Comprehensive Case Study Approach in 
Major-specific Courses of Real Estate Development and Management

--Based on the Application in the Course of Real Estate Investment Analysis

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Abstract—Case study approach in teaching major-specific courses of real estate development and management is a whole set of teaching methods and skills that is based on actual cases of real estate projects, aimed to help learners of such courses to achieve particular learning objectives. In order to avoid such gaps that are commonly found in the practice of case study approach, that is, gaps between cases used and the objectives of the course, gaps between teaching the course in class and developing student's hands-on ability, a teaching strategy for specific courses to the major of real estate development and management is discussed in this paper to "use one comprehensive actual project throughout the course", closely combining the content of course with realities, and class instructions with hands-on experience of students, which, coupled with in-class discussions and case reviews of instructor, is designed to effectively increase students' ability to identity, analyze, and solve problems. In the meantime, this strategy has been put into application in the course of real estate investment analysis.

Keywords—Educational method, Real estate development and management, Comprehensive project case, Case study

I. PROBLEM PROPOSAL

The basic professional abilities of a good practitioner in real estate development and management are to plan, control, and manage economic activities associated with building and real estate (Wang Zhao, 2012)[1]. To be specific, they involve feasibility study and investment analysis, planning and marketing, real estate project financing, real estate appraisal, and assets operation and management, among others (Liu Hongping, etc., 2013)[2]. Cultivation of such abilities is mostly achieved by teaching major-specific courses and some basic course related to the major. Therefore all relevant majors are equipped with corresponding major-specific courses, and detailed teaching plans.

However, the development of teaching plans and selection of relevant courses serve only as a foundation on which cultivation of professional abilities can be realized. It has been proved that a fairly large portion of students who have studied such courses and even achieved good grades in them still fall short of grasping corresponding techniques and lack the abilities required for development and management of real estate projects(Jiang Shijie, etc, 2010)[3]. According to some employers, the hands-on ability of many college graduates has much room for improvement, and it takes them long time to be competent for many practical tasks. It may be in part due to lack of experience, but it is also the ultimate reflection of the problems with the content and teaching methods currently used in certain major-specific courses in higher education. Such problems have been great barriers for the improvement of teaching quality, and comprehensive quality of students (Niu Honglei, 2015)[4].

Then we came to the idea of comprehensive case study approach. It is mainly a response to current practice of case study approach in China, which to some extent is teaching cases for the sake of cases, resulting gaps between cases used and the objectives and content of the course, and gaps between teaching cases and developing student's hands-on ability. In our attempt to address these problems, we propose a teaching strategy for specific courses to the major of real estate development and management that would "use one comprehensive actual project throughout the course", closely combining content of course with realities, and class instructions with hands-on experience of students, which, coupled with in-class discussions and case reviews of instructor, is designed to effectively increase students' ability to identity, analyze, and solve problems.

II. REVIEW OF RELEVANT LITERATURE

Case study used as a teaching method has a long history in such disciplines as law, medical science, and business administration. For example the average number of cases an MBA student may encounter during his/her two years in Harvard Business School is 500 (Boehrer, 2012)[5]. Case study approach used for engineering management courses usually is one that integrates characteristics and advantages of various teaching techniques, including in-class discussion, group work, collaborative study, problem solving, and student project research (Carlson, 2004)[6].
General speaking, case study approach for engineering management courses 1) is designed to promote students’ acquisition of knowledge and skills in the field of engineering management; 2) is engineering problem-oriented; and 3) is in essence focused on explanation of practical issues (Killen, 2013)[7].

The cases it uses are more often than not selected from actual projects. By studying such cases students have the chance to make overall and comprehensive analysis of "actual projects" and acquire deeper understanding of the problems involved (Lynn, 2012)[8]. Because it requires students to look for viable solutions to practical problems, instead of mechanical and simple application of theories listed in textbooks. Students will come to the conclusion through case study that for some complex and important engineering problems it is a rule in reality that there is no such thing as "sole right solution", what can be had is an order of feasible solutions; and case study can also help students realize that their understanding of theories learned and ability to solve problems will be improved in the process of handling real engineering problems (Volpe, 2014)[9]. These research results are great help for us to apply case study approach in relevant courses; we also made further improvement and adaptation to the approach in pursuance of characteristics specific to courses of real estate development and management.

III. EMPIRICAL RESEARCH BASED ON QUESTIONNAIRE SURVEY OF EXPERTS

In order to sufficiently confirm what the industry is demanding of professionals of real estate development and management in terms of knowledge base, capability, and quality, we conducted a questionnaire survey of experts. The experts surveyed include leaders of the human resources, education, and training department of the Ministry of Housing and Urban-Rural Development, famous professors and scholars from relevant domestic institutions of higher learning, and general managers and senior engineers with renowned construction and real estate companies, as well as universities, companies, and peers and experts of relevant fields in Guangdong. Of the 35 copies of questionnaire distributed, 34 were returned and found usable. The survey shows that it is a general view of experts that technical professionals will be the main stream of talents required in the industry of real estate, and versatile professionals will be the mainstay category; and technical and managerial skills will be the focus of talent training. Experts also offer their recommendations on the courses that shall be taken be those who are training for the industry, indicating that students of relevant major shall also take such courses as real estate development, real estate appraisal, real estate investment analysis, engineering economics, building and construction, in addition to real estate related laws, marketing, urban planning information technology, real estate finance, assets operation and management, and other major-specific courses. It is demonstrated that versatile people equipped with professional knowledge and skills will have powerful competitive edge. The comprehensive case study approach is applicable in all of these courses, and surely will be greatly helpful in the cultivation of students’ capabilities.

A. Core skills regarded as essential by experts to future talents in the industry (multiple choice)

70% of the experts who have responded to the survey think managerial techniques are among the most needed abilities of a professional talent, and management knowledge will be a great career booster in the industry of real estate. What's more, 40% of the experts consider real estate development and appraisal, investment analysis, and engineering skills, among other as key professional knowledge and skills, which shall be key parts of talent training. Besides, professional knowledge and skills in such areas as real estate marketing, planning, economics, and finance are also indispensable to a practitioner in the real estate industry. From an overall point of view, real estate industry has set high bar for the comprehensive quality and professional skills of talents. For students to meet such requirement, they shall be put under education program that has reasonable aim, to acquire reasonable structure of knowledge, and to be equipped with core skills that are specific to the major. See table 1.

<table>
<thead>
<tr>
<th>Skills (multiple choice)</th>
<th>Average percentage</th>
</tr>
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<tbody>
<tr>
<td>Real estate development</td>
<td>40%</td>
</tr>
<tr>
<td>Real estate appraisal</td>
<td>35%</td>
</tr>
<tr>
<td>Real estate investment analysis</td>
<td>45%</td>
</tr>
<tr>
<td>Management</td>
<td>70%</td>
</tr>
<tr>
<td>Real estate marketing</td>
<td>15%</td>
</tr>
<tr>
<td>Engineering technology</td>
<td>40%</td>
</tr>
<tr>
<td>Real estate planning</td>
<td>15%</td>
</tr>
<tr>
<td>Economics and finance</td>
<td>20%</td>
</tr>
<tr>
<td>Others</td>
<td>10%</td>
</tr>
</tbody>
</table>

B. Core major-specific courses regarded as essential by experts to future talents in the industry (multiple choices)

During this questionnaire survey, as to the question that what are the core skills of a future talent in the industry of real estate, 70% experts think they shall study project management and other management courses; and 40% consider major-specific courses such as real estate appraisal, investment analysis, economics, and building and construction are also necessary. Moreover, 30% of the experts think that real estate laws, and marketing, among others shall also be put in the mix of courses of a future talent. Study of these courses plays a very important role in the creation of the knowledge structure of a real estate talent. See Fig. 1.
IV. HOW TO PREPARE FOR COMPREHENSIVE CASE STUDY

For specific courses to the major of real estate development and management, we propose to use one single comprehensive case throughout the teaching process, which makes case selection an issue to be dealt with carefully. Usually it requires the teacher to personally prepare project instruction from relevant materials; it is a time and energy consuming task, but the result will be a tailor-made instruction that meets instructional needs. It is a general rule that effectiveness, attractiveness, timeliness, decision-making possibility, generality, and reality are all important factors to be taken in to account in selecting cases.

Students are used to passive learning in the past. But case study requires that students transform themselves into active, driven, and self-instructed learners. It dictates that students must prepare their lessons before class, try to collect information and form their own opinions, and participate in class discussions bearing in mind the problems they are thinking. The teacher shall help student to acquire such learning techniques. To achieve better results, the teacher may make it assignment of students to prepare for the case, and to do it in writing.

The teacher's preparation for the case shall be a detailed analysis of it. He shall have a clear and thorough understanding of the focuses of the case and their relationship with each other, shall be full aware of those basic theories that are linked to the focuses of the case, and shall have his own conclusions. Although the teacher may not impose his opinions and conclusions on the students, at least he shall prepare and share them.

The principles usually used to guide ordinary in-class discussions are also applicable to those held in classes where case study is employed. For example, the teacher shall organize and kick off the discussion, keep students from wandering, challenge students to think deep, remind them of the ultimate goals to be achieved, and at the end summarize and review the discussion.

It should be remembered that the point of discussions is not to allow students to share their ideas with each other, nor to seek confirmation from the teacher. Its fundamental purpose is to encourage students to consciously participate in a common effort to acquire deeper understanding of the problems involved in the case. Therefore, the teacher shall listen carefully to all, and when it is necessary encourage students to perfect, supplement, and prove their opinions.

During his review, the teacher shall be focused to help students see that "the most important role of case study is to improve their abilities to identify, analyze, and solve problems". A good discussion review shall underline the consensus reached, and focal problems left unsolved, tell the students to pay attention to the application of relevant theories under similar circumstances, and show them the fact that in the real word, many things happen as the result of logical development, but at the same time are greatly influenced by probability. In a nutshell, the ideal condition is like this: Summary and review of the teacher ends discussion of the particular case, but not students' thinking on similar cases.

Since one case is used throughout the teaching process we recommend for major-specific courses of real estate development and management, it is possible for the teacher to give assignments to students at the end of each phrase of discussion to consolidate what they have learned. For example, students may be instructed to write a research report for what have been discussed, or the teacher may prepare a similar but more complex case and let students analyze it.

V. KEYS TO SUCCESS OF COMPREHENSIVE CASE STUDY APPROACH

When case study is used for courses of engineering management, it is important to pay attention to the followings:

- Control of number of students in the class. In order to achieve better efficiency and quality of discussion, students allowed to the class shall not exceed 20. Too many students will inevitably exclude some students from speaking up, which will affect teaching quality. Limit may be set to the time each student could have when it is necessary. What's more, special attention shall be paid to students that are shy or introverted, and more encouragement shall be given to them when they speak.

- Prepare good case instruction for relevant project. In order to make it easier for students to complete the case independently, the teacher should put in more time and energy to prepare good case instruction, defining specific requirements for each stage of the process.

- Have certain number of auxiliary teachers. In order to offer better instructions to students in their exercises related to the case, one auxiliary teacher shall be assigned to every 10-20 students taking courses specific to the major of real estate and management where case study approach is applied.

- Make proper allocation of time to stage of the teaching process. The case study process may be divided into several stages in accordance with the content of course and case used; and each stage may require different time depending on their content, form, and tasks. The teacher shall carefully calculate the time during his preparation of teaching schedule, to ensure completion of the course as required.
VI. THE APPLICATION OF COMPREHENSIVE CASE STUDY APPROACH IN THE COURSE OF REAL ESTATE INVESTMENT ANALYSIS

The application of comprehensive case study approach in our course of real estate investment analysis is mainly including the following steps: firstly, one single case of actual real estate project is always used throughout the course, course content is closely tied with the actual world, and the teaching method is based on the principle of combining lecture of teacher and practice of students. Secondly, in this process, in-class discussion, teacher’s review are used to deepen students' understanding and knowledge. Finally, the students are required to complete a project planning report at the end of the course. As it is showed above, this kind of case study is in fact an integration of case study, group study, in-class discussion, student project research, and other teaching methods.

The particulars are: first the lecture teacher will find a suitable case of project, integrate raw materials of the project into his preparation for the course, and then divide the content of course into several parts depending on the teaching time available. For example, our course of real estate investment analysis is divided into six parts: project market research and environment analysis, project marketing planning, project costs and expenses estimation, project revenue forecast and financing, project financial review, and project risk analysis. During the actual teaching process, each part follows the basic procedures of lecture - practice (individual and group) - in-class discussion-opinions - and debate-teacher's review-completion of stage report. It can be seen from the above that students undergo several times of rigor training on theory and practice in the whole teaching process. And to conclude the process, a week-long design section is set to consolidate what students have learned, in which students are required to plan for a more complex project. Such characteristics of case study as discussed above are now embodied here. Therefore it shows that comprehensive case study will help students achieve deeper understanding of theories of relevant major-specific courses than merely listening to lectures of teachers.

VII. CONCLUSION

Comprehensive case study imposes challenges not only to students, but to teachers also. Once a teacher signs on the task, the transition from traditional teaching methods to the comprehensive case study approach will not seem so difficult at all: heuristic, experiential, and seminar-style teaching methods combine together here, and on-line and off-line studies may also be completed here with the help of relevant teaching resources. The most salient feature of it is that after their taste of the delight they gain from learning and problem solving, and their acquisition of the self-directing learning skills, students will be determined to take on challenging tasks or roles, instead of shunning them; at the same time comprehensive case study not only helps students to realize that respecting others, being optimistic, and general awareness of the complexity of the world, but also benefits the teacher during the teaching process.

REFERENCES