

ABSTRACT

Today, globalization is proceeding in all fields with remarkable advances in information and communication technology. In recent years, the globalization trend has expanded not only in the fields of finance, investment and real estate development in the business environment area, but also in the fields of education and culture in the knowledge industry area.

In order to evolve in accordance with a new era, it is more important than ever to educate real estate professionals via a well-designed curriculum that responds to the demands of a new age. Since 2000, university-level real estate education programs have been a topic of discussion in a global context. In Table 1, we categorized 28 countries which have university level real estate programs among 39 countries in Schulte et al. [1] according to the classification scheme of Yu [2]. The 28 countries were categorized as one of three models; UK model, US model and Eclectic model according to their current education content.

Table 1. Real estate education programs in 28 countries classified by the scheme of Yu (2001)

Eclectic Model		<ul style="list-style-type: none"> ●Canada 1958 ●Nigeria1957 ●Kenya 1956 	<ul style="list-style-type: none"> ●Singapore 1968 ●S. Africa1969 ●Malaysia1967 ●Sweden1965 	<ul style="list-style-type: none"> ●Austria1989 ●Korea1970 ●Greece 1980E ●Australia 1980E ●N.Z1980s 	<ul style="list-style-type: none"> ●Japan1992 ●Bulgaria1992 ●Lithuania1991 ●Finland1990 ●Spain1990 ●France1990mid ●Germany1990 ●Netherland1990 	<ul style="list-style-type: none"> ●Denmark2000 ●Russia2000 ●Belgium1997 ●Estonia1996 ●Latvia1995 ●Belarus1995
US Model	Wisconsin university 1892	<ul style="list-style-type: none"> ●Wharton school 1905 #AACSB (The Association to Advance Collegiate Schools of Business) 1916	#AREUEA (The American Real Estate and Urban Economics Association) 1964	#ARES (The American Real Estate Society) 1985	#IRES (The International Real Estate Society) 1992	
UK Model	#IS (Institution of Surveyors) 1868	<ul style="list-style-type: none"> ●The College of Estate Management (CEM)1918 Cambridge1919		#RICS (The Royal Institution of Chartered Surveyors) 1970		
t = years	1800S	1900S	1950S	1960S	1980S	1990S ~ 2000S

Note: # indicates associations.

As you can see from the Table 1, both historically and current activities, the real estate education has been being led by the UK and US. In this perspective, the study on real estate education should start with reviewing the historical developments and current streams of the real estate educations of the UK and US.

Due to reasons like these, the research objectives of this study are as follows.

- The first, clarifying the characteristics of real estate education in the UK and US through the review of the literature on historical developments.
- The second, finding out the mainstream of current global age and picking up the Body of Knowledge (BOK) of real estate education through analyzing the current subject titles of real estate departments accredited by the RICS and AACSB-International. These outputs will give some clues for designing the real estate education in Japan.
- Last, identifying Japan's specificities in real estate education through core term comparison based on proximity analysis among Japan, the UK and the US as one example of eclectic model countries.

To achieve these objectives, we proceeded with this study as follow.

- First, via the review of the literature on historical developments, we made a hypothesis about the characteristics of real estate education in the UK and US.
- Second, via the analysis of the terms used in the current subject titles of real estate departments accredited by the RICS and AACSB-International, we verified the hypothesis made in the before step.

For the analysis, the titles of 250 and 189 Mandatory Subjects for graduation were collected

from the websites of 14 real estate departments in the UK and 22 real estate departments in the US universities. And terms were extracted from the titles of mandatory subjects by using text mining techniques. After the Term Frequency (TF) and the Term Proportion (TP) of each term were calculated, the terms were grouped, counted and arranged by TF and TP order.

- Third, by using the core common terms chosen from the terms arranged by TF and TP in the before step, we found out the mainstream of current global age and picked up the Body of Knowledge (BOK) of real estate education. The definition of core common terms are as high frequent terms popularly appeared in the subject titles of the UK and US.
- Last, via core term comparison among the UK, the US and Japan by using proximity analysis, we identified Japan's specificities of real estate education.

Figure 1. shows the overview of research.

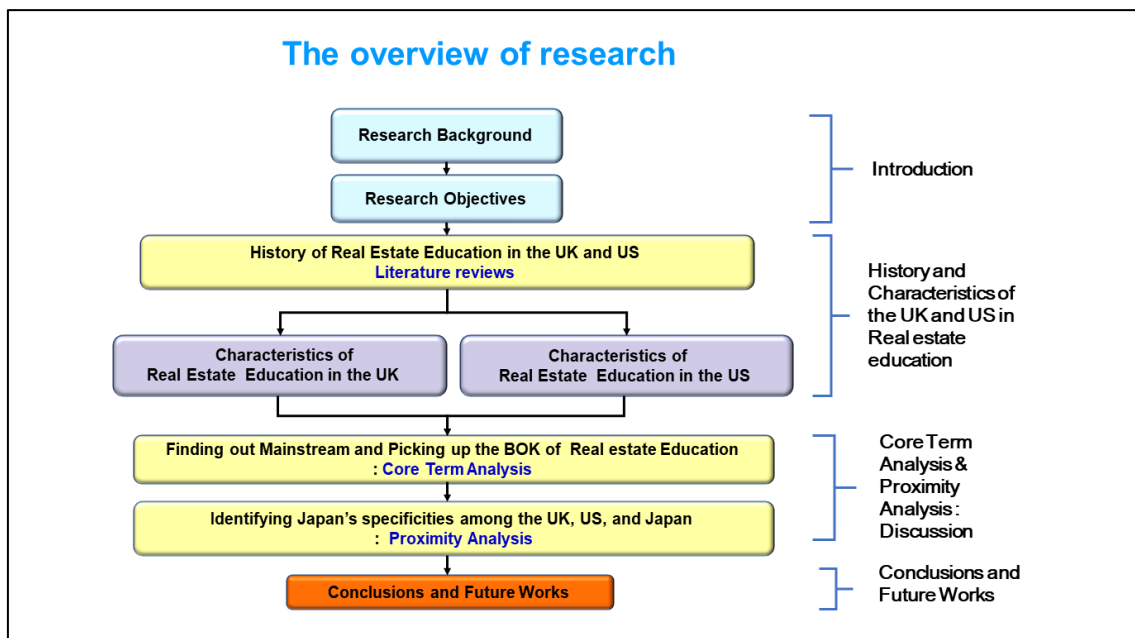


Figure 1. The overview of research

Figure 2. shows the main analysis process of this research.

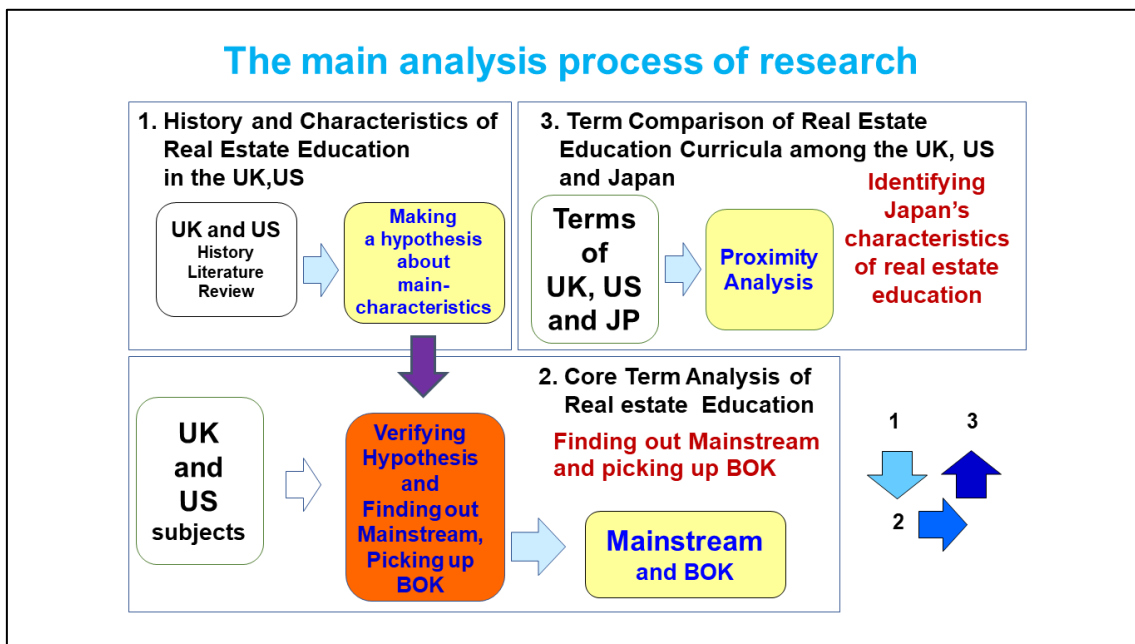


Figure 2. The main analysis process of research

Next, we explain concretely what we did for each chapter. It is as follows.

Chapter 1 is introduction part for describing Study Background, Research Objectives, Previous Research and Features and Contributions.

In Chapter 2 and 3, we reviewed up the historical developments of the real estate education for identifying the characteristics of the UK and US respectively. And on the basis of following up the historical development, we made the hypothesis about the characteristics of real estate education in the UK and US. We also arranged the chronology table of real estate education in the UK and US.

In Chapter 4, we explained core term analysis method that was used for extracting terms from the subject titles accredited by the RICS and AACSB-International. The extracted terms were used for finding out the mainstream of the current global age and picking up the BOK of real estate education.

Especially Chapter 4.3 showed the extracted results of core subjects and terms of the UK and US. The results clearly showed the superiority of our term-based analysis. But the limitation of our term-based analysis was also pointed. The characteristics of the UK and US real estate education were described from three view points; the view point of subject distribution in Chapter 4.4, the view point of linked 2nd terms in chapter 4.5 and the view point of core terms in Chapter 4.7 and 4.8. Especially in Chapter 4.7 and 4.8, we verified the hypothesis and modified the hypothesis for more appropriate description of the characteristics of the UK and US.

Figure 2. shows the total term distribution of the UK and US. By These terms were used for verifying the Hypothesis about the Characteristics of the UK and US real estate education made in chapter 2 and 3. Based on the results of hypothesis verification, the hypotheses were modified for more appropriate description of the characteristics of the UK and US.

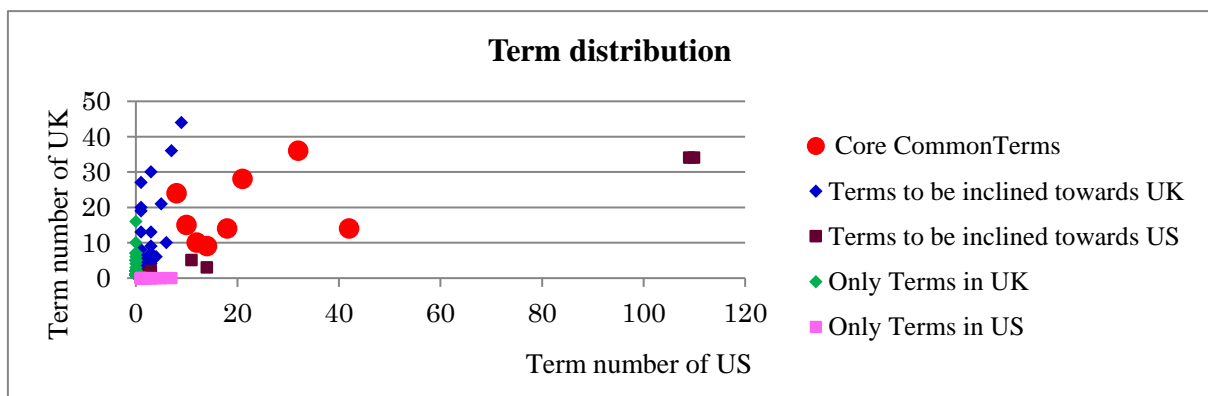


Figure 2. Total term distribution of the UK and US.

In Chapter 4.6, we tried to find out the mainstream of the current global age and pick up the BOK of Real Estate Education. The mainstreams found out in this study are like below. Now is “the age of Management” after having passed “the age of Development” and “Finance” and “Investment” are key terms of recent real estate education.

On the other hand, many real estate scholars have been discussing the BOK of real estate for long time. In Chapter 4.6, the term analysis method proposed in this study was also proved to be a very useful method for picking up the BOK of real estate.

In addition, there are some terms to pay special attention to. They are the term “History” in the UK and the term “Ethical” in the US. Although TPs’ values of the two terms are very low, they are important terms that reflect the differences of educational background and the business environment.

In Chapter 5, we tried to identify the specificities of Japan real estate education from the view point of core terms and term comparison among the UK, the US and Japan.

In Chapter 5.1, the results on real estate education of Meikai University showed that a wide range-education of basic knowledge related real estate are taught like the US. In addition, “Science” is one of the greatest features of Japanese real estate education in that it is a word that does not appear in the mandatory subjects in the UK and US. Also, the fact that “Law” is ranked at the top can be interpreted as one of the important educational goals to acquire real estate related qualifications.

In Chapter 5.2, we conducted a proximity analysis to identify whether Japanese education is more similar to the UK or the US education. The Proximity of Japan to the US is highest among three results. This can be interpreted as the context of the US approach has been affecting the Japanese real estate education curriculum as part of the globalization that the United States have been leading.

In Chapter 6, conclusion and future works are described.

The conclusions as study results are summarized as follows.

- First, we clarified the characteristics of real estate education in the UK and US via the hypothesis made by the review of the literature on historical developments and the hypothesis

verification by the terms extracted from the current subject titles of real estate departments accredited by the RICS in the case of UK and AACSB-International in the case of US.

The characteristics clarified in this study are summarized like below.

『In case of the real estate education of the UK, the main-characteristics can be said to have been practiced with center on the physical aspects having roots in surveyor's training for lords' estate management. But, recent years, "Finance and Investment approach of the US" seems to be penetrating the education of the UK.』

『In case of the real estate education of the US, the main-characteristics can be said to have been practiced with focus on finance and investment in the business environment based on the free transfer of land ownership dating to before independence. And, "basic knowledge education related to real estate at the liberal art level" is also placed a lot of value on.』

- Second, we found out the mainstream of current real estate education.

The mainstreams found out in this study are summarized like below.

『Now is "the age of Management" after having passed "the age of Development" and "Finance" and "Investment" are key terms of recent real estate education.』

- Third, we also picked out the Body of Knowledge (BOK) of current real estate education.

The BOK picked out in this study is summarized like below.

『The Body of Knowledge (BOK) of current real estate education is "Management", "Finance," "Law," "Development", "Investment", "Appraisal", "Principles", and "Business".』

- Fourth, we identified the specificities of the real estate education of Japan among the UK, the US and Japan. The specificity identified in this study is summarized like below.

『The real estate education of Japan is more oriented toward the f the US than the UK.』

- Finally, although there was no quantitative analysis in this research, the subjects related to the terms of "History" and "Ethical" should be considered more important, especially considering

the current era of global financial crises and complex financial services derived from real estate.

In addition, subjects focusing on entrepreneurship and negotiation, as well as operational abilities for use in construction projects, should be emphasized in the future.

However, this study has limitations.

As a first limitation of this study, the mainstream and the BOK of real estate were extracted with the core terms of the curriculum required in the real estate departments, which are limited to the departments accredited by the RICS and AACSB. As future work, it is expected that the subjects and core terms collected over a wide range of educational institutions will be able to extract a widely acceptable mainstream and BOK of real estate.

Another limitation of this study, we classified words under the assumption that same term, which is the basis of classification, always has the same meaning. However, this method has limitations that the meaning of each word may have different nuances or be interpreted in different meaning depending on the context of the connected terms or the country. In future work, we hope to improve these limitations by finding better methods.

References

1. Shulte, K. (2002). *Real Estate Education throughout the World: Past, Present and Future*; Kluwer Academic Publishers: Norwell, MA, USA.
2. Yu, S. (2001). New paradigms in real estate education. *Pac. Rim Prop. Res. J.*, 7, 79–88.