The European Proceedings of
Social & Behavioural Sciences
EpSBS

Future Academy

ISSN: 2357-1330

https://dx.doi.org/10.15405/epsbs.2019.04.02.82

EDUHEM 2018
VIII International conference on intercultural education and International conference on transcultural health: THE VALUE OF EDUCATION AND HEALTH FOR A GLOBAL, TRANSCULTURAL WORLD

ICT-DRIVEN LEARNING PRACTICES AS A FACTOR OF SOCIAL INEQUALITY IN RUSSIAN HIGHER EDUCATION

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Abstract

The paper seeks to analyse the benefits and problems of ICT-driven university courses regarding the issues of social equality. Advances in technology, along with student enrolment size, have encouraged many universities to offer ICTs-driven distance learning courses. Current literature suggests that ICT have contributed significantly into solving the issues of social equality in higher education by making higher education institutions more accessible for diverse student population. Currently, students have equal access to universities irrespective of their gender, race, income, place of residence, health status, special needs, and complex schedules. Yet, the question arises whether the equality in access to higher education implies equality of learning outcomes. The paper discusses quality issues of ICTs-driven learning practices in higher education institutions from the perspective of the key social actors. Data were collected from a serious of sociological surveys conducted in the Ural region (Russia) in 2015–2016. The main focus is on the quality of learning outcomes: fundamental knowledge, professional skills, and capacities required by the labour market. The authors argue that on-line ICT-driven learning provides numerous benefits in terms of equality of educational opportunities. However, there are constraints to achieving high quality learning outcomes. These can include lack of appropriate learning practices and interaction modes. The authors conclude that, despite ICT educational potential educators must take consistent action to ensure high quality standards of ICT-driven higher education programs.

Keywords: Distance education, higher education, inequality, interaction practices, learning outcomes, quality of education.

https://dx.doi.org/10.15405/epsbs.2019.04.02.82
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eISSN: 2357-1330

1. Introduction

Currently, we can observe increasing expectations in society for a higher education qualification for access to prestigious positions in society. Higher education is considered to be a resource, the capital for investment. Obtaining quality higher education is the major fundamental condition for a sustainable professional career, occupation of a certain social niche in the society structure, its stratification into the strong and the weak (Konstantinovsky, 2010).

Traditionally, there have been some barriers to access higher education institutions. Most challenging barriers have been those related to gender, race, income, place of residence, health status, special needs, and complex schedules. In recent literature, international researchers have attempted to assess the influence of geographic accessibility on the decision to earn a degree at a higher education establishment (Helbig, Jaehnen, & Marczuk, 2017; Cullinan & Flannery, 2013; Finger, 2016; Parker & Jerrim, 2016). It is overall admitted that the proximity of universities is of great importance, while travel distance has a significantly negative impact. In particular, lower social classes and lower ability students tend to be more disadvantaged, whereas socially advantaged students feel generally less constrained by the institutional characteristics presented to them (Finger, 2016). Importantly, being a crucial factor, geography not only affects the decision to participate in higher education, but also shapes the development of aspirations, attainment, and choice in young people (Parker & Jerrim, 2016).

Rapid development of information and communication technologies (ICTs) contributed considerably into tackling the problem of social inequality in higher education. Current literature suggests that ICT have made higher education institutions more accessible for diverse student population. Li, Zhou, & Fan (2014) point out that ICT-driven distance education has a great potential for becoming a powerful device in improving equality in outlying poverty-stricken areas. Many students tend to prefer ICT-driven learning practices due to their distinctive advantages, including more affordable tuition fees, variable speed of study, etc.

Yet, despite the fact that access to higher education has grown substantially in the last decades, the evidence suggests that social inequalities continue to be reproduced. Delaney & Farren (2016) posit that working-class students more frequently access lower status institutions and courses that makes a negative impact on their labour market outcomes. The use of emerging technologies to access learning resources is quite often constrained by poor infrastructure and weak wireless network in rural communities (Ntloedibe-Kuswani, 2017).

2. Problem Statement

The problem consists in compatibility of two processes — quality of the education obtained at a higher education institution and its accessibility (Gorshkov & Klyucharev, 2011). Many researchers fairly note that distance education promotes an increase in social equality due to the following characteristics: it provides everyone with the opportunity to study, irrespective of gender, ethnicity and territorial belonging; it offers opportunities of lifelong learning; it has flexibility in terms of speed, space and time of learning; it can utilize a variety of knowledge transmission modes (text, audio, visual, etc.) (Monahov, Reschenhofer, & Matthes, 2013); it allows to implement the strategy of the accelerated education mode; it makes it

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possible to save commuting expenditures; and considerably contributes to the development of communication and interaction practices.

However, positive characteristics of ICT-driven learning practices are offset by its negative features. Klyucharev (2011) states that, although it has a great potential to equalize educational opportunities, it increasingly turns into a big "sieve" that filters people in terms of their future employability and social roles they are expected to play in the public life. Most important barriers to equality of educational opportunities include inequality of income, inequality in access to the Internet and inequality of learning outcomes.

Distance education fails to tackle the issue of social inequality because higher education is becoming more and more expensive. Not all segments of the population have equal financial resources and are able to afford such education owing to essential differentiation in their income. As a result, it promotes the reproduction of the existing social inequality, as parents increasingly tend to invest in their children's education, thereby reproducing authoritative and possessory groups: rich parents are able to afford better education for their children while the poor cannot do that. In fact, there appear two strategic lines — for the wealthy and for the poor, for those who have income and for those who are economically disadvantaged. In 2000 in Russia only half of overall student population at higher education institutions paid for their education, today two thirds of students pay tuition fees (Klyucharev, 2011).

Digital divide is one more factor of inequality in higher education, i.e. the Internet pervasiveness, access of the population to information and communication network, and technical infrastructure at educational institutions. Admittedly, ICT-driven distance education can act as an important channel for levelling-off differences in social equality (Klyucharev, 2011). At the same time, despite the increasing intensity and uniformity of the Internet distribution across Russia (overall, the access to information and communication network made up 70.7 % in 2016), the factor of territorial inequality still plays a crucial role, reproducing inequality among inhabitants of rural and urban areas. Importantly, the overwhelming majority of Russian people can enjoy the access to cutting-edge digital technologies both in terms of material (availability of computer), and infrastructure opportunities (Internet coverage in the area of residence). However, residents of big cities still have some advantages compared to villagers (Gorshkov & Tikhonova, 2018).

Regarding learning outcomes, there are many discussions about the quality issues in ICT-driven learning practices compared to traditional educational mode. Educators are not unanimous how to evaluate quality and effectiveness of ICT-driven distance learning. It is often evaluated against student learning outcomes (Ni, 2013). Supporters of online distance learning attempt to demonstrate that diverse online classrooms can create learning outcomes that are largely unavailable in a traditional classroom (Kulkarni & Cambre, 2015). For instance, globally diverse discussions arranged via ICTs are reported to boost student performance and engagement. Overall, it is admitted that ICT-driven learning practices tend to be more student-centred, less intimidating, and encourage greater participation than classroom interactions (Ni, 2013). Yet, it is still controversial, whether the introduction of ICT is likely to influence learning effectiveness. Opponents express concerns that students in online environments feel more confused, and frustrated, and, as a result, their learning effectiveness and satisfaction can be reduced (Zaborova, Markova, & Glazkova, 2017).

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3. Research Questions

Does the equality in access to higher education implies equality of learning outcomes?

4. Purpose of the Study

The study aims to identify and analyse positive and negative aspects of ICT-driven learning practices in distance education mode regarding their influence on social equality.

5. Research Methods

5.1. Data Gathering

The research was conducted in the fall of 2015 (N = 703 people) and repeatedly at the beginning of 2016 (N = 830). The general totality made up students from two higher education institutions based in Ekaterinburg — the Ural State University of Economics (USUE) and Ural Federal University named after the first President of Russia B. N. Yeltsin (UrFU). These are the biggest higher educational institutions of Sverdlovskaya Oblast where the overall student population exceeds 50 thousand people. Annual enrolment makes amounts to 15 thousand young people. Most of the interviewed students do their degree course fully at a distance (65.6 %), part of them do a correspondence degree course (21.8 %), the others earn a degree course in the accelerated mode. The author's online questionnaire (online poll of the target audience of limited volume) was offered to distance senior students of both universities (bachelor and master degree courses). The questionnaire sample was available through a live online link distributed by the management authorities of universities Distance Learning Centres.

5.2. Instrument

The questionnaire contained a total of 26 questions, among which there were 4 questions with a 5-point Likert scale, giving students an opportunity to give assessment ranging from 1 = "strongly disagree" to 5 = "strongly agree". Some questions had the option "I find it difficult to answer". The scope of the topics covered in the questionnaire included: the general use of technologies and resources, efficiency of distance learning, motives to choose this mode of learning and the problems, encountered by students, students' interaction and communication practices, their self-assessment of the knowledge obtained, satisfaction with quality of learning, acquired through distance mode of learning.

6. Findings

Our data confirmed the fact that ICT-driven distance education promotes the levelling off in social groups as it allows to offset the factor of rigid temporary and spatial attachment to the place of residence and place of study. Respondents noted that the main reasons why they chose the distance mode of learning was "possibility to combine work and studies" (72 %) and "possibility to do a degree course without leaving the place of residence" (58.6 %), flexibility in choosing the time for studies (26.1 %).

At the same time, our research showed that the tuition fee acts as a contradictory factor: it overall increases inequality at the level of society when a young person faces a choice whether to choose fee-paying

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or free education, but it offsets the inequality regarding tuition fee for various modes of learning. So, at Ural higher education institutions the annual tuition fee in full-time courses reaches 147 thousand roubles and over, while the tuition fee in the online distance mode is half as high. For instance, the tuition fee for a day-time bachelor degree course (Applied Informatics) is 137 thousand a year, whereas the distance degree course costs 60 thousand roubles. In the survey, 24.7 % of respondents indicated the reasonable tuition fee as one of the main reasons for choosing the distance education mode for their university degree course.

Our research showed that students doing a degree course at a distance are able to develop employability skills that are currently crucial for the labour market. Respondents reported that ICT-driven learning practices promote developing professional skills and competences such as the skill of self-study (73.3 %), ability to plan and organize study activities (61.2 %), time management skills (56 %), problem-solving (51.7 %), team work (42.4 %), taking on responsibility (42 %), working under pressure (28.7 %), creativity and initiative (24.9 %). Yet, given overall positive assessment of their distance learning experience, the respondents, pointed out its obvious shortcomings. Among distance learning challenges students emphasize “high degree of self-instruction” (53.8 %), “need for self-management” (31.1 %). Thus, lack of time management and self-study skills inevitably affects the quality of learning outcomes.

Inequality in knowledge acquisition by means of distance education also arises owing to inequality of individual abilities of students. According to our research findings, 20.5 % of students require close supervision of their instructors, and 31.1 % would like to have emotional contact with their instructor. These are quite difficult to arrange in ICT-driven learning practices. Therefore, it is not surprising that 13.1 % of the respondents stated that they experienced “a sense of isolation and alienation” during the course.

It is often very difficult to draw direct parallels between traditional and distance learning practices as they have distinctive differences in terms of teaching methodology and techniques, conditions of teaching and target student audience. The bulk of our respondents are working people aged 30 years old and over, most of them have demanding work and family related commitments. The overwhelming majority of respondents have to combine work and studies (88.9 %), moreover, 85 % of them have full-time employment. Constraints in the time students can spend on preparation for their studies do also affect the quality of learning outcomes.

All these issues result in a decrease in the satisfaction rate of distance students. Respondents pointed out that they associated high quality learning outcomes with the one implemented via blended mode (33.5 %) and traditional face-to-face mode of education (45.5 %). Only 5.7 % of the surveyed students assessed full time ICT-driven learning equally effective compared to traditional and blended modes.

7. Conclusion

To conclude, we would like to note that ICT-driven learning practices are increasingly used in modern Russian higher education and this process can be estimated as ambiguous and contradictory in terms of its influence on social equality. According to UNESCO (2002), ICT may be regarded as the combination of ‘Informatics technology’ with other related technology, specifically communication technology. Currently, universities use various kinds of ICT (teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counselling, interactive voice response system, etc). We consolidate with Young (2002) in the point that by allowing the academic institutions to reach

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disadvantaged groups, ICT-driven learning contributes to the democratisation of education and facilitates social mobility. We also agree with Noor-Ul-Amin (2013) that wider availability of best ICT-driven practices can foster improved academic achievement of students and have a strong impact on accessibility of education. However, we do believe that the use of ICT in education does not necessarily lead to the improved quality of learning outcomes. This requires maximizing ICT interaction potential and training faculty to utilise new ICT and adapt teaching methods. Overall, the findings of our study show that there is still the problem of social inequality in Russian higher education that can be fixed at three levels: at the level of society (tuition fee, legislation on ICT-driven education, etc.), at the level of a social group (territorial, reproduction of authoritative and possessory groups, etc.) and at the individual. At the same time, each factor can play a double role on each of these levels. For instance, a factor of affordable tuition fee, acting as a differentiating factor at the level of society, can offset this contradiction at the level of choosing a mode of education.

This study does not offer a conclusive answer to the question of ICT and social equality in higher education. Clearly, there is need for greater focus on social aspects of ICT-driven learning practices in education. We suggest that there must be conducted the faculty survey to identify their perception of ICT potential in tackling the problem of social inequality in higher education. Such research will assist educators in spotting the ways to address the issues of social inequality in modern educational environment.

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