



What efforts have teachers made to enhance online learning across cultures in the digital age? -A synthesis analysis based on activity theory combined with pedagogy

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Introduction

- Exchanges between people from different cultural backgrounds to collaborate or cooperate in problem-solving and optimal solutions-seeking across the world.
- The ability of questions clarifying and crucial conversations to foster cross-cultural discussions needs to be trained (Zaidi et al., 2016).
- When online education can be serviced as an alternative to traditional schooling, how students perceive the social affordances of virtual learning institutions becomes significant (Vatrapu & Suthers, 2017).
- The widely mentioned cultural frameworks in education are Hofstede's cultural model, Hall's cultural classifications, Folwerdew and Miller's "Notion of Culture" framework.



Hofstede's Cultural Dimensions

6

Power Distance Index (PDI)
 High: Acceptance of a hierarchical order in which everybody has a place and which needs no further justification. Low: People strive to equalize the distribution of power and demand justification for inequalities of power. **PDI**

Individualism versus Collectivism (IDV)
 Individualism: As a preference for a loosely-knit social framework. Collectivism: Tightly-knit framework in society. **IDV**

Masculinity versus Femininity (MAS)
 Masculinity: Preference in society for achievement, heroism, assertiveness and material rewards for success. Femininity: Stands for a preference for cooperation, modesty, caring for the weak and quality of life. **MAS**

Uncertainty Avoidance Index (UAI)
 High: Maintains rigid codes of belief and behavior and are intolerant of unorthodox behavior and ideas. Low: Societies maintain a more relaxed attitude in which practice counts more than principles. **UAI**

Long Term Orientation versus Short Term Normative Orientation (LTO)
 High: Pragmatic approach, they encourage thrift and efforts in modern education as a way to prepare for the future. Low: Societies prefer to maintain time-honored traditions and norms while viewing societal change with suspicion. **LTO**

Indulgence versus Restraint (IND)
 Indulgence: Societies that allow relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint: Societies that suppress gratification of needs and regulates it by means of strict social norms. **IND**

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 Skyword 2015

<http://www.skyword.com/contentstandard/>

Source: <http://geert-hofstede.com/national-culture.html>

Hall's cultural classifications

Factor	High-context culture	Low-context culture
Overtness of messages	Many covert and implicit messages, with use of metaphor and reading between the lines.	Many overt and explicit messages that are simple and clear.
Locus of control and attribution for failure	Inner locus of control and personal acceptance for failure	Outer locus of control and blame of others for failure
Use of non-verbal communication	Much nonverbal communication	More focus on verbal communication than body language
Expression of reaction	Reserved, inward reactions	Visible, external, outward reaction

Left: <https://www.skyword.com/contentstandard/beyond-hofstedes-cultural-dimensions-theory-approaching-a-multicultural-audience/>

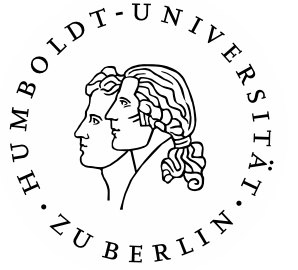
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Research questions

Though some studies collect qualitative data about what instructional strategies instructors of online courses use to address issues related to cultural diversity from experienced instructors, the integrated movements between teachers, students, and tools in diverse cultural online learning contexts are still not clear.

- What pedagogical strategies have online instructors adapted to enhance efficient cross-cultural online learning:
 - What kinds of pedagogical strategy variables were identified across culture online learning environments?
 - Which pedagogical strategies were common online across culture learning environments, and what learning effects have they produced?



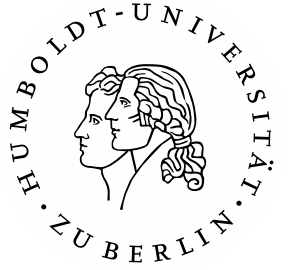
Research methods

Search strategies

- Web of Science, Scopus, PubMed, and PubPsych
- PRISMA guidance in literature review
- The search keywords on the below Boolean search string:

(cultur*) AND (digital OR online) AND (learn* OR teach* OR educat*)

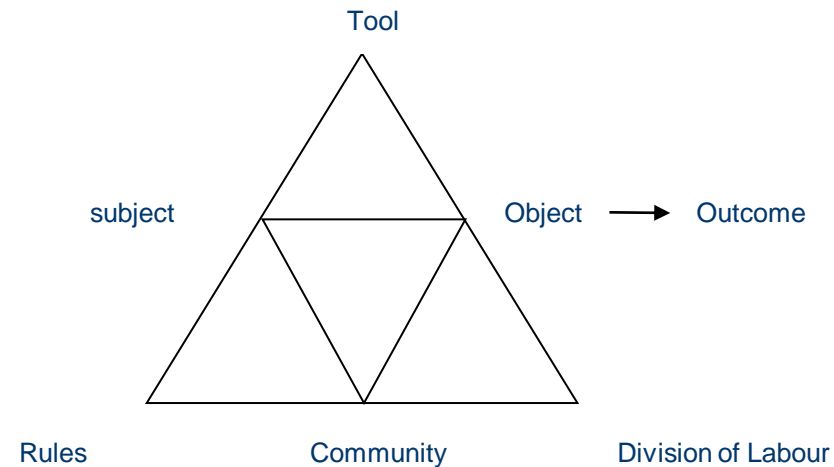




Research methods

Coding scheme

- Pedagogy-related questions and pedagogical strategies from Ciavarelli (2003) and (AbuSneineh and Zairi 2010)





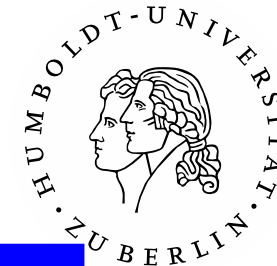
Questions when developing a course (Ciavarelli, 2003)

1. Who am I trying to teach?
2. What content do I need to teach?
3. How can I best organize this content?
4. What is the best presentation strategy and lesson sequence?
5. What is the best way to deliver the content?
6. How will I know when I have succeeded in teaching what I intended to teach?



Operational definitions

- 1. Subject: learners and teachers' characteristics;**
- 2. Object: learning objectives, learning tasks, or learning goals from teachers' perspectives;**
- 3. Tools: social media and learning management systems used in the courses;**
- 4. Community: disciplines or project;**
- 5. Rules: content presentation, e.g., content organization, information sequencing and structure, and learning assistance;**
- 6. Division of labor: other stakeholders and their roles in the courses**
- 7. Outcomes: measurement of learners' performances.**



Results-Object

	Sub-elements	Items
Objectives	Collaboration skills	<ul style="list-style-type: none"> • Ability to have intercultural discussions and conversations; • Smooth communication and mutual understanding; • Cross-national systems building; • The need to internationalize the curriculum; • Collaboration in project-based learning.
	Language skills	<ul style="list-style-type: none"> • Reading and writing skills in business English through discussion; • Foreign language vocabulary acquisition.
	Cultural awareness	<ul style="list-style-type: none"> • Stereotyping and misperceptions in organizational behavior; • the importance of diversity in education; • Teachers' possibilities for implementing culturally appropriate writing practices; • To share different thinking and life experience.
	Intercultural competence	<ul style="list-style-type: none"> • Components of intercultural competence can be understood and applied (for teachers).
	Motivation	<ul style="list-style-type: none"> • Learners' interests in cultural diversity; • Foreign language learning motivation; • Technology-based education is included by Higher education officials.
	Problem-solving skills	<ul style="list-style-type: none"> • Introduction and simple application of design methods.



Results-Rules

	Sub-elements	Items
Rules (Pedagogical strategies)	Group discussions	<ul style="list-style-type: none"> • Facilitator role of teachers in discussion board; • Instructors debrief students frequently; • Cultural diversity activities in school as learning materials; • Virtual partner(s) group discussion about international current events; • Collaborative Online International Learning; • Cross-cultural management problems in corporate settings as learning materials.
	Project-based learning	<ul style="list-style-type: none"> • Mixed multi-cultural project groups; • Customer–merchant model; • Different roles in collaboration (relationships with Sternberg’s thinking styles inventory) ; • Experiential and reflective learning.
	Problem-based learning	<ul style="list-style-type: none"> • (Rubin 2009).
	Cultural consideration in feedback	<ul style="list-style-type: none"> • Power distance considered in instruction; • Online learning combined with culturally responsive teaching strategies.
	Digital game-based learning	<ul style="list-style-type: none"> • Learning games designed based on cross-cultural psychology

<https://github.com/wentingsunhu/What-Efforts-Have-Teachers-Made-to-Enhance-Online-Learning-across-Cultures-in-the-Digital-Age-.git>



Results-Outcomes

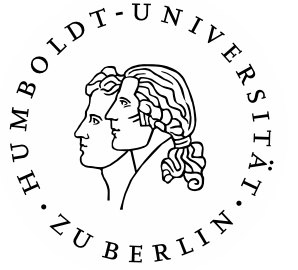
	Sub-elements	Items
Outcomes (Learning outcomes)	Learning performance	<ul style="list-style-type: none"> • Motivation (Lin and Yang 2015); • Cross-cultural competence; • Team cohesion; • Skills at problem-solving; • Teachers' skills at feedback-giving; • Distance work skills; • Social and interpersonal skills; • Deep understanding of diversity in education; • Different types of visualization forms in discussion; • Self-awareness.
	Learning measurement	<ul style="list-style-type: none"> • Discussion posts; • Peer assessment and/or self-assessment; • Reflective tasks; • Pre-and post-assessment; • Task presentation.

<https://github.com/wentingsunhu/What-Efforts-Have-Teachers-Made-to-Enhance-Online-Learning-across-Cultures-in-the-Digital-Age-.git>



Discussions and conclusions

- Not every selected article presents all answers to the seven factors of activity theory.
- Teachers put more effort into the combination of real-time data about students learning behaviours, instead of following an existing cultural framework
- A high-level requirement for the cross-culture ability of online teachers.



Future studies

■ Self-regulated learning (how to learn):

e.g., whether online teachers have taught the differences in learning strategies between computer-supported collaborative learning environments and traditional face-to-face collaborative learning environments?

■ Professional development (how to teach):

e.g., have online teachers been given some communication tips in cross-cultural learning groups?

■ Technology support (how to design):

e.g., how to take advantage of communication technologies to improve the quality of cross-cultural online learning and whether it is possible to use learning analytic technologies to assist teaching and learning in cross-cultural online learning contexts also needs further exploration?



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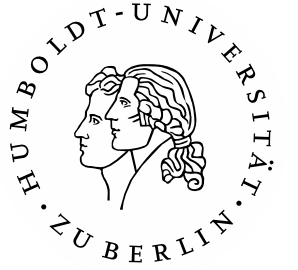
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