

Contextual Influence Factors on Educational Scenarios

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Contextual Influence Factors on Educational Scenarios

Education is widely seen as an important means of addressing both national and international problems, such as political or religious extremism, poverty, and hunger. If publicly available educational resources (OERs) shall help overcoming the educational gap, localization is one of the major issues we need to deal with. Educators as well as learners need to be supported to determine adaptation needs. This paper provides a list of possible influence factors on educational scenarios which are defined as context metadata. In the given form, the list needs to be understood as an addendum for the paper entitled ‘*Open Educational Resources: Education for the World?*’; It is being published in the volume 3, issue 2 of the Journal Distance Education in 2012.

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Introduction

The following table is an excerpt (regarding the number of displayed attributes per factor) of our list of Influence Factors defining the Context of Learning. All are defined as Metadata, following and extending the requirements of the national German standard for quality assurance in e-Learning “DIN PAS 1032”¹. However, the full table contains much more information on each influence factor, e. g., fields for the date when data have been collected and/or published, expected data-structures to represent an item, sources where related conflicts in learning scenarios are documented or which served as argument to define the influence factor, sources of information where a specific attribute has been collected, known interdependences to other influence factors, and the status as “comparable” or “descriptive”. Also, further individualized aspects are included, related to educators, authors and companies/institutions that like to define their own specific context which they think is different to the common regional context. Most of the influence factors can be collected by Internet research, some commonly are understood being static, others underlie frequent changes. Of course, not all aspects are relevant in every situation and/or apply to every educational resource. A lot of the aspects have been designed with the perspective on the planning of new international programs and institutions. A selective list for users who need to adapt learning resources will be implemented as a special view in our database.

Some of the data resulted as outcome of our research on learning culture (LC) that has the purpose to better understand culture-related attitudes and expectations of learners and to collect related data in various national and regional settings (Richter, 2011b)². Our so far collected data cannot be generalized to all learning scenarios within a certain context. In Germany (which is a language-homogenous context), we conducted the survey in the fields of Adult Education and Higher Education and found occasional disparities between different company-contexts (company culture seems to affect learning culture) but significant differences when comparing university- with company-results. We did not yet try to implement our survey on school level. Although in Germany, the results from all three investigated universities were similar to each other, we recommend against a generalization on national level, at least as soon as different languages are spoken in the country and/or societies/tribes have been merged.

A first version of this table which exclusively based on data that derived from the literature (without any metadata regarding our survey on learning culture), was published in 2007 in the proceedings of the eASEM conference in Seoul, South Korea (Richter & Pawlowski 2007)³. In the meantime, we verified the usefulness of the influence factors, modified the original list of contextual influence factors by deleting aspects that were not collectible or finally did not describe what we hoped for, improved their descriptions, and collected data in various contexts.

¹ The German standard DIN-PAS 1032 is right now discussed in the workgroup 5 of the ISO/IEC JTC1 SC36 to (partly) becoming an ISO standard.

² Richter, T. (2011b). Adaptability as a Special Demand on Open Educational Resources: The Cultural Context of e-Learning [Special issue]. European Journal of Open, Distance and E-Learning. Retrieved from <http://www.eurodl.org/index.php?article=460>

³ Richter, T., & Pawlowski, J.-M. (2007). The Need for Standardization of Context Metadata for e-Learning Environments. In: Lee, T. (Ed.), Proceedings of the e-ASEM Conference, Seoul, Korea, Oct. 2007, Open University Korea, pp. 41-72.

The recent version is still being further developed but right now is being implemented in a database. As for almost all listed aspects, we were able to collect the full dataset in Germany, South-Korea, Austria, Switzerland, Great Britain, Ireland, and Bulgaria. Collections in Turkey, Belarus, and Cameroon are still running. Thus, it can be expected that the data might be available in most (at least “developed”) countries in the world. Apart from Germany and South Korea (where we collected the data ourselves), university students have completed the datasets in the context of their seminar works or thesis. Each of the students came from the related contexts they wrote about and were familiar with the specific national languages. However, those data still are to be verified. In Germany and South Korea, the data have already been verified and in both contexts, the number of students, participating in the LC-questionnaire was high enough. For further information or offers for supportive actions (data collection, translations), please feel free to contact us.

GID	Context-Block (Type)	Name	Description (kind)
01	1. Culture	Teacher's Role	Assistant or unfaultable authority (survey LC)?
02		Value of Errors	What do errors mean: a chance to learn or a disaster? (Survey LC)
03		Context Type of Society	Halls' Low/High context
04		Acceptance Level for New Technologies	Is new technology seen as good or as possibly evil?
05		Masculinity Index	Hofstede's Value for Masculinity Index
06		Index For Avoiding Insecurities	Hofstede's UAI value
07		Power Distance Index	Hofstede's PDI
08		Individualism Index	Hofstede's IDV
09		Cultural Meaningful Symbols	a list of meaningful symbols
10		Culture Related Heroes	Names of meaningful heroes within a society
11		Cultural Rituals	A list of meaningful rituals
12		Language	Language name(s)
13		Number of Different Societies	Dependent of # of languages
14		Cultural Variable Concerning Language	if and how cultural related semantic is interpreted
15		Communication Style	Direct or unsealed communication style
16		Humor	Kind of humour, classification possible?
17		Culture Specific Idioms	are there certain used idioms?
18		Preferred Media Types	Are there preferences implied by the type of society?
19		Gender Differences	Are learners with different genders equally treated?
20		Gaps through Gender Differences	specific gaps through gender differences
21		Social Capital	Key-value for social development
22		Language Writing Styles	Special writing styles (formal, direct,...)
23		Date & Time Formats	Special formats for date and time
24		Grammar	Special grammar available (or dialects)
25		Measures	Which kind of measures are common (i.e. metric, inch,...)
26		Currency	The currency within the country (name)
27		Icons	Are there known icons which are declined / preferred
28		Interaction Protocols	How do people communicate
29		Decoding Process	Previous cultural background, workplace, tool-related
30		Meditation Model	How people deal with information and store it
31		Common Scheme of Behavior	Is there a general opinion available
32		General Opinion	Society related opinions concerning certain subjects
33		Cultural National Taste	Does a national taste exist
34		Indigenous Cultures	Special attributes, open

35		Ability to Self-Motivate	Do learners need motivation help or can they motivate themselves (Survey LC)
36		Emotional Stability	How (& fast) do learners react on unexpected influences (acceptance level)
37		Culture Related Knowledge	Indigenous knowledge in special is meant
38		Pedagogical Approach	Are there culture related special pedagogical approaches
39		Regional Common Pedagogical Approach	Is a single approach preferred
40	2. Demographic	Birth Rate	Absolute, maybe regional differences
41	Development	Number of Inhabitants per Age-Group	Absolute value, maybe regional differences
42		Time related Population Development	Population development over time
43		Family Status	Role of the family and divide
44		Education Achievement	National divide of education (absolute / percent)
45		Ethnic Makeup	Ethnic groups, divide
46		Economic Status	Divide of riches
47		Technological State of the Art	Kind and divide
48		Technological Development	Expectable development within households, trends
49		Regional Population Density	Population density per region
50		Population Density & Time Zones	Population density per time zones (if there are more than 1)
51	3. Religion	Main Religion	Name of religion and attribute
52		Religious Conflicts	List of existing conflicts
53		Common Religious Rules	If religion rules inflict all-days live
54		Number of Significant Religions	Absolute value
55	4. Technical	Ownership of PC	Is it expectable? divide?
56	Infrastructure	Private Internet Accounts	Is it expectable? divide?
57		Television at Home	Is it expectable? divide?
58		Cell Phone	Is it expectable? divide? technology?
59		Common Computer Technology	Com. used Computer technology (MHz, graphic)
60		Com. Graphics Accelerator Technology	Expectable graphics power
61		Power Supply Infrastructure	Power supply given everywhere or only in congested areas
62		Communication Technologies	Kind of useable and used communication technologies
63		Mobile Technology Infrastructure	Quality of mobile access per region
64		Implemented Mobile Standard	Which standards are used, i.e. GSM, UMTS; density
65		Network Coverage Internet	Is Internet available everywhere or only in congested areas
66		Network Coverage Mobile Technologies	Is mobile technology (widely) usable everywhere
67	5. Rights	Special Laws	Unique laws or rules (company, society), sources
68		Base Set of Laws and Rules	Base set, containing education-relevant laws, sources
69		Accreditation Needs (Government)	Are there certain accreditation requirements per program type?
70		Intellectual Property Rights	Specials? list of sources
71		Data Protection Rights	Specials? list of sources
72		Specific Copyright	Specials? list of sources
73		Usage of Internet	Is the usage of Internet anyhow limited for example because of censorship
74		Accessibility Restrictions -Age Dependent	Are there age-related restrictions for content access?
75		Access and Spreading of Content	Is there censorship and are there restricted information?
76		Business Rights	Specials? list of sources
77		Gender Specific Laws	Are there Gender specific laws
78		Religious Motivated Laws	Are there Laws which belong to religion

79		Duties which affect e-Learning	Are there duties for learning (i.e. duty to go to school)
80		Controlled Historical Views	Restrictions concerning publishing historical views?
81	6. History	Point of Historical View	What's the society's point of view concerning history
82		Religious motivated Views of History	Are there special roles or historical events with religious influences
83		Special expected History-Related Views	Are certain history related views expected from certain societies
84	7. Politics	General Political System Type	What kind of political system reigns
85		Political Implementation	How is the political system implemented
86		Special Political Positions	Special positions different than expectable
87		Foreign Affairs	Country's relationship to others
88	8. State of Development	Current Technologies	Current technologies
89		Expectable Development	Tendencies in technical development
90		Duration Time	How long is state of the art active
91	9. Media Richness	Commonly Used Media Types	Are there already used media types (if others aren't)
92	10. Financ. Aspects	Country Efforts Supporting Education	What invests a country in: programs, schools, kids education, adult education,...
93		Financial Power in Private Households	Income vs. outcome
94		Spending Capacity in Private Households (Education)	Acceptance to spend private money for education (common amount / year)
95		Relation Internet Cost / Private Income	Percent internet access costs concerning private income
96		Gross Natural Product	Value – shows the ability of a country to invest in education
97		Total Indebtedness	Value – shows the ability of a country to invest in education
98		Discharge of the Dept	Value – shows the ability of a country to invest in education
99		Yearly Budget for Education	(From government) in total
100		Common Expectable Kids Education Cost	Amount of money a family has to commonly spend for kids education, i.e. in countries where basic education isn't free
101	11. Human Actors	Ability to stand Critics	Is critic comparable by learners?
102		Relationship to Authorities	Are authorities being out into question or do people blindly obey, Who is authority
103		Expectable Attendance for Volunteer Cooperation	is volunteer work expectable? In which level
104		Expectable Training Level concerning Group Work	Are the learners used group work? In which way
105		Expectable Group-Behavior	Are group members emancipated or is a single group member responsible (Survey LC)
106		Expectable Teaching-Goal	Which are the targeted teaching goals?
107		Need for Written Rules and Clear Duties/Goals	Do the learners prefer unchangeable rules / goals or want to have possibilities to self-control their effort
108		Learning Preferences	Are certain learning styles preferred (Survey LC)
109		Language Styles	Shown respect according recipients
110		Expected Tutor Behavior	Which role does the tutor have, assistant or authority (Survey LC)
111		Laud for Motivation Needed (How)?	What kind of motivation is expected (Survey LC)
112		LMS Style	Shall every courses have the same appearance
113		Level of Necessary Control	How much control is needed and expected
114		Self-Determination	Do learners want to have influence on their course management system and content (Survey LC)
115		Time Management	How do learners manage tasks (Survey LC)
116		General Pedagogical Philosophies	Are there general cultivated pedagogical philosophies

117		General Goal Orientation	Sharply focused, unfocussed (Survey LC)
118		Experimental Value	Abstract or concrete information preferred at learners side (Survey LC)
119		Program Flexibility	Learner need clear definitions or can change content (Survey LC)
120		Personal Coaching	Is personal coaching known and expected
121		Learner Control	Learners want to be guided or let free
122		User Activity	Self creation of content expected or clearly defined program
123		Cooperative Learning	Do learners work together to reach aims or do they rather work besides or alone (Survey LC)
124		Cultural Sensitivity	Is additional help provided because of cultural differences or exists xenophobia
125		Expectable Skills	Learner / tutor / Domain Expert
126		Conflict Management	Define if tutor can help to avoid conflicts (Survey LC)
127		Social Background	Region: learner, tutor
128		Personal Background/Experiences	Learner (i.e. relationship to Nature, Water, Fire, ...)
129		Preferred Learning Styles	Learner related – how do learners learn
130		Known Assessment Forms	Learner, tutor, Domain Expert
131		Cultural Background	Learner, tutor
132		Significant Life Experience	Wars, times of extreme fast development, catastrophes, ...
133		Learner Educational Background	Quality / content of classical education career
134		Type of Learning Pace	How fast can be learned
135		Type of (used) Interaction	Group work, relationship to others and teachers, ... (Survey LC)
136		Instructional Strategies & Methods	Familiar strategies and methods
137		Computer Literacy	Expectable computer literacy sites learners
138		Preferred Learning Environments	What is known, what is used
139		Self Set Educational Goals	Learner – what aim do learners have (i.e. social position, marriage, job, fun, interest)
140		Learner Types	Classification of learner types corresponding to
141		Common Learning Styles	Not necessarily the same as preferred learning styles
142		Learner History	Names of educating institutions (no quality statement)
143		Common Knowledge	In special in indigenous cultures: what is the learner supposed to know
144		Official Curricula	Governmental curricula if existent and available
145		Way how to give Feedback	Direct feedback or Indirect critic (Survey LC)
146		Level of Needed Assistance	Learners used to work solo? How much help are they used
147		Presentation Form	Special presentation form expected (i.e. film, text, tables)
148	12. Rules	Standards, Specific Agreements	Regional, company, industrial standards -> region, company
149	13. Companies	Business Model	Company's business model
150		Organization Structure	Company's organization structure
151		Corporate Design	Company's corporate design
152		Company Internal Policy	Company's policy (how, what and why to learn, how to deal with each other, etc.)
153		Company Own Contents	Own technical language, own processes, ...
154		Learning History	Company internal learning program - duties
155		Internal Restrictions	Company issue
156		Demands concerning Encryption	Company issue

157		Usable Transmission Protocols	Company issue
158		Usable Telecommunication Protocols	Company issue
159		Use of Personalized Data	Company issue
160	14. Geography	Number of Schools /Square meter/Inhabitant	Geographical divide
161		Number of Learners / Region, Class, School	Geographical divide
162		Level of Schools, Universities, Academies	In general and geographical divide
163		Type of Schools, Universities, Academies	In general and geographical divide
164		Available Subjects / Majors	In general and geographical divide
165		Geographical Ground	Hilly, Forest, See, Lakes, Flat ground profile, ...
166		Regional Symbolisms	i. e. Landmarks, etc.
167		Geographical Experiences	Raised in a desert may prevent understanding floods & related problems
168		Multiple Time Zones	Are there multiple time zones? How many, which direction
169	15. Learner Satisfaction	Learner Satisfaction, Known Demands	Blank field for documented learner wishes and expectations
170	16. Internet Security	Expected Data Security	Is something used and expected?
171		Encryption Restrictions	Government issue
172		Transmission Protocol Restrictions	Government issue
173		Services Restrictions	Government issue
174		General State of the Art	Region / Country / Company
175		User Needs For Security	Region / Country / Company