attitudes have a strong impact on both individual and group behavior (Karahanna et al, 2005).

A variety of models have been developed and used, especially for **national culture**. Hofstede (2011) identified six dimensions: Power Distance Index (PDI), Individualism vs. Collectivism (IDV), Uncertainty Avoidance Index (UAI), Masculinity vs. Femininity (MA), Long-Term Orientation vs. Short-Term Orientation (LTO), and Indulgence vs. Restraint (IVR). The model has been validated in many contexts but also criticized (McSeeney, 2023). Further models have identified additional components. Hampden-Turner and Trompenaars model added dimensions, for example representing expression of emotions (neutral vs affective), status (achievement vs ascription), or time orientation (Hampden-Turner et al, 2020). Another model was developed based on the large empirical GLOBE study which assessed nine cultural dimensions: power distance, uncertainty avoidance, humane orientation, performance orientation, future orientation, institutional collectivism, in-group collectivism, gender egalitarianism, and assertiveness (House et al, 2004). It is common to those

models that they try to represent culture by a very limited number of dimensions.

A different approach is the representation of culture on a more detailed level. Richter & Pawlowski (2007) use culture metadata to create a more comprehensive view of national culture adding attributes on technical infrastructures, media user behavior and knowledge: media richness, human actors' culture, knowledge, behavior, and acceptance, demographic development, and religion.

In a working environment, other perspectives on culture are discussed as well. **Context-specific culture** shows different views on a certain domain. As an example, Stephenson et al (2010) explain behaviors in the energy sector with the dimensions material culture, cognitive norms and energy practices. Other examples for context-specific cultures are Henderson's model for the field of E-Learning (Henderson, 2007) or the discussion of an Information Systems culture (Leidner & Kayworth, 2006).

As a last category, there is more **practical-oriented** research on the behavior of expatriates in other cultural environments. This type of research provides insights into behavioral guidance as well as supporting interventions such as training, assistance, and support (Sousa et al, 2017).

As a conclusion, there are many models with different methodological approaches and focuses. There is not one model that can support individuals and groups. The choice of culture model depends strongly on the context and the purpose. In some contexts, national culture models might be sufficient; in other contexts they need to be extended by context-specific models. Also, some conclusions from abstract models (e.g., deriving communication guidelines from a certain power distance index or creating UX design) are rather speculative. Here, more practical guidance is strongly needed. Therefore, culture models can be helpful for an orientation but need to be combined and extended to create a comprehensive understanding of an organizational or regional culture.

Global Teams

Global teams face a number of challenges. Olsen & Olsen (2006) identified five motivational challenges when working in a global team: alignment of incentives and goals; trust is more difficult to establish; awareness of colleagues and their context; no motivational sense of presence of others; and the need for explicit management. Anh et al (2012) discussed the level of dispersion from a geographical and temporal perspective. They argue that the team performance strongly depends on overcoming those challenges (Anh et al, 2012). Morrison-Smith & Ruiz (2020) also classified their identified challenges as geographical distance (motivation and awareness, establishing trust, communication, and team conflicts), temporal distance and perceived distance. The last category was strongly influenced by sociocultural distance (Morrison-Smith & Ruiz, 2020). Overall, the aspects of coordination, collaboration, and communication are all culture-related and need to be addressed and facilitated (Swart et al, 2022).

A variety of studies has discussed success factors and related interventions for

global teams (Clark et al., 2019, Nguyen, 2013, Swart et al., 2022, Szewc, 2014). Common to those studies are the following factors: Creating trust, dealing with cultural diversity, providing collaboration and communication tools, facilitating knowledge sharing and communication, and providing common leadership and management. Those factors strongly depend on cultural characteristics. Thus, it is necessary to create cultural understanding (Shokef & Erez, 2006, Henderson et al, 2018) and its implication on the above mentioned success factors as well as facilitating cultural adaptation (Cramton & Hinds, 2014). Cultural competencies need to be trained and acquired (Lloyd & Härtel, 2010, Holtkamp et al, 2015).

Especially for the educational context, culture plays an important role (Gómez-Rey et al, 2016, Richter, 2012). As an example, Gómez-Rey et al (2016) relate different dimensions of Hofstede's (2011) model to different educational aspects, such as interaction, learning contents or social presence. As a key aspect, collaboration between students and teachers is strongly influenced by cultural factors (Li et al, 2023). In global virtual collaborations, i.e. in global educational teams, cultural competencies need to be developed to collaborate successfully (Li et al, 2017, Deardorff et al., 2023). Thus, it is necessary to align culture models and cultural competencies in different contexts.

As a summary, creation and facilitation of global teams is still a challenge. The challenges are well known but there is a huge variety of solutions and interventions. However, it is common to them that culture plays an important role and cultural understanding is a prerequisite to establish trust, facilitate communication, overcome conflicts and finally work successfully.

The Pragmatic Discursive Culture Model

Methodology

The development of the Pragmatic Discursive Culture Model consists of two artefacts: The development of the Culture Model and its attributes as well as the process to use it for learning and training to build cultural competencies. The artefact design was done using Action Design Research (ADR) (Sein et al, 2011), following the process of Mullarkey & Hevner (2019):

1. **Problem formulation:** Based on our initial literature review, we have identified culture-challenges and possible interventions. In our concrete context, we had the challenge to facilitate students' teams of Higher Education Institutions in Germany and Indonesia working on a collaborative software project. In three years, 70 students and 6 educators have participated in this case study to build cultural competencies and work in a globally distributed team.
2. **Artefact Creation and Implementation:** We built the culture model based on existing validated models (see above). Secondly, we created a process model for the usage of the model. The model was utilized in three case studies in Germany and Indonesia.
3. **Evaluation:** We follow the evaluation guidance of Venable et al (2016): The criteria of the evaluation are described in the section below.

The methodology of ADR, therefore, ensures both rigor and relevance of our artefact creation.

Conceptual Framework

In the following, we describe the design and development of our model. It consists of two parts:

- **Pragmatic Discursive Culture Model (PDCM):** the model describes the basic attributes and characteristics representing different aspects of culture.
- **Culture-aware group work process:** We have developed a process to create cultural awareness and build cultural competencies. This process can be embedded in team building processes in international work environments.

The PDCM model creation has considered the basic models discussed above. In a first step, we selected attributes for national culture that have been evaluated regarding the influence on global teams (Hofstede, 2011, Hampden-Turner et al, 2020, House, 2004). We have selected the most common attributes of these models. As a second step, we have included context-specific attributes. In one case study on a software development project for the energy sector, we have added attributes to the views on energy (Stephenson et al., 2010). However, as this category changes depending on the project domain, the category is just open and needs to be adapted in the discursive process described below. Finally, we have added pragmatic factors for concrete work behavior (Sousa et al., 2017). In a second step, the dimensions were transformed into statements. The following table shows the initial attributes. The model has been developed in two cycles. In this paper, we focus on the final model and its implications for competence development.

Table 1

Pragmatic Discursive Culture Model

Category	Question
National / Regional Culture	
Power Distance (Hofstede, 2011, House, 2004)	Are there differences between hierarchy levels?
Individualism (Hofstede, 2011, Hampden-Turner et al, 2020)	What is more important, individual or group success?
Uncertainty (Hofstede, 2011, House, 2004)	Do you try to avoid uncertain situations?
Gender differences (Hofstede, 2011, House, 2004)	Are there gender differences?

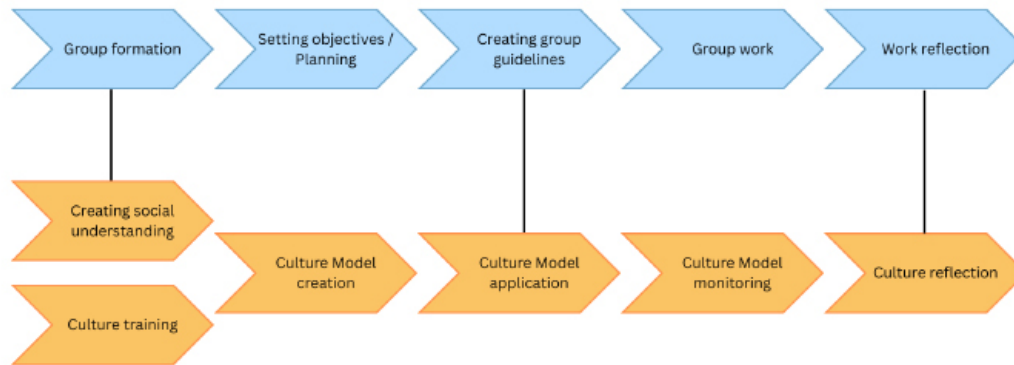
Category	Question
Length of Time (short / long term)	How long do you plan ahead?
Indulgence (Hofstede, 2011)	Can you enjoy life no matter what your preferences are?
Neutral / affective (Hampden-Turner et al, 2020, House, 2004)	How emotionally involved are you in work / studies / hobbies?
Pragmatic (Sousa et al, 2017, Richter, 2012)	
Communication – formality	How formal do you communicate in groups?
Communication – directness	How do you address tasks, problems or conflicts?
Trust	How do you develop trust? To whom is it easier to build up trust?
Conflicts	How are conflicts addressed and solved?
Willingness to change	How easy is it to change habits? How easy is it to introduce innovations?
Private vs work space	How strongly do you distinguish between work and private life?
Time and planning	How strict are you at keeping appointments or work tasks?
Agreements	How important are (work) agreements (e.g. keeping a deadline)?
Dress	How do you dress at work / events?
Vacations / holidays	How important are holidays / vacations?
Infrastructure	How advanced is the IT infrastructure (e.g. broadband)
Tools	Which collaboration and communication tools are common?
Context-specific attributes	What are different perspectives on the application domain (e.g., energy systems)?
Context	What is the specific view on the sector / domain?

The above-presented PDCM is not complete or exhaustive. It is just a starting point for the discourse of a work group. The first part of this process is the discourse on the domain, i.e. extending context-specific attributes. The group needs to discuss which views and perspectives in the domain exist. As an example, for the field of education this could be derived from the existing culture model for e-learning (Henderson, 2007), adding attributes such as pedagogical paradigms, instructional design preferences or interaction types. This discourse includes the reflection on the actors' own culture as well as the discussion of the

other culture. During the process, the model is extended, refined and discussed continuously. The full usage process is shown below.

Figure 1

Culture-aware group work process



The process consists of two process categories: project work and cultural. The upper process is the project work process, consisting of:

- Group formation: This activity consists of selecting team members, as well as the introduction to the project and work tasks.
- Setting objectives / planning: In this phase, the group work tasks are discussed, distributed, and scheduled.
- Creating group guidelines: group guidelines consist of communication and collaboration guidelines. It includes guidelines on how to deal with cultural differences
- Performing group work: This task summarizes the project / work activities.
- Work reflection: During and after the work process, the group should reflect on their performance as well as emerging conflicts / issues

The other process is the culture-related process, which includes the discourse on cultural differences and similarities. The process consists of the following steps:

- Creating social understanding: as a starting point, we recommend to not solely focus on creating a work-related understanding (e.g., work competencies) but also focus on social aspects (family, hobbies, preferences) in an informal environment
- Culture training: actors should have a basic understanding of culture models and their usage
- Culture model creation: Actors will review different culture models and pragmatic guidelines to extend the PDCM. In particular, attributes on context-specific culture should be added depending on the work domain
- Culture model application: Actors use the model to reflect their own culture, get to know the other culture, and then identify similarities and

differences. Based on this analysis, actors should create guidelines on how to deal with differences

- Culture model monitoring: Actors should continuously reflect whether their model and the corresponding guidelines were appropriate or need to be changed – as an example, when a culture-related conflict occurs (e.g., communication problems), the group needs to discuss the underlying cultural reasons and create new solutions / guidelines.
- Culture reflection: During and after the project, the group should reflect on how they handled and dealt with cultural differences.

Both processes must be interconnected and will not work in an isolated way. It is essential that the work group continuously monitors and reflects on challenges and conflicts, both work- and culture-related. Thus, the discourse on the model extension and usage is a central component.

As a summary, the model consists of the PDCM with its attributes and operationalization as well as the process showing the interconnection of work- and culture-related activities.

Case Study

The PDCM was used in three courses. The courses were held in two Higher Education Institutions in Germany and Indonesia in Master courses in Information Systems. Each course included a group assignment on creating, planning, and implementing a collaborative software project, including an Indonesian-German collaboration.

Creating social understanding / Culture training: In the first phase of the group work, all students received an initial training on different culture models (as discussed in the background section). Additionally, an informal discussion on personal preferences was launched. The following questions were provided as a starting point for the event:

- Where are you from? What is your home city like?
- Tell about your family and friends
- What are your hobbies and favorite social activities?

Each group continued to develop their own questions. These were not monitored due to the informal character of the session.

Culture model creation / Culture model application: In the second phase, students discussed the PDCM and its attributes. They also discussed which further attributes could be useful and helpful, and thus created their own extended model. For each attribute, the groups analyzed the attributes for both Indonesia and Germany and discussed differences and similarities. As a final step, they elaborated guidelines on how to deal with differences in their group work.

The following figure shows a sample of the resulting model and documentation for both national culture and pragmatic culture attributes.

Table 2

Sample results on national culture attribute

Culture Attribute	Operational Question	Sample Answer Germany	Sample Answer Indonesia	Consequences / Solutions
Power Distance	Are there differences between hierarchy levels?	Yes, there definitely are, but we usually have low differences between the hierarchy levels. But we still stay polite and respectful while talking to people in higher positions, and we are aware that they have more power than ourselves.	Yes, there is a difference about how we talk to people who are older than us or have a higher position than us.	Indonesians have more and higher differences between hierarchy levels than the Germans, but both stay polite in their own way. Maybe the Germans need to adjust their common behavior to higher positioned people.
Short / long term	How long do you plan ahead?	We usually plan long-term, but most of the time the plans need to be changed when goals can't be achieved in the planned time.	We consider long and short-term plans, but sometimes we have a high flexibility in adjusting the plan as we do the plan.	Both Germans and Indonesians consider long-term plans, and we change the plan as needed. Therefore Indonesian and Germans can work together.

Culture Attribute	Operational Question	Sample Answer Germany	Sample Answer Indonesia	Consequences / Solutions
Indulgence	Can you enjoy life no matter what your preferences are?	Yes, we always can enjoy life with whatever we like and whatever our preferences are. There is nobody telling us what we should like or what our preferences should be.	Yes, because in Indonesia we can enjoy our life in our preferences, how we like that, and we can enjoy life because we like something that we want to do, that is our decision.	Both Germans and Indonesians agree that they can enjoy life with their own preference without being held by some social perspective. This might be a good start for both cultures.
neutral / affective	How emotionally involved are you in work / studies / hobbies?	We usually work enthusiastically if we find the perfect job, study or hobby that fits our own preference.	We can differentiate when we have to focus on work and when we can study or do hobbies. Many companies in Indonesia already showed their support to the employees for their studies or hobbies.	When we find a topic for our group work or app that we all are interested in, we can work very efficiently and enthusiastically.

Table 3

Sample results on pragmatic culture attributes

Culture Attribute	Operational Question	Sample Answer Germany	Sample Answer Indonesia	Consequences / Solutions
Communication – formality	How formal do you communicate in groups?	It depends on the hierarchy levels in the group. If we are working in an even group with almost the same hierarchies, we are less formal in our group communication than when we work in a group with many colleagues from higher levels.	If we are in a group the same age we can do informal communication, but in the group where there's the oldest or younger we must talk formally in the group.	Both Germans and Indonesians have the same and similar types of formality in communicating in the workplace, formal communication with the higher level, and can do informal communication with the same or even group position.
Communication – directness	How do you address tasks, problems or conflicts?	We usually are very direct in communicating problems or conflicts, but that also depends on the individuals. Some people really try to choose the correct words to not hurt or offend the addressed colleague, but there are always people that just write down their thoughts, even if they could offend the others.	It's hard to address the problem or conflict directly, but we usually try to address the conflict by carefully choosing the word we are going to say, so that people won't feel offended.	In terms of directness, Germans are most likely to be direct for some, while Indonesians tend to be indirect while addressing some conflict. However, both ways have their own plus and minus, depending on the groups of people and the situation to deal with.

Culture Attribute	Operational Question	Sample Answer Germany	Sample Answer Indonesia	Consequences / Solutions
Trust	How do you develop trust? To whom is it easier to build up trust?	We usually develop trust through communication and by showing our colleagues that they can trust us.	We develop trust by communication, usually people get closer by communication then get the trust through that process. It is easier to trust the person we are close with.	We can easily develop trust in each other with communication and don't need to do other special things to gain trust from our colleagues.
Willingness to change?	How easy is it to change habits? How easy is it to introduce innovations?	We usually don't like changing habits or getting along with innovations. Germans like to stick to the tried and tested. Before changing anything they will start discussions about possible risks for the time schedule or financial aspects. But when we see a high potential for improvement we will also change our beloved habits.	We have a high flexibility therefore we have a high interest for change in order for improvement. At first it must be hard to introduce a new innovation but over time we will get used to it.	Maybe the Germans should be more open for adding new habits or for introducing new innovations in their work.

Culture Attribute	Operational Question	Sample Answer Germany	Sample Answer Indonesia	Consequences / Solutions
Private vs workspace	How strong do you distinguish between work and private life?	Usually we don't mix up our private life with our work life. But if we feel well in our company or with our colleagues we also might talk about our private life to our colleagues. But only if we have time and if we trust them enough. Mostly at lunch-breaks.	Indonesians are likely to have more people together in the workplace, sometimes we will enjoy the me-time.	We can always talk about private things if we want to, but we will not be misunderstood if we don't want to overshare private stuff with our colleagues.

Culture model monitoring / Culture reflection: In the final phase, students as well as educators reflected on problems that occurred during the group work. A variety of issues were identified – as an example, a common issue was the interruption of communication, i.e., students stopped replying to emails or disappeared in conferences without notice. Students then reflected again on communication habits and followed that the communication guidelines must be adapted towards committing strictly to absence notifications and timely replies. However, only one of 15 groups completely failed to produce complete results. As a lesson learned, we follow that it is essential to continuously reflect on culture-related differences and adapt the common solutions.

Evaluation

The evaluation is a naturalistic ex-post evaluation (Venable et al, 2016) using a mixed method approach (Venkatesh, 2013):

- Observation in three case studies: We observed the participants' usage of the model as described in the section above and gathered feedback in three case studies (Darke et al, 1998). The results of the first two case studies are already integrated into the model.
- Survey: In all three courses, we evaluated the model using a survey on the participants' opinion on the process and the culture model. This was accompanied by open questions to receive qualitative feedback.

The three courses were visited by 70 students, 33 male and 37 female students, as well as six lecturers. It was organized as a Collaborative Online International Learning (COIL, Hackett et al, 2023) format, which combined online and presence phases. In the first two courses, we examined the use of the culture models. We observed the most used attributes and extended / modified the initial culture model. The results are already reflected in the model presented above.

The second part of the evaluation was quantitative analysis. The goal of the evaluation was to find out 1) whether intercultural competencies have been developed during the course and 2) whether the model has helped to develop competencies and improve teamwork. The evaluation considers the following aspects:

The first part considers competence development: How do the participants rate their competencies before and after the course? The following competence areas have been considered: 1) Communication competence, 2) Collaboration competence, 3) Cultural competence, and 4) Teamwork competence. The following competence statements were used, based on (Holtkamp et al, 2015).

- Comm1: Ability to communicate sensitively, taking into account other personalities and cultures.
- Comm2: Foreign language skills (e.g., knowing English; speaking a "common" language).
- Cult1: Ability to identify cultural differences and similarities
- Cult2: Ability to understand other people's perspectives, needs, and

values.

- Cult3: Understanding of the influences and implications culture has in work life.
- Coll1: Ability to manage diversity in the team to enable everyone to contribute and participate.
- Coll2: Ability to share information and knowledge with the team.
- Team1: Ability to work in a multi-cultural team
- Team2: Ability to deal with team conflicts

Secondly, the contribution of the PDCM has been evaluated: How have the culture model and its components contributed to the competence development? Here, we asked for the importance of social aspects as well as the use of the model.

Besides the competence development, the contribution of the culture model was evaluated:

- Comprehensibility: Was the model understandable?
- Usefulness: Was the model overall useful in the work process
- Extensibility: Was it easy to add factors to the model?
- Applicability/transferability: Can the model be used in other contexts of global teamwork
- Team building: Did the model help to build a successful team?
- Cultural understanding: Did the model help to understand cultural differences?

We evaluated those criteria and added open questions for qualitative feedback on the process and the model.

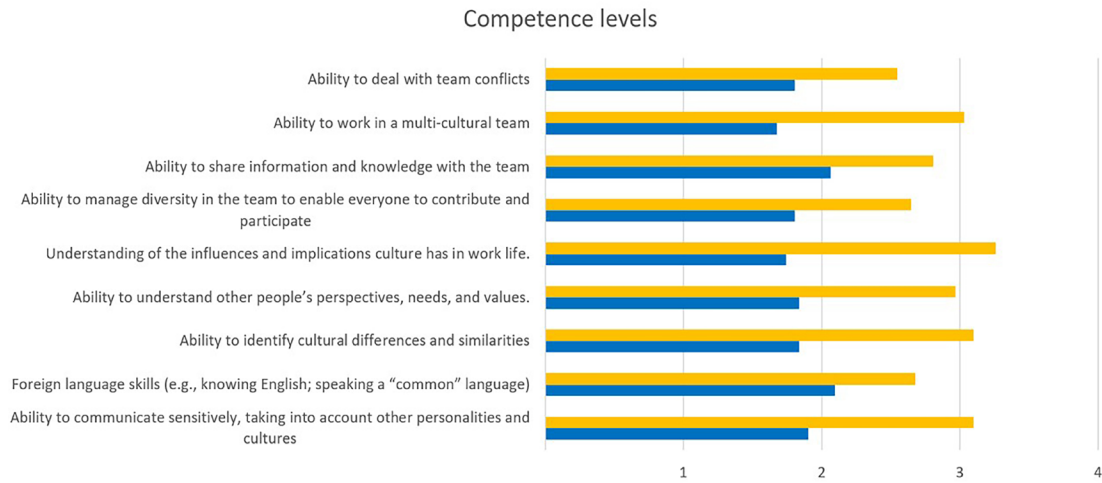
Results

Out of the 76 participants, we received 31 evaluations (28 students, 3 lecturers, 15 female, 16 male). The students and teachers were all part of a Master study program in Information Systems. We validated both the competence development and the model criteria. Both were using a Likert scale – in the analysis, the mean values of the Likert scale were calculated to obtain a general picture of the results (Norman, 2010).

In the first part of the survey, the respondents self-assessed their competence level (between 0: no knowledge to 4: expert). The following figure shows the competence development and the average competence levels before and after the culture-awareness process.

Figure 2

Competence level comparison

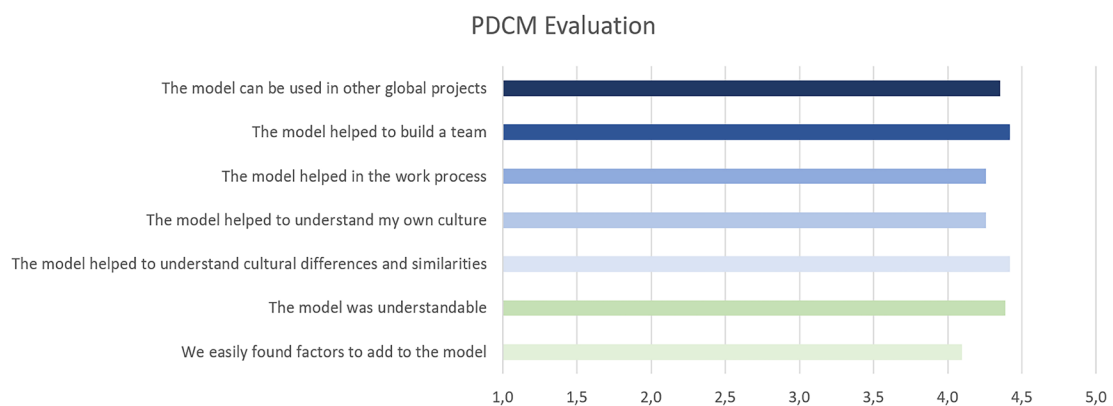


It can be seen that all competences were improved. The largest increase in the competence level was Cult3 (Understanding of the influences and implications culture has in work life), Team1 (Ability to work in a multi-cultural team), and Cult1 (Ability to identify cultural differences and similarities). These developments indicate that the focus on culture has also influenced the competence in teamwork in multicultural teams. Overall, the participants had an average increase of one to two competence levels.

The second part of the evaluation is about the contribution of the PDCM. The participants evaluated the above-described criteria between 1 (totally disagree) and 5 (fully agree).

Figure 3

PDCM Evaluation



All evaluation criteria (comprehensibility, extensibility, usefulness, applicability/transferability, team building, cultural understanding) were seen positively (agree, fully agree). The figure shows the average results. Furthermore, we analyzed the qualitative part (open questions and observations of the process). In terms of comprehensibility and extensibility, we observed that all participants had no problems using the model, identifying cultural aspects, and creating their own models. All groups extended the model with a focus on context-specific aspects. On average, about seven aspects were added to the model, both research- and practice-oriented.

The model was also seen as useful and transferable. Several participants suggested further contexts from their work life in which the model could be used (e.g., in international telecommunication projects). Last but not least, the model was seen as helpful in team building and teamwork. It was positively mentioned that the discussion of team guidelines was very productive and should be done throughout the process. It was suggested that the guidelines are continuously improved when more common experiences are made.

Additionally, we asked for the main experiences and lessons learned:

- Five participants mentioned that the created group guidelines were sometimes neglected. It was suggested that the groups should regularly review the guidelines.
- Three participants mentioned that the guidelines should be summarized in a separate document, which is always reviewed and extended.
- More than half of the participants said that the culture model should be reviewed in later phases of the process, as sometimes differences were not found in the beginning.
- Several participants mentioned that it was not clear which cultural models can be used for the extension of the model. We suggested potential sources as part of the culture model training.

Based on these suggestions, we added the phase “monitoring” to the model and provided references to both research-based and practice-oriented culture models.

Overall, the model has been seen as very positive. Based on the initial evaluations, both parts of the approach (culture model, process) have been refined towards their current status. The approach has contributed to significant competence development in all competence categories. It has been found understandable and useful.

Discussion

Our approach aims at stimulating the scientific discourse on competence development and, in particular, the use of culture models to identify and mitigate cultural differences in global teams.

The main theoretical contribution is the extension of culture models combining validated factors from existing models with pragmatic attributes for work groups.

Our approach differs from existing national culture models (Hofstede, 2011; Hamden-Turner et al, 2020; House, 2004) as we see culture models only as an orientation and a starting point for a discourse on culture. Secondly, we suggest a usage process, combining teamwork and culture-focused activities. A central part of this is the introduction of a discourse process to extend and discuss the culture model by identifying and mitigating cultural differences. Therefore, we extend current models by adding a learning and reflection perspective. Additionally, we combine three perspectives on culture, i.e., geographic, context-specific, and pragmatic dimensions. By this combination, we avoid speculative reasoning and promote a discourse-oriented model that can be used in a variety of contexts, such as education.

As a pragmatic contribution, we provide a hands-on model with operationalized questions that can be directly used for work groups, in our case, in an educational setting. For global teamwork, we have proposed a concrete process for how to include a culture awareness process to better deal with differences and find solutions within the work group.

Last but not least, our model has been used in a practical learning and working context. We were able to show that the model is usable, understandable, and contributes to competence development, in particular focusing on culture and teamwork competencies. We therefore recommend using the model when working in international learning and training contexts. As an example, the model could be used in orientation phases of international courses and programs.

As a limitation, we can state that the model has only been used for two countries and within the Higher Education context. Thus, we intend to transfer the model to new contexts, in particular for different countries and work contexts.

Conclusion and next steps

The PDCM model provides a process and a discourse-oriented culture model for the identification of cultural differences and mitigation strategies for global teams. The model has been evaluated in three Higher Education courses with a focus on global teamwork and cultural competencies. The initial validation has shown promising results. As next steps, we will extend our research towards other contexts, new countries, and user groups.

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