Study on the Necessity of China’s Higher Education Reform

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Abstract. The current situation of China’s education, especially higher education, was analyzed. After surveying journal papers in Chinese and English on webs, an interesting relationship between the education/higher education and world economy was found. Then foreign visiting activities were introduced to compare China’s university teaching methods with those of the University of Malaya. The status of students should be highlighted, and teachers, especially university teachers should learn lifelong time in order to make our higher education system and our society better.

Introduction

According to China’s Ministry of Education, there were 15.39 million professional teachers till 2015 in China[1], including 1.57 million college/university teachers. And in 2015, 0.28 million people became teachers, among those were 38,100 college/university teachers. Meanwhile, China’s institutions of higher education increased by 12% to 2845. So far, huge amounts of teachers have been working in 510,000 schools cultivating 306 million students in China’s education system on the world’s largest scale in order to support China’s sustainable development[2].

In 2015, I had the honor of being a Visiting Professor at the University of Malaya (UM). Beside attending the courses with the UM undergraduate students in Chemical Engineering, I was asked to participate a few teaching practices, such as evaluating diploma candidature defenses (CD) and academic papers. In the past one and a half years, I lectured several courses to many undergraduate students and graduate students using new ways and techniques I learned from the UM counterparts, and obtained some satisfactory results. Therefore, I tried to write a couple of articles to share with the fellows and peers who, hopefully, would have some gains.

Before I wrote my mind’s articles, I surveyed the current situation of China’s education and higher education with Chinese searching tool of Blyun[3]. I found a few interesting information, and then I searched relative English references on the data of ScienceDirect[4]. As far as I am concerned, the comparison is thought-provoking.

Journal Papers on Education and Higher Education in Chinese and English

Since the reform and opening-up in 1978, China’s education has been highlighting. Almost every family has been paying its earnest attention and most expenditure to its only child’s future education due to China’s one-child policy. Then, the diversification of educational activities led to a sharp increase in the number of various educators and inevitably result in an abrupt increase in the amounts of papers on education in China, especially since 2001 (shown in Fig.1 and Fig 2, obtained according to the data obtained by Blyun).

However, the increase of amounts of the Chinese papers has been stagnate since 2014, almost in line with the world’s economy. From Fig. 2, the decrease of Chinese papers on higher education could be seen in 2009 when global economic crisis broke out. Searching the keywords higher education using Blyun, a sudden decrease could be figured out in 2013. It was not unique, but had its counterpart if we check data using Since Direct in 2015 (seen in Fig. 2).
The annual amounts of Chinese papers on Education since 1902.

Figure 1. The annual amounts of Chinese Papers on Education since 1902.

The annual amounts of Chinese and English papers on Higher Education.

Figure 2. The annual amounts of papers in Chinese and English on Higher Education.

Figure 2. showed the same decrease trend of the amounts of Chinese papers after 2013 as that of English papers after 2015. However, the ratio of the Chinese papers on higher education to education was much less than that of the English papers according to the above figures because the amounts of Chinese papers on education was too large compared with those in English (seen Table 1).

Table 1. The amounts of journal papers in ScienceDirect on Education/Higher Education (2006-2016).

<table>
<thead>
<tr>
<th>Year</th>
<th>Education</th>
<th>Higher Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1087</td>
<td>3784</td>
</tr>
<tr>
<td>2007</td>
<td>1179</td>
<td>3944</td>
</tr>
<tr>
<td>2008</td>
<td>1266</td>
<td>4514</td>
</tr>
<tr>
<td>2009</td>
<td>1505</td>
<td>4983</td>
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<td>2010</td>
<td>1743</td>
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<tr>
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<td>1924</td>
<td>6309</td>
</tr>
<tr>
<td>2012</td>
<td>2390</td>
<td>7586</td>
</tr>
<tr>
<td>2013</td>
<td>2739</td>
<td>8257</td>
</tr>
<tr>
<td>2014</td>
<td>3085</td>
<td>9117</td>
</tr>
<tr>
<td>2015</td>
<td>3705</td>
<td>10485</td>
</tr>
<tr>
<td>2016</td>
<td>3339</td>
<td>9240</td>
</tr>
</tbody>
</table>

In order to keep sustainable development of China’s economy and synergetic development of world economy, Chinese leaders initiated “One Belt One Road” construction in 2013. Meanwhile, as previously mentioned, many teachers were enrolled in China’s education system in 2015.
Coincidentally, the Chinese papers on *education* and *higher education* increased to a certain extent in 2016 (seen in Fig. 1 and Fig.2).

**Rethinking Education and Higher Education**

Ego cogito ergo sum. To think and rethink the purpose and the function of *education* in one’s lifelong time, we should figure out that knowledge could enrich both our mind and life, and that better education background could almost promise us a better future, and then a better country, and then a better world, i.e. education and knowledge are as global common goods[5]. Therefore teachers “should be the first to be ready to rethink and change the criteria and basic situation of the teaching profession, in which the job of educating and stimulating students is steadily superseding that of simply giving instruction”[6].

Nowadays, we all live in a world of increasing complexity, uncertainty and contradiction, and all of us should learn throughout life[7]. We university teachers, of course, should be the first to learn by ourselves and from others. It is a central concern for sustainable human and social development[5]. And it is the reason why I went abroad to learn advanced knowledge and then update myself. And it is the reason why many of my colleagues have been sent abroad to renew their knowledge.

United Nations Educational, Scientific, and Cultural Organization (UNESCO) proposed the principle of education as a public good under strain in 2015. And long before in 1972, it suggested an over-all open education system that help learners to move within it, and that administration institutions such as legislative, professional, labour union gradually reduce and finally abolish hierarchical distinctions maintained for no valid reason among the various categories of teachers[6].

**Recommending China’s Higher Education Reform**

There is an idiom in China about the relationship of teachers and students, which is that teaching benefits teachers as well as students. Actually, our university teachers have been making almost whole educational activities on the learners. It is almost impossible to allow students great freedom, especial in the classrooms. Maybe, we could try to adapt to our students, and our students should not have to bow to established rules for teaching.

As far as I learned at UM, the undergraduate students obtained their final marks including attendance rate, assignments, quits, presentations and final exams. Besides, the classroom teaching was carried out in the small class scale. In China, in my university, at least, students’ final records consist of attendance rate and final exams, and the final exam usually covers 80 % of their final marks mostly due to our large class scale with too many students.

As to undergraduates’ practice, UM students were separate to several teams, each of which had 4 to 5 members supervised by a graduate student in the period of 10 weeks, while our students usually only have less than 4 weeks’ practice time.

During graduate learning, UM students in engineering had no need of attendance on classroom learning, but they should attend national or international conference once, which was subsidized by UM. In China, almost all of our graduate students should meet the requirements of credit hours before they are permitted to do their research work for their final diploma. And attending national or international conference is not required.

As to the level of education system, as previously mentioned, many higher education institutions have been allowed to support our education system and our economy. And it should be better not to be discussed here.

**Summary**

In China’s words, teacher’s aid is to teaching to fish. We university teachers should adapt ourselves to our students. They stand for the future of our country and this world. And all educational activity should be centred on our students in order to make our society and our world good and better.
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References