A Critical Comparison of the Learning and Teaching Strategy of the University of Glasgow and the University of Manchester

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Abstract: The two broad currents of changes in formal higher education this study focuses on are: 'the shift from teacher-centred to learner-centred educational approaches', and 'integration of information and communication technologies.' The policy documents that are chosen to analyse in this essay are those of the University of Glasgow and the University of Manchester. This study found three claims that supported Learner centre Education, and the development of technology expanded students' access to education and challenging traditional teaching ways. UOG's policies reflect more first current of changes than UOM's, while UOM's policies reflect more second current of changes than UOG's. The first current of change is more explicitly reflected in UOG's education policy and is only implicit in UOM's policy. UOG regards technologies as flexibility to education, while UOM regards technologies as the fundamental support for new education. However, both the policies of UOG and UOM need to take more into account the challenges and response strategies brought about by these educational changes, and further refine their educational strategies to improve feasibility.

Keywords: learner-centred educational approaches, education and information and communication technologies, formal higher education.

1. Introduction

With the arrival of the information age and the deepening of globalization, higher education is facing multiple currents of shifts currently. The two currents of this study is going to talk about are: 'the shift from teacher-centred to learner-centred educational approaches', and 'integration of information and communication technologies.'

Firstly, this study will explain the first current of change. Although there is a difference between the definition of learner-centred education (LCE) and student-centred education (SCE), as they both refer to the opposite of teacher-centred education (TCE), they are assumed to be synonymous in my essay and referred to as LCE in the following text.

While LCE has become a buzzword in education and educational researches, it is difficult to have a clear definition. Bremner summarized the definitions of LCE in some widely cited literature by studying 326 journal articles, which are divided into 6 categories: active participation, relevant skills, adapting to learner needs, formative assessment, power sharing, and learner autonomy [1]. However,

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each teacher and researcher had a different concept of LCE. Some focus mainly on active participation, while others focus on learner autonomy, which means it is difficult to compare. The definitions of TCE and LCE used in my essay are mainly based on Schweisfurth' studies, as her definitions are widely cited and used as teaching materials in multiple universities [2]. More importantly, she provides a series of continuums from TCE to LCE, so that while defining LCE, we also define TCE. She mainly gave 4 continuums of TCE to LCE. Technique: TCE use "chalk and talk" as technique while LCE is more inclined towards group work. Relationships: the relationships between teachers and learners are more 'authoritarian' in TCE while more 'democratic' in LCE. Motivation: learners' motivation is 'extrinsic' in TCE while 'intrinsic' in LCE. Nature of knowledge: TCE see knowledge as fixed while LCE see knowledge as fluid [2]. This study will also adopt Bremner's meta-analysis of 326 journal articles to determine which definitions of LCE were more used in articles [1]. It shows that 'Active participation' (87%), 'Adapting to needs' (64%), 'Autonomy' (60%) are three most commonly used definitions. Therefore, motivation, relationships, and the nature of knowledge are the aspects of definitions that this study are more concerned about.

Secondly, this study will briefly explain the second shift. This trend mainly refers to the integration of two technologies, information and communication technologies. The first role is "the dissemination of information" ('grassroots video'), and the second role is "communication beyond geographical limitations" ('collaboration webs') [3].

Why did this research choose these two currents? Because the population entering universities is becoming increasingly widespread, diversity is increasing [4], and education is more urgently addressing real-life issues. This requires increased flexibility in teaching methods and content to meet the needs of new learning groups. LCE is a teaching method that emphasizes student autonomy and pays attention to student needs, so it is worth studying. The application of information and communication technologies can provide more possibilities for students' learning, and the survey data of many researchers shows that it is a fact that cannot be ignored that people have entered the information age, and the Internet has a significant impact on contemporary youth and students [5] [6]. The increasingly rapid updating of knowledge deeply affects the education sector. So how to make good use of technologies is an urgent issue that education needs to explore today, so this trend is very worthy of research.

The policies this research choose to analyse are those of the University of Glasgow and the University of Manchester. One of the reasons for choosing these two schools is that they are both public universities with outstanding teaching strength in the UK, with strong similarity and comparability. At the same time, they have some differences. The University of Manchester (since 2004) is a newly established school compared with the University of Glasgow (since 1451), and their teaching ideas are influenced by the educational thoughts of different times. And the policies of these two universities have varying degrees of attention and application to the two currents of changes this study choose. Relatively speaking, the policy of Glasgow University more reflects the implementation of LCE, while Manchester University pays more attention to technology, which are very comparable.

In the following section, this study will further analyse these two currents of changes and compare how the two policy documents reflect these two changes. Combining with the policy documents, this study will critically analyse the effects of these two changes on education, as well as the difficulties in implementation.

2. Literature Review and Policy analyse

2.1. Broad current1 (the shift from TCE to LCE)

TCE and LCE are constantly debated in the education. Proponents of LCE mainly have three key claims for it.

First is cognitive perspective, which focus on the effectiveness of learning. Constructivism emphasizes that every learner comes from a different cultural and social background, and they have different starting points [2]. Therefore, LCE, as a more democratic method that concerning student needs, is more conducive to learning. Cognitive psychology theories also support LCE, as they believe that learners have innate desires to work co-operatively, to make pattern, the jobs of educators are to encourage new neural connections [2]. LCE encourages collaborative learning, and teachers can assist students based on their existing patterns, making it better than TCE. Cognitive psychology also concluded that unusual stimuli and multisensory can help students gain long-term memory with more details [2]. However, this concept could not fully support LCE, as TCE is more helpful for teachers to control the classroom, carefully design the classroom, provide students with stimulation and unusual learning experiences. It is difficult for students to obtain stimulation on their own, and "stimulation" is also what behavioral psychology emphasizes [7]. In addition, according to cognitive psychology, information that has undergone multiple rehearses is more likely to enter short-term memory [7], which cannot support LCE either. Because the learning process arranged by teachers in TCE can better help students predict, rehearse and review knowledge.

Secondly, seeing from emancipatory perspective, LCE can promote rights and democracy. Knowledge is no longer imparted by teachers, and students have more power to choose. They can decide for themselves what to learn and what to become [2]. LCE can support the efforts of those who struggle for liberation like Paulo Freire and can also help break the situation that "education is reproduction of class inequality" [8] [9].

Thirdly, seeing from economic perspective, combining the theory of social efficiency, LCE can better prepare students for changing world [2], teaching students more real-life skills and job skills.

The shift from TCE to LCE is reflected in the education policies of both schools, but it is explicitly mentioned in UOG and only implicitly mentioned in UOM. UOG put student-centred, active learning as one of the core strategy pillars.

UOG's internal drivers point out the need to support diverse student needs, which is the call for LCE. Student-centered and active learning is the main learning and teaching approach for UOG, because this approach can positively impact on student engagement, retention and attainment [10]. The cognitive perspective mentioned earlier provides some support for improving student retention and attainment, but engagement still needs further discussion. UOG provides specific strategies for implementing, such as "interacting with their peers and with staff", "support active learning and increased student self- and peer-assessment", "develop both responsibility for their own learning and the collaborative skills that are essential in group work and team learning" [10]. Many of these strategies emphasize active and collaborative learning of students, but whether these strategies can achieve their goals in practice, and as mentioned before, whether these strategies can improve student engagement and attainment, remains to be discussed.

Based on my experience of taking student-centered courses at UOG, there are many aspects that strategies cannot achieve. For example, there are many group discussion sessions in the course, but the actual discussion situation cannot be guaranteed. In fact, due to the unfamiliarity between students, there were often only two or three students participating in the discussion in a group, or the content of the group discussion is not related to the course. In addition, interaction and questioning between students and teachers were usually limited to individual students. And the students did not participate in the assessment. The emergence of these situations actually reduces student engagement and

attainment, as introverted learners find it difficult to participate in discussions and interact with teachers, and teachers find it difficult to control the content of student discussions.

Compared to UOG, UOM only implies LCE in certain specific strategies, such as "create a more personalised and inclusive approach, giving students a greater voice" [11], "allowing study at any time and at a pace" [11], "flipped learning" [11]. But what UOM emphasizes is flexible education, which is a more flexible concept. This means that both LCE and TCE teaching approaches can be chosen by each student themselves, and the school will not force students to choose which teaching approach. But this implementation is even more difficult, as it requires strong information and communication technologies support.

No matter which school is implementing LCE, they will encounter many implementation difficulties, such as classroom size, teacher capacity, government's ability to effectively implement policies, supervision, and technical support, adaptability to local culture ("tissue rejection"), the gap between policy and implement [2], like UOG's strategy needs to be further refined to ensure learning quality, and UOM's policies require strong technical support.

2.2. Broad current 2 (Integration of ICT)

In the field of education, the widespread application of ICT made education public and interactive. It allows more possibilities for teachers to use video for teaching, data collection and assessment. It can also drive group work, where students can work with other students in distant places or engage in onsite work with teachers [3]. Technologies gave learners new choices. On the one hand, technology has widened access to higher education, especially for the least advantaged in our world [12]. On the other hand, it changed traditional educational modes, giving new models of curriculum delivery (like micro-credentialing phenomenon where one can earn an online certification in the form of a 'nanodegree'), changing the design of the curriculum, even affecting the selection of curriculum content, and also affecting the relationship between teachers and students [13].

However, whether technology is an enabler, or a disruptor of education remains a controversial issue among educators. One view holds that education cannot be led by technological innovation but should be treated as an auxiliary means. Opponents argue that people have entered an era of informatization, and the habits of the new generation of learners represent that higher education must break away from traditional education models and develop a new education model led by technology [3].

In fact, the education policies of UOG and UOM just reflect these two different views.

The policies of both schools explicitly mention the integration of ICT, but the difference is that UOM's entire policy was based on the application of technologies, as technology is a prerequisite for flexible learning [11]. UOG placed equal emphasis on both offline and online education, which can be seen like: "creating online resources, engaging online teaching", "decide how to make the best use of on-campus time, spaces, and interactions, and explore the potential for online learning" [11], "a blended approach to learning" [10]. But UOM is committed to developing technology, with the goal of providing comprehensive coverage for online education, and improving technological skills, so that diverse students can learn more flexibly [11]. This is a policy led by technology that is at the forefront of educational reform.

Seeing from the internal and external drivers provided by UOG policies, technology is only an auxiliary to adapt to the accelerated environmental changes and the special period of coronavirus pandemic, not something that students and staff believe must be mastered from internal driving [10]. However, UOM believes that technology should be implemented in all aspects of education, from resource acquisition to course selection, class modes, and certificate awarding, all of which should cover technical means to implement flexible learning, like digital learning, online learning and distant learning [10]. More importantly, they believe that the flexibility of education and the application of

technology require the fundamental changes in mindset [10]. UOM want to completely break traditional educational concepts, which is one of the biggest differences between UOM and UOG policies. Because UOG regards online learning as an auxiliary teaching method rather than the mainstream.

While considering how to use technology effectively in education, it cannot be ignored that the risks that technological changes may bring to education in the future. For example, when technology expands access for students to do the coursework and obtain qualifications, the ways in which students will access learning may change in the future, students may not want to start a three- to four-year university programme, the degree will be deconstructed as an "a la carte" set of courses [14]. In this situation, will university learning become fragmented learning? Is the coherence of the curriculum still important [15]? How should educators and scholars balance the coherence and flexibility of the new curriculum? How should they handle the new teacher-student relationship? For example, can "blended learning" mentioned in both policies ensure interaction and participation between online students and offline courses? How should educators and scholars solve the problem of teacher workload caused by the increasing communication between teachers and students [3]? How should students cope with the screening problem caused by the information explosion? These are the issues that should be actively predicted and thought about when formulating educational strategies [16].

Overall, in UOM's policy documents, there is a demonstration of how opinions from students and staff when formulating policies were collected, while UOG' documents do not, which reflects the idea of UOM's documents being more democratic and considering student engagement. UOG's policy shows a combination of online and on-campus learning, with strong planning, dedicated to providing excellent learning experience, while UOM's policy focuses more on flexibly meeting student needs with technical support. Both of them are consistent with the formal education, but their focus is different.

3. Discussion and conclusions

Above all, this research has chosen the two currents of changes: 'the shift from TCE to LCE' and 'integration of ICT', as well as the policy documents of UOG and UOM for discussion. This study has discussed the definition of LCE, as different educators have diverse definitions of it. Without a clear definition, subsequent arguments may lose their persuasiveness. My definition of LCE based on the research of Tennant's and Bremner's studies. Compared to TCE, the teacher-student relationship in LCE is more democratic, student motivation is more 'intrinsic', and the nature of knowledge is fluid. The reason for choosing their research as a reference is due to its large sample size and high popularity. Next, this study made it clear that the technologies to be discussed in this essay are information and communication technologies.

In the discussion of current1, this research found three claims to support LCE. From the cognitive perspective, LCE is more helpful for students to learn effectively and deeply. From the emancipatory perspective, LCE is a more democratic teaching approach that resists inequality. From an economic perspective, LCE can help students master useful skills in work and life. However, this study found that some viewpoints of cognitive theory are controversial and insufficient to support LCE. This current of change is more explicitly reflected in UOG's education policy and is only implicit in UOM's policy. However, the advantages and disadvantages of TCE and LCE, as well as the difficulty of implementing LCE, are still issues that these two schools and today's educators need to consider.

The development of technology has a significant impact on the education sector, expanding students' access to education and challenging traditional teaching ways. The question of whether technology is an enabler, or a disruptor of education is constantly debated by educators. UOG regards technologies as flexibility to education, while UOM regards technologies as the fundamental support

for new education. However, as long as it involves the application of technologies in education, schools should comprehensively consider the risks of this new mode of education and how to respond.

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