



The Null Curriculum of Financial Education in Universities: Senior Corporate Interns' Perspectives

Liu Yi-Hsin¹, Juo-Ku Tseng² Mujin Chen³ Hsin Chiu⁴ Zhiyu Zheng^{5*}

¹ Assistant Professor School of Extension Education, Soochow University

² PhD Candidate, Department of Industrial Education, National Taiwan Normal University

³ Professor in College of Education, Institution of Teacher Education, National Cheng Chi University

⁴ PhD in Department of Education, College of Education, National Cheng Chi University

⁵ PhD candidate in Educational Management Graduate School, Rattana Bundit University

Abstract

One of the purposes of education is to provide talent for industry development, and in particular, the financial education programs are closely related to the industry. The World Economic Forum (WEF) points out in The Future of Jobs Report that future job candidates must have the following trending skills: analytical thinking and innovation, active learning and learning strategies, creativity, originality and initiative, technology design and programming, critical thinking and analysis, complex problem-solving, leadership and social influence, emotional intelligence, reasoning, problem-solving and ideation, systems analysis and evaluation. This study targets college seniors who are corporate interns as the research subjects, because they are already exposed to business realities and are aware of the status of the practical world and their own shortcomings in it. Their opinions will help facilitate schools to adjust curricula according to students' needs, and to fill in the null curricula for the graduating students, while at the same time implementing the changes into college curriculum planning. Since higher education is the cornerstone of a nation's competitiveness, the goal of college education needs to be more diversified and globalized; hence, curriculum design will be the key that leads to success. To date, research documents pertaining to null curriculum in higher education is relatively scarce, even though current school-industry cooperation has achieved the goal of high levels of employment after graduation. This study conducted focused interviews and open questionnaires at the selected university with a Department of Finance. Hopefully, this study can help reduce the gap between learning and practice in higher education. The research methodology of this study is generally the same as most research projects. To learn about the perspectives of technical college seniors concerning finance, this study adopts a standard mixed design model of combining the questionnaire research with qualitative analysis. In this study, the information collected via questionnaire survey concerning students' perspectives on the null curriculum in finance department of a technical university is presented as empirical data, which is then analyzed and verified. The findings may help illustrate the many possibilities and present some revelations for financial education curriculum design, and may further serve as a basis for course design for technical universities and other similar colleges.

Keywords

Finance Majors, Course Design, Null Curriculum

I. Introduction

According to the Ministry of Education, the 2024 academic year statistics show that there are 151 colleges and universities in Taiwan's higher education system, which includes 49 publicly funded universities and 102 privately funded universities. The number of private schools is far more than that of public schools. (Ministry of Education, 2024).

Before the implementation of Nine-Year Compulsory Education, technical and vocational education in Taiwan was dominated by trade schools; after the said implementation, technical and vocational education focuses on the refinement of schools and single specific subjects. In 1989, the International Business School merged with Kaohsiung Technical College, by the government order, which then started the trend of merging technical schools with business schools in the vocational education system. In just five or six years, almost all the vocational colleges have become technical and business colleges. In time, technical colleges were restructured into science and technology universities, with the existing focus of single subject and refinement of technical and vocational education becoming a college track scheme for vocational students. Many junior colleges have to be upgraded to technical colleges, or universities of science and technology, to remain competitive, but they then lose their original characteristics of technical and vocational schools in the process. The number of colleges and universities nationwide is shown in Table 1.

Table 1 Number of Colleges and Universities Nationwide

Number of Colleges and Universities Nationwide (Date of Statistics: October 15, 2024)										
Public					Private					
General University	Technical and Vocational School	Junior College	Open University	Sub-total	General University	Technical and Vocational School	Junior College	College of Religious Studies	Sub-total	Grand Total
32	13	2	2	49	34	49	10	9	102	151

Source: The Ministry of Education

Since 2018, the Ministry of Education is promoting a five-year deep cultivation program for higher education, where students' learning effectiveness is the base and teaching is the core, in order to help technical schools realize an upturn in their teaching quality. This program is further enhancing students' learning motivation and cultivating key basic abilities, cross-discipline abilities and employability, so that every student becomes a professional technical talent with problem-solving ability, practical hands-on ability, innovation ability and employability, thus increasing technical and vocational education value. It's been nearly one year since the start of the plan. Many schools have been promoting various innovative courses and teaching methods, with the help of injected resources of the deep cultivation program, to strengthen students' cross-discipline abilities and problem solving abilities. The aforementioned analysis shows that leaders of higher education are thinking about how to reduce the gap between learning and practice through teaching innovation.

At present, academic papers and seminars on higher education generally discuss the trends and effectiveness of industry-university cooperation and innovation incubation and often analyze course designs from the single perspective of professionals, without the voice of direct participants. This study attempts to explore the null curriculum in finance courses from the perspective of college students. This study selects the senior students, in particular, who have internship experience before graduation, because their suggestions would appear to be more important and valuable.

II. Research Objectives

To learn about the perspectives of technical college seniors concerning finance, this study adopts a standard mixed design model of combining the questionnaire research with qualitative analysis. The research objectives are as follows:

- (1) To understand the opinions of college senior financial interns concerning null curriculum, after being exposed to the business.
- (2) To explore courses that can still be arranged for college students of business management departments prior to entering the employment field.
- (3) What is the definition of finance from the perspective of college students?
- (4) With reference to courses on financial subjects in college students' schools, what are the subjects or contents that are important, but missing/lacking from their curricula? With the aforementioned information in hand, what are the revelations to curriculum reform of college financial courses?

III. Case Introduction

The case of this study is a privately funded university, which comprises three colleges and more than ten departments, in northern Taiwan. Established in the '60s with about six thousand students, it is a rarely found comprehensive-type of technical and vocational university in this region. It is one of the better known

universities. The said university has received subsidies from the Ministry of Education's award-assistance programs over the years, including the Teaching Excellence Program, the Higher Education Deep Cultivation Program, and the Model University of Science and Technology. It is committed to enhancing industry-university cooperation and innovative teaching. The sales practice course of the said university, under the guidance of school policy, promotes such teaching methods as flipped classroom and Problem- Based Learning (PBL), and incorporates professional managers from the financial service industry as teachers to establish a strategic partnership alliance.

The developmental characteristics of the department are "ethical practice, professional licenses, seamless workplace integration, and intensive learning". Ethical Practice: Emphasizes the specific practices of workplace ethics and cultivates students with good morals. Professional license: This department offers basic and advanced courses in finance. In addition, under the policy of matching course subjects with license exams, a simulation system with industry guidance for preparing for license exams is set up to facilitate students' license attainment, as required for employment. Seamless workplace integration: This department assists students in acquiring familiarity in practice, with at least one practical professional skill through applied seminars, career specialty courses, industry skills competition events and on-/off-campus internships.

Finance is a very popular department in a business college, or school of management. Its compulsory subjects may include: economics, accounting, statistics, investment, financialmanagement and others. Its goal is to cultivate finance talents with high sensitivity to numbers and logic. The financial field covers the financial industry, insurance industry, securities industry and banking industry. Courses in a Finance Department cover various financial processing concepts and techniques for individuals, organizations, nations, and inter-nations. They help with the understanding of financial interactions between organizations and the movement of economic markets, and these courses usually focus on the understanding of international markets and cultivating mathematical skills, which may include basic theories and applied abilities required by the relevant professional departments in a business college.

Finance study includes the following three domains:

1. Financial decision-making domain: analyze the problems and solutions involved in the process of financial investment and financing, estimate the daily financial strategies of the business, and apply the learned financial decision-making theories and concepts in various strategic scenarios.
2. Investment strategy domain: The contents of this course include the following parts: enterprise investment risk estimation and profit scheme evaluation.
3. Financial domain: learn professional skills in banking, insurance, securities and corporate finance; in addition, the curriculum also focuses on basic training in foreign language, mathematics, statistics, computer information, and economic theory skills.

Subsequently, students can continue with their studies in graduate school, or seek employment in banks, investment consulting companies, financial insurance securities companies, business companies, or serve in the positions of management trainees, financial specialists, and others

IV. Literature Review

1. Curriculum and Curriculum Design

The Master of curriculum theory, Beauchamp, defines curriculum theory as "a set of related statements that give meaning to the school curriculum pointing out the relationships between its elements and directing its development, its use, and its evaluation." Additionally, curriculum theory refers to "a set of concepts, definitions, propositions, and other conceptual frameworks that represent a systematic view of curriculum phenomena and have generalization and logical relevance."

2. Curriculum Design

Huang Guang-Xiong, Cai Qing-Tian (2015) and Huang Zheng-Jie (1991) all propose that curriculum design "refers to the methodological process of selecting, organizing and arranging curriculum elements, such as the process of deciding contents, textbook analysis, activity design and unit development, which include the "scientific technology" of formulating teaching goals, organizing teaching activities and performing evaluation. Curriculum became a subject of independent research when John Franklin Bobbitt in the U. S. published "The Curriculum" in 1918, in which he advocates that all problems in education should be solved by objective scientific methods (Huang Guang-Xiong, Cai Qing-Tian 1999).

The basic concept of curriculum is introduced in the following discussions.

Before 1970, the curriculum was affected by public administration and practicality (Pinar, Reynolds, Slattery, & Taubman, 1995). Tayler's rationale was an important curriculum standard to follow at that time (Tayler, 1949). The first known use of the term, curriculum, in English appeared in 1633 at the University of Glasgow, Scotland (Fang, De-Long, 2001). In the Oxford dictionary, the root of curriculum is *currere*, which means runway. It is derived as the process of learning, and the curriculum is regarded as the process of learning or training. Whether regarding curriculum as a single subject, or the whole body of subjects, it includes not only the static learning content, but also the dynamic learning process.

As for the methods and technologies of "Curriculum Design", they refer to the selection, organization and arrangement of curriculum elements, according to the theoretical basis of "Curriculum Design." These elements include objectives, contents, activities, methods, teaching materials, evaluation, time, space, resources, student organization, teaching strategies and teachers' expertise. In Curriculum Design, the emphasis is on the precise "Design" concepts, and people working on curriculum are expected to apply specific expertise in various theoretical bases, selection methods, organizational elements and organizational procedures to achieve the goals of creating curriculum with thoughtful design.

Education is closely related to the progress of human life, and curriculum is one of the main tools of educational activities, which makes it increasingly important (Jia, Fu-Ming, 1985). Nowadays, the question "what to teach" primarily means "what to use as the educational content", and that is a matter for curriculum (Huang Guang-Xiong, Cai Qing-Tian, 2002).

On the other hand, from the perspective that curriculum concerns all citizens of a nation, then, a school education is a social profession, and such a profession is for the cultivation of all citizens. Since citizens are the main population of a nation, and education is the process of transforming this population into ideal citizens, then determining what curriculum may be used to help create ideal citizens is an extremely important educational task. This shows that curriculum is an educational medium through which human ideals and human life may continue, hence it is of indispensable importance. Therefore, "curriculum design" has become an important process and practice used in achieving educational goals (Huang Guang-Xiong, Cai Qing-Tian, 2009). To understand the meaning of curriculum design, we should first understand the meaning of the word "design". Generally speaking, "design" refers to a carefully planned process of analysis and synthesis. "Design" starts with the communication of a problem and ends with implementation of the resolution to solve the problem. Therefore, the process of "design" is independent of the process of implementation, and the two cannot be confused (Nunan, 1983, 1). Curriculum design refers to the methodological process of the selection, organization and arrangement of curriculum elements (Huang Zheng-Jie, 1991). Curriculum design includes the "scientific technology" of formulating teaching goals, organizing teaching activities and performing evaluation. Therefore, the essence of curriculum design is practical work, not theoretical research. It aims to design a set of curriculum product systems to achieve educational goals, and not just explain the existing curriculum phenomenon. In this regard, curriculum design is more concerned with the specific and the practical aspects of finished products, which are the "final product" of the curriculum decision process. Therefore, curriculum design and "curriculum development" that emphasize "progress" are different in nature. Curriculum designers may be a group of researchers and development personnel hired, or sponsored by the state, or a group of editors hired by private textbook publishers, or teacher research groups seconded by a certain county and city government, or curriculum researchers in a teacher training center, or school-based professional groups of excellent teachers, or individual teachers in classrooms. Therefore, the hypotheses, objectives, rules, procedures, and participants of the curriculum design may vary depending on the nature of the educational institutions that adopt different research, design, development, experiment trials and evaluation feedback strategies. Therefore, curriculum design is not based on unchanging rules, but involves the process of artistic design, critical analysis, and experimental verification. The method and technology of "Curriculum Design" refers to the selection, organization and arrangement of curriculum elements, according to the theoretical basis of "Curriculum Design". These elements include objectives, contents, activities, methods, teaching materials, evaluation, time, space, resources, student organization, teaching strategies and teachers' expertise.

Therefore, with the requirements and interests of students in mind, social activities outside school, school culture, curriculum significance, teacher ability, coordination between administrators and school teachers, issues of curriculum theory verses teaching practice, requirement assessments and other issues are all related factors that must be considered when designing a curriculum. However, most people often overlook the necessity of related research development, promotion, implementation, evaluation, revision, and the teachers' on-the-job training required for implementing curriculum design, resulting in crude or incomplete curriculum design concepts. In fact, the huge funds and amount of work required for the above- mentioned curriculum planning activities are also indispensable and important considerations in the curriculum design process and expected results (Tyler, 1979, 249).

In short, the meaning of Curriculum Design is placing emphasis on the precise "Design" concepts, and that people working on the curriculum are expected to apply specific expertise in various theoretic bases, selection methods, organizational elements and organizational procedures in order to achieve the goals of curriculum with thoughtful design. Its advantage is that it requires curriculum planning and implementation personnel to pay attention to design work, ensure goal establishment, make good use of time, promote communication and coordination, and improve the accuracy of the curriculum, so that the continuity, procedure and integration aspects of the students' learning experience may have a greater influence on facilitating educational goal attainment.

3. Null Curriculum

Although there are many definitions of curriculum, roughly speaking, it is the content that students have the opportunity to learn in school, and may be categorized as: 1. Existing curriculum: Including obvious curriculum (clearly indicating the learning content, such as the course subjects, school motto and school rules, etc.), hidden curriculum (such as the contents learned by the students intentionally or unintentionally, such as class cultures, teacher's teaching styles), blank courses (learning contents to be determined by the teachers or students in addition to the decided curricula); The missing content can be obvious curriculum or hidden curriculum. Eisner (1979) once categorized school curriculum into three types, namely: explicit curriculum, implicit curriculum and null curriculum. Although most scholars define null curriculum as courses that should be taught in schools but are not taught, the importance of which is often no less than that of explicit curriculum. As many important course contents may be missing in the development and implementation process, causing a significant impact on students' learning opportunities, it is necessary to explore these contents. On the other hand, no curriculum proposal is perfect or flawless. By reflecting on the possible contents in null curriculum, the intended curriculum proposal may be developed towards perfection. If the null curriculum is regarded as a concept of curriculum analysis, its benefits in providing in-depth exploration and reflection, that include guiding us to explore the definition of curriculum, the purpose of the curriculum, and assisting us in reflecting on the thoughts and realities of the school curriculum from different perspectives, such as: ethnicity, class and gender (Quinn, 2010), then it is acceptable to most people. However, scholars such as Flinders, Noddings, and Thornton (1986) also remind us that to be meaningful in empirical studies, it is still necessary to select a reference subject from the real world, beyond a vague and limitless analysis. Hence, to further understand the conceptual meaning of null curriculum, it is discussed in the following from the aspect of its characteristics, influencing factors, as well as how to identify it, and how to process it:

1. The characteristics of null curriculum

In order to have a clearer understanding of the characteristics of null curriculum and to assist in the research and development of related curricula, this research offers a preliminary proposal of the four main characteristics of null curriculum by analyzing relevant literature.

(1) *Variability:*

Goodson and Marsh (1996) point out that school subjects are elusive and multi-faceted concepts, which are defined, redefined and negotiated at many levels and domains. Null curriculum is also regarded in this study to have such characteristics. It is defined and negotiated in a variety of courses and decision levels, including objectives, textbooks and classroom activities.

(2) *Particularity:*

Based on the particularity of national and regional cultures, or the differences in students' learning requirements, different null curricula may be identified for students of various nationalities or backgrounds; that is, the same course contents may mean something different to students from different countries or backgrounds, and not all are equally important. For example, the current social demographic structure in Taiwan is very diversified, multi-cultural education is an important course content. However, the course content requirements for the said multi-cultural education are not the same to students of various ethnic groups. Take the aboriginal students in tribal schools as an example: if the aboriginal language course is not implemented, it will inevitably become a null curriculum, but for new immigrants and students from the southern Fujian, this is not an issue.

(3) *Timeliness:*

As to what course contents may be identified as null curriculum, it may concern the temporal and spatial context of a specific period. For example, in a period when information technology has not yet flourished, if technology courses are not taught in schools, it may not be regarded as null curriculum. However, in today's technological boom, if schools do not schedule science and technology courses, they will inevitably be identified as null curriculum. Since the new knowledge created in an era usually cannot quickly become formal curriculum, the null curriculum will inevitably be continuously regenerated with social changes.

(4) **Politics:**

Here, it refers to the operation of power. In his research on school subjects, Hargreves (1989) points out that school subjects are not only a combination of intellectual thoughts, but also of social systems. This view can actually explain the inclusion and exclusion of a curriculum of certain knowledge. It may also be the result of power struggles between different knowledge communities, and the excluded knowledge may then be identified as a null curriculum.

In addition to the analysis of the above characteristics, the basis for determining whether a certain course content is a null curriculum should not be based solely on whether it is listed in the school's formal curricula, especially as a subject or topic. In fact, being "listed" does not necessarily mean "substantial", and "unlisted" does not necessarily mean "unsubstantial". From the perspective of curriculum history, when a certain course content is listed in official curricular documents, its symbolic meaning is usually greater than the substantial meaning. Therefore, whether or not a course content becomes a null curriculum, the act of implementing the said course in school is critical.

How to Identify a Null Curriculum

Since "null curriculum" is a multi-faceted and defined concept, to identify the null curriculum may begin with various aspects of a course. For example, "intellectual process" and "content or subject domain" aspects (Eisner, 1979): the former leans toward cognitive processes, such as memory, reasoning, and analysis; the latter is course content, such as language, mathematics, and geography. Of course, it can also be identified through course categories, such as: goals, subjects, contents and materials. As far as subjects are concerned, although the establishment of subjects is the basis for determining whether a certain curriculum content is missing, the same subject titles may not necessarily have the same content. Using the social studies of standard curriculum in 1968, 1975 and 1993 as an example: although they are the same social studies course, the contents in the first two curriculum standards focus on a narrative curriculum that emphasizes on information memorization and understanding. As for the content of social studies under the 1993 curriculum standards, it leans towards a conceptual curriculum and emphasizes the process of exploration. Therefore, reviewing the course contents of the social studies in the 1968 and 1975 editions, the course content concerning issue exploration is a null curriculum, at that time.

Furthermore, null curriculum can also be identified at the curriculum decision level, including curricula of the national standards, school authorized curriculum and classroom operational curriculum. Because, even if important information is included in the curricula of national standards, it may still generate null curriculum. Important course content may be still missing from the curricula when the textbooks are developed at the publishers' level, or when teachers implement course instructions. However, after reviewing the overall curriculum decision making level, we find that most people are more focused on the missing course contents at the national standard level, particularly at the curriculum standards and/or syllabus, and pay less attention to the possible occurrence of missing course contents in the classroom

4. Important principles for curriculum design and development

The current interpretation of "Curriculum" in "Glossary of Terms (Ci Hui)" is: "Curriculum refers to the course of schoolwork, including subjects and procedures for continuous studies." (Edited by Lu, Shi-Cheng, 1982, p.1188). Based on the theory of Aoki (2005), Pinar (2005) propose that the curriculum is not only a verb, but also a sound, a narration, and a movement played by a group of jazz musicians. To play the movement, this study inspects the meaning of design and the scope and features of curriculum design and development in the following.

Design refers to the components, steps and procedures for completing a specific task or job (Pratt, 1980, p.5). There is still no mainstream definition of curriculum design in the academic circles of curriculum study.

If borrowing other terms, such as curriculum planning and curriculum development, to explain curriculum design, then when a curriculum is regarded as a specific object or project, the meaning of curriculum planning is to produce the said object or project.

The theory and practice relevant to curriculum development and design encompasses five domains, namely: curriculum objectives, curriculum selection, curriculum organization, curriculum implementation and curriculum evaluation.

The characteristics of curriculum development and design are as follows:

1. The core of curriculum development and design is decision-making

The designer of the curriculum is the decision maker of that curriculum. In the course of curriculum development and design, the participant (designer) is required to make decisions at every step.

2. The value of curriculum development and design

The value of curriculum development and design is reflected in four aspects:

(1) The decision-making on the basis of value (2) The value of a rational and objective decision-making

(3) The value of the rational and objective decision-making itself (4) The compromise in value disputes and the decision to choose something. Therefore, any curriculum development and design, or its influence, is highly valuable. In terms of scope, it can be discussed from the broad sense and the narrow sense. The broad sense of curriculum design refers to the determination of goals and the evaluation of courses. The narrow sense of curriculum design is similar to the scope of the curriculum planning, and it can also be divided into two types.

The first comprises three major parts: designating goals, contents and organization, and the second is the selection of contents and organization (Huang Guang-Xiong, Yang Long-Li, 2004). The core of curriculum development and design is in its uniqueness, which means that curriculum designed by different people based on similar information will produce different results. Jackson (1992' p.3) points out that the definition of curriculum diversification is inevitably confusing, but the complexity and diversity of curriculum definition are what make the curriculum dynamic (Ornstein & Hunkins, 1998:11). Therefore, curriculum design and development should be planned on the basis of its scopes and characteristics in order to echo the dynamics and diversity of the curriculum.

5. Higher Education

The word university is derived from the Latin "universitas", which refers to general communities formed by groups of teachers and students. It is a product of European education in the Middle Ages. Today's universities in many countries have roots in medieval European universities. When referring to institutions of higher learning, "university" is the most prevalent term. Although the term does not cover all higher education institutions in a broad sense, if the discussion only involves the four year higher education institutions in a narrow sense, university indeed is the optimal term. Therefore, the higher education institutions mentioned in this study mainly refer to the four-year university educational systems, and junior colleges are not discussed in this study.

In "The Massification and Marketization of Higher Education", Dai, Xiao-Xia (2000) divides the evolution of universities into several stages. The rise of universities in the Middle Ages: four universities - Paris, Bologna, Salerno, and Oxford, in this period set the trend, where they were considerably organized with legal status, and had the right to own property and sign contracts. By the 16th century, the relationship between universities and churches was heightened. In the 17th and 18th centuries, modern universities began to rise, and many universities sought innovations and changes in their curricula. For example, Halle University in Germany carried out curriculum reforms and incorporated specific contents, such as French, mathematics, natural sciences, history, geography and politics. In the 18th century, the spread of the Industrial Revolution to many countries created a connection between universities and industrial development. Affected by the egalitarianism that emerged after the war and the theory of human capital in the 1960s, higher education entered a period of expansion. In summary, the development of higher education institutions can be traced back to medieval universities in the Middle Ages. Later, under the influence of social trends and various internal and external factors, higher education has become a flourishing industry. Higher education is being vigorously developed in many countries, and the current development of universities can be roughly divided into three models (Dai Xiaoxia, 2000). The first is the British model, which emphasizes liberal arts education that cultivates social elites; the second is the German model, which can be regarded as the origin of the research-based university; the third and last is the American model, which emphasizes diversified development, which has had a profound influence on Taiwan's higher education system, and it is also the system emulated by the current higher education system in Taiwan.

Currently, higher education in Taiwan is facing many ensuing problems, which in fact, present a turning point and an opportunity. Universities in Taiwan should aggressively seek breakthroughs, innovate school administrations, and build attractive characteristics. Therefore, government has the responsibility to review the development of higher education as a whole with an open mind, explore with a rational and vigorous attitude and make reasonable plans, so as to establish a unified and complete mechanism for fair competition and cooperation. In particular, colleges and universities must work harder to strengthen the quality and competitiveness of universities, reshape the value and culture of universities, develop high-quality education and improve education standards, so as to meet the challenges presented by higher education institutions from various countries. In fact, improving the competitiveness of higher education depends on the government's strong support and the university's own efforts to assume the arduous responsibilities. In terms of government departments, the educational authorities and other relevant departments should assist universities in establishing substantial cooperative relationships with foreign universities and academic institutions, merging with international mainstream academics, improving the overall domestic academic research standards and enhancing their international status and exposure. As for the efforts made by domestic universities, they should aggressively develop various specific and feasible implementation strategies to strengthen the competitiveness of Taiwan's higher education

V. Research Findings

This study conducts a questionnaire survey on Finance Department students between in their junior and senior years. As arranged by the school, twenty students interned in various institutions of the financial industry, including the banking, securities and insurance industries, during their summer break between the third year and the fourth year of study. After studying professional subjects, they can now actually participate in real world practice. From the 20 copies of questionnaire survey- "Research Questionnaire on The Null Curriculum of Financial Education in Universities", as completed by the corporate interns of the technical university in this study, it is found that the views of the senior students about their "finance profession" education are: "that it is in line with industry practices and makes good use of various financial tools, to help equip students with professional knowledge, so that graduates can easily enter the financial industry and quickly obtain the desired certifications." One of the students: "(allows students) to thoroughly understand financial terms, administrative procedures and relevant knowledge and then apply them in practice." To these students, practicality is very important. Another student responds, "(provides students) with an understanding and professional knowledge of banking, insurance, and securities so that graduates can apply what they learned in the workplace." Practicality is the focus of students' responses in the survey. In finance education, career training should be practical, and professional information on banking, insurance and securities should be taught, so that new graduates can apply what they learn. Providing students with professional finance knowledge that they can apply in practice, and an understanding of the domestic and international economy and financial industry is the first priority of this education.

In general, employment for graduates of the finance department is in the fields of banking, securities, futures, investment and investment advisory, insurance, and corporate finance departments. Their employment is closely related to the financial markets. The professional specialty of finance occupies a considerable proportion of the studies of senior students. Since vast majority of students are not course researchers, their understanding of the definition of the finance profession and null curriculum can only come from their own exposure to the finance industry. Hence, their perspectives on the finance profession reflect on the current status of the industry and what they regard as the null curriculum.

A student said, "Those who have a sensitivity to the entire financial market and can roughly predict the future trends of the market will be able to perceive problems before the economy deteriorates. They understand the financial market, the trends of stocks, basic analysis and have concepts of financial management".

Therefore, the cultivation of financial expertise is a very important key to the prospectiveness of seniors. Such expertise includes contents that have a direct or indirect relationship with the financial system, such as money, stocks, deposits, financial management and financial accounting, and their associated impacts and risks.

In addition, students can study the basic financial courses in the department and learn about the immediacy of finance during the education process, and thus can quickly grasp the changes in the real world, while having a broader understanding of finance than the average person. In addition to having professional knowledge about finance, more importantly, the new graduate will be able to cope with the workplace quickly when entering in the finance industry and apply what they learned immediately.

The purpose of this questionnaire is to discover the senior corporate interns' perspectives about the finance profession and what they regard as null curriculum. The overall questionnaire findings are:

1. Students generally agree with the course structure and course design provided by the finance department. Eighty percent of the students interviewed agreed with the financial and banking curriculum structure, but several noted a heavy emphasis on theory and a lack of applied courses. Half of the students also expressed a desire for basic financial and banking certification courses to allow students to more quickly connect with practical application.

2. Some students identify that interpersonal communications and negotiation skills are possible null curricula, which can enhance personal professional skills in the workplace.

Half of the students interviewed suggested adding interpersonal communication and negotiation courses because they found that during internships, they needed to interact with many departments and could not complete their assigned tasks without communication skills. In addition, several students who served as interns in banks found that negotiation skills could help promote and close financial products.

3. A small number of students suggest that the school could offer personal image courses, such as attire and etiquette courses.

The survey of students included course proposals, such as a personal image and etiquette course, which was a new discovery in the study. Most students focus on their professional fields. After getting to know the students, we discovered that during internships, they witnessed the financial management and insurance work at work, where supervisors taught them the importance of image, such as how to handle financial products. This demonstrates that internships can stimulate students' thinking and aspirations for themselves.

4. A small number of students suggest that school can offer courses on attire and courses on the skills of negotiation and the art of speaking.

The students interviewed said that the clothing of different organizations conveys different brand images, so they hope to learn about clothing taste and design during their studies. In addition, the way of speaking is also very impressive to students. In particular, students mentioned that during their internships, they saw different customer service methods and speaking skills, and they felt that they needed to learn the connotation and key points of this part during their studies

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Appendix 1 Research Questionnaire on The Null Curriculum of Financial Education in Universities

Dear Seniors,

Null curriculum refers to courses that are "important" but are "missing" from the curriculum. This questionnaire concerns what the "important" but "missing" courses are in a multitude of financial subjects. University students, as participants in professional financial courses, are obliged to participate in course development. The purpose of this questionnaire survey is to learn your definition of finance profession, as you have three years of course experience, and learn what you regard as "important", but "missing", course contents, when comparing the course subjects listed in the appendix. Your valuable opinions will definitely help course innovation of the financial profession.

This questionnaire is an independent academic research and is not affiliated with schools or government. All responses are for academic research only and will be kept confidential. Please feel confident in answering. Thank you for your assistance.

©Questions

(1) What is your definition of "Finance Profession"?

(2) Course taken: Please select from the "The Courses Offered by a Certain University of Science and Technology" (Appendix).

※Explanation: For your convenience, this subject list is compiled according to the "domain" category, and in the

sequence of "the number of strokes for the first character of the subject".

※ This subject list is compiled based on the financial subjects of the last two semesters. If the financial subjects you "have studied" are not on the list, please check and write in the "other" field under the domains where they belong.

(3) Continuation of (1) What is your definition of "finance profession"? What are the courses or learning contents you regard as important, but not offered? (Please exclude courses that are already on the financial subject list.)

©General information

(1) Gender:

☐ Male☐ Female(1) Year and Major: Current major ____ Senior (☐ Delay Graduation)

©Please tick in front of the subject code

What is your definition of finance profession? What are the courses or learning contents you regard as important, but not offered? (Please exclude courses that are already on the financial subject list.)

Personal financial planning, derivative commodity trading, financial market introduction, industry and competition analysis, economic analysis and forecasting, behavioral finance, financial e-commerce, interest rate and exchange rate forecasting.

In addition, accounting courses in the finance department are insufficient, and "Tax Law" is frequently used in accounting practice. Hope that the courses can be offered for the whole year, so that the instructor may have more time to give instruction with systematic continuity and avoid skipping items. Otherwise, apart from not learning very much, it will be more confusing due to lack of clarity.

Various financial investing experiments to make students more sensitive to numbers, and to bring additional various financial knowledge into real life, or to be more concerned about current international financial affairs and the status of various nations.

Today's financial industry: with the increase in sales performance in securities and banking, the school can add financial product sales courses and practice. On hands-on or practice courses.

There are too few practical courses, and the range of selection is narrow. Often when you choose one course, you have to give up the other, and the courses offered in the same period are from two different domains. Furthermore, students have very little information concerning the courses before they have to make a choice. So, they have to give up on courses of another domain.

School can offer more courses that are helpful for certification exams. For example, courses related to Trust, which is a very practical topic for insurance, banking, and securities.

Offer more license tutoring courses, and fewer on insurance business. Offer

Courses:

- Advanced Accounting
- Company Act
- Cost accounting
- Public Finance
- Courses on stocks
- International Taxation
- International Economics
- History of Economic Thought Public

Economics

- Constitution and National Policy
- Learning accounting using computers Marketing

using social networks

- The Art of Speaking