Full Length Research Paper

Students' attitude to cloud-based learning in university diverse environment: a case of Russia

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The paper explores the ways how Russian students with different social background view the cloud-based foreign language learning. The empirical data was collected through questionnaires and in-depth interviews of students from metropolitan and regional universities, taking into account the students' family incomes, ethnic and religious affiliation. Quantative and qualitative methods were combined to interpret the survey results. Statistical Package for the Social Science (SPSS) was used to process statistic data. The paper reveals the issues the students feel sensitive about. The research findings lead to the conclusion that it is the students' family background in terms of metropolitan or remote region origin and income level that most affect their positive/negative attitude and also the degree of aptitude to cloud-based learning. The research findings aim to contribute to better understanding of the issues regarding the overall cloud-based course design and implementation.

Key words: Cloud-based education, technology-supported foreign language learning, cultural diversity, ducation.

INTRODUCTION

Modern technologies have been changing and influencing the world of education with the strong focus on flexible ways for learning communities to access and share the information with a view to produce a new knowledge that matters both for the community as a whole and for an individual in particular. It is cloud-based learning that recently has become one of the most used terms when discussing the future of education. Cloud-based learning goes beyond a local institution server usage for educational purposes and lays technological grounds for learning community members to store and share learning objects. Developing multicultural environ-ment makes it of current importance for university graduates to master foreign languages and mediate across national cultures when working in multilingual specific professional settings. Thus, foreign language as a discipline becomes a must for university degree programmes curricula. So, universities turn to cloud-based language learning worldwide. The above statements stem from current publications related to the issues under study.

Research topic

The present research subject matter is the analysis of university students' attitudes to the cloud-based learning in general and foreign language training, in particular.

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The research object is the study of the above learners' attitudes taking into account their affiliation to social, ethnic, religious groups as the latter create the educational institutions multicultural landscape.

Research hypothesis

The authors' practice experience related to technology-supported foreign language training at University level has led to the present hypothesis that includes the following interrelated statements:

1. Russian students have different level of awareness and experience of technology inclusion into the academic studies; the above awareness and experience mostly relate to students' metropolitan/regional origin and family background, and might not be sensitive to students' ethnic or religious affiliation;
2. Russian students' attitudes to cloud-based foreign language learning hardly depend on the learners' affiliation to ethnic or religious community and are related to students' social background;
3. Students' dislikes of the cloud as a learning tool largely depend on the students' social background with particular focus on their way of life within a particular socio-economic environment;
4. Regardless of student identities' affiliation and social background university learners potentially view the cloud as a tool that goes beyond communication and might contribute to their professional development;
5. Students' values regarding cloud related foreign language learning vary due to their life within a particular socio-economic environment, and students might have specific expectations related to the cloud-based environment that relate to social aspects of learning;
6. Russian students with poor socio-economic background might view the potential cloud-based digital environment as a tool to get better access to learning resources, to get fair assessment and evaluation through learning.

Research goal

The research is aimed to analyse in what way Russian students' socio-cultural identity and background might affect their attitude to cloud-based learning in general, and foreign language skills training, in particular. The above issue has not been the subject matter to any research so far. The research results are meant to be used as background for drafting recommendations for culturally diverse university community that strives to go in line with cloud-computing-focused educational mainstream.

LITERATURE REVIEW

Scholars argue that cloud computing is supposed to be the mainstream of educational technology (Chang and Gütl, 2010; Mansuri et al., 2014; Pretlow and Jayroe, 2010; Rizzardini at al., 2012; Uden at al., 2013; Uden, 2014; Venters and Whitley, 2012). The above technology potential has become the subject matter for research with regard to various educational settings, including schools (Tan, 2009), universities (Bogdanovic et al., 2011), corporations (Kim et al., 2010).

Current research reveals that cloud computing techno-logy influences students' overall academic studies and foreign language learning in a positive way (Warschauer, 2011; Lin at al., 2014). Nevertheless, some scholars underline that representatives of different cultures (ethnic groups, Eastern or Western affiliation) might show different attitudes to cloud-based phenomenon due to their identities specific features (Ess, 2008). Current researchers view the identity as a complex phenomenon and a reflective self-concept that an individual derives from his or her family background, ethnic and religious affiliation, way of life within a particular socio-economic environment, etc. (Sim et al., 2005).

Scholars point out that Information and communi-cations technology (ICT) should be used for e-learning in a culturally acceptable way (Al-Doub at al., 2010; Baroud and Abouchedid, 2010; Liu at al., 2003; Misko at al., 2005). Nonetheless, a major attention is drawn to the fact that in the digital age people's attitude to web-based technologies and human behaviour in the digital community depend on the individuals' affiliation to a social group (Borstom and Sandberg, 2011). Both researchers and practitioners stress that students with social background that is characterized by poor/ or limited social economic opportunities are likely to suffer from limited computer and internet access (Gorski, 2003), and feel fear about being excluded from the ICT supported learning process (Clarke, 2002). The situation makes scholars and policy makers across the world explore the ways and tools to overcome learners digital divide (Aguinaldo, 2013; Gorsk,i 2003; Henning and Westhuizen, 2004; Odunayo, 2013; Slate et al., 2002; Solomon et al., 2003). Special emphasis is laid on possible ways to enhance technology-based social connectivity for educational purposes (Nissenbaum, 2009). Mention should be made that scholars should also highlight issues related to particular requirements regarding learning objects for web-based language teaching (Başal and Gürol, 2014; Warschauer, 2003). The current literature brief review has resulted in the pre-sent research topic, hypothesis, goal and methodology.

METHODOLOGY

The research included individual questionnaires and in-depth interviews of Russian students with different social, ethnic, religious backgrounds. Special emphasis has been laid on the findings interpretive paradigm, that draws special attention to individuals' opinions, their interpretations regarding the situations under study (Willis, 2007; Wong, 2006).

Participants' selection criteria

The selection criteria included metropolitan/ regional location of the university whose students participated in the survey, students' geographical origin (Muscovites, those who came to study at Moscow universities, students from universities of other Russian regions), respondents' ethnic affiliation, their family and socio-economic background. The total number of the students participating in the research practices amounted to 358 individuals with varied social background from 7 Russian Universities that differed in terms of their metropolitan/regional location. Moscow-based respondents were invited by the research team to participate in questionnaires and in- depth interviews on premises of Moscow universities whose leadership and faculty agreed to support the research initiative, motivate students to participate in surveys. Students from universities of other Russian regions were invited to participate in the research as part of their academic and scientific inclusion into Moscow –based students' forums and conferences as it was the simplest way to collect relatively comprehensive data from socially and culturally diverse community. As the research stages involved different techniques and numbers of participants, the participants' profile and research steps are described separately.

1st stage: Mixed questionnaires

The questionnaires appeared to be the initial step of the research. The goal of conducting questionnaires was to identify the general picture and basic perceptions of university students regarding their attitude to cloud-based foreign language learning, their experiences with regard to possible priorities and difficulties. The questionnaire combined closed-ended and open-ended questions. This "mixed" form of questionnaire was designed to get a larger number of respondents' answers while saving respondents' time. Those interviewed were asked first to indicate the chosen Yes/No answer option and then to provide their additional explanations regarding open-ended questions. The open-ended questions allowed the respondents to formulate their own answers which helped the researchers to specify the students' general perceptions regarding cloud-based learning. Thus, questionnaires made it possible to combine 'how' and 'why' questions, on the one hand, and 'who', 'how much/many', 'what and where', on the other. The individual questionnaire data was processed, provided that the respondent agreed to disclose his/her family, social, cultural background (average/well-off/low income family, parents as business men/ state officials/ doctors, teachers, etc., nationality/ethnical community). The questionnaire included the following questions:

1. Do you know about cloud as computer technology? Yes/No
2. What do you think of this technology?
3. Do you use cloud? Yes/No
4. How/Why (for what purposes) do you use cloud?
5. Do you know about cloud-based learning? Yes/No
6. What do you think of cloud-based learning?
7. Have you got any experience in cloud-based learning? Yes/No
8. If you have any experience in cloud-based learning, then specify the field and length of study, express your opinion about this form of learning (positive and negative sides, difficulties)
9. Would you agree to be included in cloud-based foreign language learning? Yes/No
10. If you do not agree to be included in cloud-based foreign language learning, please give your reasons.
11. If you agree to be included in cloud-based foreign language learning, please explain what you expect from this form of learning.
12. Do you think cloud-based and traditional foreign language courses differ from each other? Yes/No
13. What is the difference between cloud-based and traditional foreign language courses?

14. Do you think you need additional training skills to start cloud-based foreign language learning?

Each interview required approximately 30 to 50 min to complete. All interviews were completed within a three month period and processed electronically through the university data processing system.

Respondents' profile

The total number of respondents who agreed to identify themselves in terms of personal information about family, social, cultural background, amounted to 358 individuals. There was a balanced proportion of students from regional and metropolitan universities. The metropolitan or regional origin of students who represented Moscow universities was also counted. 30% of the participants across Russia identified themselves as well-off families, 48% of the respondents classified themselves as average income families, and 22% as low income families. 30% said their parents had their own business, 38% said their parents worked at state agencies, and the rest worked at public institutions as doctors, teachers, economists, etc. Among 358 respondents, 122 individuals attributed themselves to the Russian nationality, others identified themselves as representatives from Northeast Caucasian ethnic groups (66), Ukrainians (18), Tatars (34), Kalmyks (21), Kazakhs (11) Bashkirs (23), Kirgyz(14), Uzbeks (12), Azerbaijanis (17), Udmurts (11), Koreans (9).

It is interesting to note that respondents by their own initiative along with their nationality or ethnic group affiliation pointed out their inclusion into Western culture (38%), Muslim culture (40%), and Buddhist culture (22%). The respondents' original "terminology" is reproduced in the above sentence, though the authors of the article are aware of rather "conditional" division of the world major religions and cultures. This led us to the assumption that the world major religious cultures as philosophical framework for the world perception might be taken into account for present and further research, besides students' affiliation to ethnic groups and nation-alities. The questionnaires revealed that 30% of the respondents were Muscovites, 30% came to study at Moscow universities, 40% were students from universities of other Russian regions.

2nd stage: In-depth interviews

The next stage included in-depth interviews with those university students who had refused to be involved in cloud-based foreign language learning at the questionnaire stage. These interviews allowed researchers to explore and understand individuals' personal claims regarding the subject under study.

In-depth interview particular questions aimed to understand reasons for the students' negative attitude, and also focused on such issues as learning objects quality, students' requirements to the teacher and to the peers, to the procedure and techniques in relation to cloud-based foreign language learning process and environment.

The total number of those who participated in in-depth interviews came to 71 students that amounted to 19.8% of the total number of the survey participants. All interviews were conducted by professional interviewers on the face-to-face basis. The answers of only those who agreed to identify themselves in terms of personal information about their family, social, cultural background were counted for research data.

Respondents' profile

13% of the 71 respondents identified themselves as those from well-off families, 73% of the respondents classified themselves as

Table 1. Percentage of students in clusters, characterizing students' awareness of cloud-computing in education.

Clusters, characterizing students' awareness of cloud-computing in education	Percentage (%)
Students who were aware of cloud-computing technology	76
Students who used the cloud-computing technology for data storage	32
Students who knew about cloud-based learning technologies	43
Students who did not use this technology on technical grounds	14
Students who stayed apart from the cloud to keep privacy	10

average income families, 14% as low income families. 11% said their parents had their own business, 12% said their parents worked in state agencies, and the rest worked at public institutions as doctors, teachers, economists, etc. Some respondents attributed themselves to Russians (18), others identified themselves as representatives of Northeast Caucasian ethnic groups (5), Ukrainians (7), Tatars (4), Kalmyks (6), Bashkirs (6), Kirgyz (4), Uzbeks (4), Azerbaijanis (4), Udmurts (5), Koreans (3), and Kazakhs (5). Respondents pointed out their inclusion into Western culture (36%), Muslim culture (36%), and Buddhist culture (28%). The questionnaires and in-depth interviews revealed that 5% were Muscovites who studied at Moscow universities, 40% of the respondents were students from other Russian regions universities, 55 % came to study at a Moscow university from other regions. In terms of research methods in-depth interviews made it possible to combine 'how' and 'why' questions, and 'who', 'how much/many', 'what and where', as well.

Data statistic processing

Multivariate statistical methods (cluster, discriminant and factor analysis) and correlation analysis were used to survey data processing. A cluster analysis was used to specify what homogeneous groups could be identified as regards students' attitude to cloud-based learning. A discriminant analysis then profiled the above clusters in terms of those factors that specify the student groups characteristics. A factor analysis helped to determine a meaningful set of variables. The correlation coefficient was taken into account to measure the association between variables. Statistical significance of the student groups with different attitudes to cloud-based learning was scrutinized. To assess the significance of differences, the Student t-test was applied. SPSS was used to process the surveys data through the above methods.

RESULTS

Students' awareness of cloud-based learning

The cluster analysis resulted in identifying various clusters as regards students' awareness of cloud-based technology and its learning potential (students' percentage is shown in Table 1). Mention should be made that among those 43% of the learners who knew about cloud-based learning technologies there were 20% of Moscow students who finished Moscow schools, 10% of the students who came to study at Metropolitan universities, 13% of the students from regional universities. The students came from average income families (29%) and well-off families (14%). The percentage was not sensitive to students' inclusion into any ethnic community (p>0,

01). As regards 14% of the students who did not use this technology on technical grounds there was equally balanced percentage of students from Moscow and regional universities, from families with different income level, and representatives of various ethnic cultural communities. Among those 10% of the respondents who stayed apart from the cloud to keep privacy there were students who came from well-off families and studied either at regional universities (89%), or in metropolitan universities (11%). Special emphasis was laid on those 43% of the learners who knew about cloud-based learning technologies. This percentage included Moscow students who finished Moscow schools (20%), students who came to study at Metropolitan universities (10%), students from regional universities (13%), the students who came from average income families (29%) and well-off families (14%). The percentage was not sensitive to students' inclusion into any ethnic community (p>0, 01).

Students' experience in cloud-based learning

The above figures (on students' knowledge regarding cloud-based learning technologies) were practically repeated in the respondents' answer to the question about students' experience in cloud-based learning. When specifying the field and length of cloud-based studies, students said they had used the technology under study for learning materials and personal portfolios storage at school. They evaluated clouding technology positively but mentioned that technical problems might often become a stumbling block (21% of the students who finished Moscow schools, 22% of the students who finished regional schools). 15% of the students who finished Moscow schools, and 17% of the students who finished regional schools pointed to the negative fact that cloud technology was used only for information storage and presentation purposes and was not used for class community communication. The percentage was not sensitive to students' inclusion into any ethnic or cultural community (p=0.828).

Students' attitude to cloud-based foreign language learning

The cluster analysis resulted in identifying the two

clusters as regards students' readiness to engage in cloud-based foreign language learning: 80% of the learners agreed to engage in cloud-based foreign language learning while 20% stated the opposite. The percentage was not sensitive to students' inclusion into any ethnic or cultural community (p>0, 01) though it reflected the difference between students in view of their socio-economic background. The discriminant analysis demonstrated as statistically significant (λ = 0,113 $\chi2$ = 4,00 p <0,0000, 85% of matches belonging to the class) students' families financial status. The reasons for students' negative attitude to cloud-based language learning were revealed later on at the in-depth interviews. 80% of the students agreed to be included in cloud-based foreign language learning, and provided a set of statements regarding their expectations on the proposed format of studies.

Students' expectations and values related to cloud-based learning

As a result of factor analysis, the following factors characterizing students' expectations were identified, the percentage of explained variance was equal to 54%.

1st factor - ability to set an individual plan for course study (0.834), mentioned by 65%, including 44% of the metropolitan students and 21% of regional university students, both groups from average and well-off families,
2nd factor - more individual approach of the teacher to the student (0.832), mentioned by 64%, including 34% of the metropolitan students and 30% of the regional university students, both groups from average and low income families,
3rd factor -sustainable communication and learning group members discussions in a foreign language with the focus on the future profession (0.827), mentioned by 49%, including 39% of the regional university students and 10% of the metropolitan students, both groups from average and low income families).
4th factor - learning under the teacher's guidance (0.804, 0.793), mentioned by 56%, including 41% of regional university students and 15% of the metropolitan students, both groups from average and low income families).
5th factor - foreign language learning through the real world situations related to future profession and not the artificial and abstracted textbooks tasks (0.793), mentioned by 75%, including 52% of the metropolitan students and 23% of the regional university students, both groups from average and well-off families.
6th factor - detailed assessment and transparent objective assessment through clear-cut instruments (0.783).
7th factor - social inclusion and elimination of the existing social/financial differences between group members (0.749), mentioned by 41%, including 29% of the regional university students and 12% of the metropolitan students, both groups from average and low income

families.

The above percentage was not sensitive to students' inclusion into any ethnic or cultural community (p>0, 01). All of the above parameters were mentioned by the students who came from average and low income families. Students from well-to-do families underlined the importance of the individual course plan, sustainable communication, and the real world situations efficiency for foreign language course. The comparison of Moscow universities students' points of view and other regional universities students' opinions reveals that Moscow students focus more on individual learning trajectories while regional universities students think of sustainable communication and learning group members discussions under the teacher's guidance. 65% of the respondents mentioned that they would prefer to choose a monitor to organize their intra group communication and discussions for learning activities. Among this percentage there were 55% of the students who represented regional universities and came from average and low income families and 45% of the students who represented metropolitan universities and had the same family financial status. When asked about the difference between cloud-based and traditional foreign language courses, all the respondents explained that the relevant difference concerned the extent to which the ICT technology might be used through the course. Besides, all the respondents underlined the importance of face-to-face classroom discussions and simulations in a foreign language, apart form virtual collaboration. 56 % of the respondents said they did not need any additionally trained skills to start cloud-based foreign language learning, 33% mentioned they needed specific instruction regarding the cloud-based learning procedure (step by step guidance with regard to each module content and assignments). Among these 33% of the respondents, 26% were students from regional universities and from low income families. The rest of the respondents were from metropolitan universities and from low income families. What is more among these 33% of the respondents there were students who affiliated themselves with Muslim, Buddhist and Western cultures.

Reasons for students' negative attitude to cloud-based learning

20% of the respondents stated they would not like to be part of cloud-based learning community. Special emphasis is laid to socio-cultural profile of the above group presented in Table 2. The data processing revealed that the figures summarizing the respondents' answers to the questionnaire and in-depth interview questions made it almost impossible to identify the fixed correlation between the students' ethnic or religious affiliation and their attitude to the cloud-based learning and relevant replies (p>0, 01).

Table 2. Socio-cultural profile of students who rejected the cloud-based learning.

Students' geographical origin	Percentage (%)	Reasons to reject cloud-based learning	Cultural/religious affiliation in %
Students who came to study at a Metropolitan university from other regions	80	They came to Moscow to enjoy the full time studies to communicate with prominent professors in person, to enjoy the face-to face interaction with peer	Western culture (40%), Muslim culture (30%), and Buddhist culture (30%).
Muscovites	5	Did not like to be involved in the cloud-based learning as they came from low income families and had limited opportunities to use internet at home, they were afraid that the university would not provide good Internet access on its premises and they would have to search for Internet access at additional cost.	Western culture (50%), Muslim culture (40%), and Buddhist culture (10%).
Students from regional Russian universities	15	Fear regarding local university technology equipment and teachers' possible lack of readiness to properly organize cloud-based learning.	Western culture (30%), Muslim culture (40%), and Buddhist culture (30%).

Statistics about significant difference regarding variables

The overall discriminant analysis included 27 variables, registering students' geographical origin (metropolitan students/students who came to study at a metropolitan university/ students from regional universities), ethnical/religious affiliation (Western/Muslim/Buddhist culture affiliation) and family income status (well-off/ average/ low income). Two canonical functions were identified and proved the significant difference for further interpretation: students' socio-economic status (0,61% dispersion, p<0,000000), students' geographical origin (0,32% dispersion, p<0,000005). The functions are allocated as follows: on the students' socio-economic status function variables regarding students from well-off and average income families are at the pole of positive attitudes, while variables regarding students from low income families are at the pole of negative attitudes. As regards the students' geographical origin function variables linked to Metropolitan students are at the extreme pole of positive attitudes, variables linked to students from other regional universities and variables characterizing students who came to study at a Metropolitan University from other regions are switching to the pole of negative attitudes.

DISCUSSION

Russian universities are characterized by really varied student community, social identity representation, learners have different experience of technology inclusion into the academic studies. The survey results showed that Russian students' attitudes to cloud-based foreign language learning hardly depended on the learners' affiliation to ethnic or religious community (p>0, 01). The data regarding the Russian cloud-based university environment go in line with A. Clark's (Clark 2002) findings as regards social exclusion through on-line learning in British educational institutions due to students' different social background.

According to the questionnaires, students' awareness of the cloud computing as a learning tool might be related to students metropolitan/regional origin and family back-ground, and it is not sensitive to students' ethnic or religious affiliation (p>0, 01). Although, only half of those questioned regarded the cloud computing as a learning tool. Students' awareness of cloud computing educational potential might depend on the students' previous schooling experience as regards location (regional/metropolitan) as the questionnaire revealed that metropolitan students had wider experience related to cloud use for educational purposes (p<0,003). These findings

regarding the Russian higher education are apt to prove J. Sim, R. Viden and P. Powell's data revealing that e-learning in general does not exclude social economic elitism, for instance, in UK higher education (Sim, Vidgen, Powell, 2005).

It can be concluded that to some extent, students' dislikes of the cloud as a learning tool do not depend on the learners social, ethnic, religious, etc. affiliation and might arise from poor technical support (p<0,0001). Besides, students' dislikes of the above technology might be related to privacy issues (p<0,001), that concern mostly respondents who studied at regional universities and/or came from well-off families (p<0,04). Thus, the present research data specify the importance of privacy matters for the cloud-based learning environment, though it was R. Sobel who previously indicated similar issues as relevant points with respect to web-based learning environment ethical aspects (Sobel 2012:48-49).

The questionnaire showed that vast majority of the respondents potentially viewed the cloud not just as a data storage instrument, but as a tool for communication in the learning environment with a view to learn foreign language for specific purposes related to future profession (p<0,01). The above attitude was related neither to students' metropolitan/regional origin nor to their families' income level, or students' ethnic/religious affiliation (p>0, 01). The research data and its statics processing showed that it was not students' ethnic or religious affiliation but their families' financial status (p<0,01), and students' regional/metropolitan origin (p<0,02), that influenced the list of students' values regarding cloud related foreign language learning. Teachers, who are going to engage their students in cloud-based learning should take into account the fact that students who came from families with average and low income families made up a more detailed list of cloud-based foreign language learning values, drawing a specific attention to assessment issues (p<0,01), structured multidirectional communication under the teacher's guidance (p<0,03) while students from well-to-do families highly evaluated individual learning trajectories (p<0,02) and real world professional challenges inclusion into the course (p<0,04).

The above figures lay grounds on further elaboration of the scholars' implications as regards on-line learning assessment design (for instance see: McLoughlin, 2001; Wang, 2007) with particular emphasis on cloud-based learning environment and the above list of values as the basic criteria set for assessment. The survey results make the authors argue that students' refusal to be engaged in cloud-based learning is not affected by their inclusion in a specific ethnic or religious community and largely depends on the students' social background with particular focus on their regional/metropolitan origin (p<0,02), and family income level (p<0,01). The above figures make it possible to apply and specify with regard to cloud-based university learning environment the statements by such scholars as Slate et al. (2002) who

underline that in the digital age, people's attitude to web-based technologies and human behaviour in the digital community depend on the individuals' affiliation to a social group. The present survey data contributes to the above argument as the respondents' opinions prove that cloud-based technology affects learners' identity and shifts focus from their ethnic and religious self-perception onto the socio-economic aspects regarding students' identities, at least in view of Russian multi ethnical and multicultural student community.

The present research findings show that Russian students from families with limited social economic opportunities are sensitive to digital divide. The potential cloud-based digital environment is viewed by the above learners as a tool to get better access to learning resources (p<0,03), to avoid unjust assessment and evaluation (p<0,01) through learning activities that might be more visual due to the cloud-based environment specifics. Thus, the cloud-based foreign language learning can be viewed as a tool to enhance ICT-supported connectivity for developing a personality, forming social skills and maturity as students value cloud as a tool to increase social connectivity though fair assessment.

The present research has made it clear that learning objects for cloud- based learning should meet students' expectations in terms of their individual trajectories of learning, social inclusion and digital divide exclusion.

CONCLUSION AND RECOMMENDATIONS

The analysis of students' attitudes to cloud-based foreign language learning is important as the relevant data can contribute to teachers' awareness and planning of students' cloud-based cognitive activities in terms of learners' dealing with learning objects, processing the shared knowledge and choosing communication trajectories within the learning community. The cloud-based learning environment should be designed with the view to enhance human performance equally for representatives of varied social identities and improve students' self-esteem and self-confidence. The survey results made it possible to conclude that cloud-based foreign language learning requires integrated didactic and management efforts on the following aspects:

1. careful explanations as regards privacy issues
2. sustainable technology access check and control
3. varied trajectories of students' inclusion into learning activities and knowledge creation
4. each student's individual guidance by the teacher
5. real world tasks and situations for learning activities
6. need for a course facilitator/coordinator
7. shared knowledge tools
8. round up communication and discussion
9. tools to support each learner's social inclusion
10. time and room for individual reflection over learning process and outcomes

The surveys data lay grounds for offering possible recommendations for the teaching staff that plan to engage students in cloud-based foreign language learning. Teachers should offer the students a question-naire before the cloud-based learning commencement to understand learners' views related to the technology under study. Students' social and cultural background should be analyzed by the teacher to think about possible micro groups for performing task-based assignments, the above group members should proportionally represent learners with different social background and learning experience.

Learning objects should be designed for students with different preferences regarding their style of earning and desired level of social inclusion and degree of aptitude to participate in knowledge sharing and creation in a foreign language. Learning objects should be designed with the view to foster students' foreign language skills related to future professional activities in particular professional settings. The teacher should be prepared to spend much more time for learning objects design and individual guidance and the faculty management should be made aware thereof in terms of balancing teacher's workload and salary level. The teacher should carefully observe the learners' multidirectional communication to prevent students from underestimated or exaggerated evalua-tions and foster positive shared learning environment. The teacher should lay emphasis on possible differences in students' attitudes and behaviour due to their varied social perceptions.

The teacher needs to make sure that each student feels part of the learning community, build a learning environment that encourages every students' contri-butions and allows time for individual's reflection over the learning process**.**

Conflict of Interests

The author(s) have not declared any conflict of interests.

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