Educational Management in a Changing World at the Faculty of Architecture and Planning Thammasat University

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Abstract

Education reforms in a changing world arose first against neo-classical education or 'humanistic education.' Its effects forced instructors to teach for testing, changed curriculum standards, and students became academic entrepreneurs. The Faculty of Architecture and Planning at Thammasat University adjusted to these changes. This quantitative research approach focuses on educational management guidelines. The open-ended questionnaire and structural interview are its main instruments. Percentage, mean, mode, standard deviation, F-test, and Pearson Correlation were used for analyzing the data. The research finding reveals that the mainstream and the alternative aspects in the educational management guidelines concern with external factors such as the entrepreneurs' satisfaction, standardization, and the students' voices. The entrepreneurs' satisfaction relates to general qualifications, identifications, and abilities of the graduates selecting between government university and private university at a rate of 3:1. Standardization means new curriculum structure; 25% of general basic courses, 10-15% of elective courses, and 60-65% of architectural program courses. The students' voices indicate a desire to reduce central control and standardized testing.

Keywords : changing world, educational management, entrepreneurs' satisfaction, standardization, students' voices

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Introduction/Rationale

Impacts from a changing world

The term "globalization" has come into popular favor in the last seven years to refer to the post-Cold War international economic paradigm. It has had a profound effect on the economics of nations worldwide. It is a complex and abstract phenomenon which expands and accelerates the movement and exchange of ideas and commodities over vast distances. Thailand, one of the countries in South East Asia, is seemingly ubiquitous from globalization's effects.

The effects of globalization encompass a range of Thai social, political, economic, cultural, and especially education changes. Thai National Strategies have had to be assimilated, adapted, and developed proportionally under agenda based. The Thai Government's policies in education and educational research have become the mechanism for Thailand's development in this changing world.

Globalization of education, heightened quality requirements, changing and increasing customer expectation towards quality work-force and stakeholder pressures have led to the need to implement quality assurance in education. Quality Assurance (QA) is a standard aimed at providing public confidence in the ability of higher education institutions (HEIs) to regulate a diverse, flexible and growing system of higher education. With the implementation of quality assurance, architecture programs of higher education institutions, which are ISO certified, must now decide whether to maintain the ISO certification or to concentrate on quality assurance only.

Quality assurance in education has applied the theoretical and conceptual foundation of Total Quality Management (TQM) and performance and planning management as the panacea for education quality. The degree of success of the quality strive is debatable as quality assurance and strategic implementation is treated as two contending rather than as two collaborative partners. As educational institutions for the development of human resources and as agents of social change, universities need to pay critical attention to human resources particularly the graduates.

Many education experts state that the graduate is one of the vital elements of the education system. Hence, the graduate is required to have the competencies that can achieve high quality working standards, that would in turn enhance and improve the overall university-wide quality standing and thus its image. Because the need for a holistic approach in integrated quality assurance with strategic planning and the need to train graduates of architecture programs for an era of a rapidly evolving body of knowledge, several architecture schools now adopt the problem-based learning (PBL) curriculum. It is possible for architecture schools to start on a sound PBL philosophy, but soon deviate from it. Thus, a sustained and successful PBL curriculum is in flux for many graduates. Graduates of architecture schools must possess two synergistic characteristics: an internationalization of the PBL philosophy (to ensure quality),

and enthusiasm (to ensure growth). If the graduates are conversant with the philosophy, but lack enthusiasm, the curriculum will not grow. On the other hand, if enthusiastic graduates lack philosophy; it is a recipe for curriculum failure.

Essential to higher education of quality standard, is the necessity to learn more about educational management guidelines especially for the architecture programs of the Faculty of Architecture and Planning Thammasat University. We had three main research questions; 1) for educational management what should be managed? 2) what should be changed? 3) how does the faculty adjust during this transition? The main objective of this quantitative research approach has been to explore the inter-relationship and inter-dependency between the Faculty of Architecture and Planning ,Thammasat University strategic plan in education and entrepreneurs' satisfaction or graduates' expectation in the job market. Hopefully, the research findings will lead to the standardization of the curriculum development guidelines in line with the needs of the job market.

Literature Review

Standard and Quality

In general, the word 'standard' means basis for comparison; a reference point against which other things can be evaluated, criterion: the ideal in terms of which something can be judged, the level of performance on the criterion being assessed that is considered satisfactory in terms of the purpose of the evaluation. Besides these, there are three major categories of standards, related to various purposes. First, the developmental standards specify improvement levels to be attained and may be used for professional development and self-assessment. Second is the minimum standards designate the level below which performance is not acceptable and are used for such purposes as licensure and job assignments. Third, desired performance standards reflect what is regarded as accomplished or effective teaching and typically are used for such purposes as promotions, awards, and certification, etc.

Quality Definition

From hyperdictionary.com (2007), there are six entries of "quality" definition;

[n] a degree or grade of excellence or worth; "the quality of students has risen"; "an executive of low caliber"

[n] the distinctive property of a complex sound (a voice or noise or musical sound); "the timbre of her soprano was rich and lovely"; "the muffled tones of the broken bell summoned them to meet"

[n] a characteristic property that defines the apparent individual nature of something; "each town has a quality all its own"; "the radical character of our demands"

[n] high social status; "a man of quality"

[adj] of high social status; "people of quality"; "a quality family"

[adj] of superior grade; "choice wines"; "prime beef"; "prize carnations"; "quality paper";

"select peaches"

Furthermore, it is defined as an essential and distinguishing attribute of something or someone, a degree or grade of excellence or worth, A subjective term for which each person has his or her own definition.

In technical usage, quality can have two meanings: the characteristics of a product or service that bear on its ability to satisfy stated or implied needs and a product or service free of deficiencies, degree of excellence. The quality of assessment evidence is characterized primarily by the authenticity of the tasks, the reliability of the sample of evidence, and the credibility of the evidence for the intended purposes, etc.

Architecture Program

It is known that most architecture programs in this world offer vision and demand commitment, with a variety of options and terms of study. The purpose of architecture curriculae is to educate expressive, skillful designers, prepared to act as thoughtful, effective members of society and the professional of architecture. Besides these, it seem to be interconnected and integrated sequences of design studio and parallel coursework, moving between values of technology and craft, emphasizing both theory and practice, and in consideration of site, material, assembly, and purpose. (www.arch.wustl.edu)

Architecture education's heart is the design studio. However it is necessary to study more about; the sequence of courses in history and theory that place architecture in the context of culture, politics, technology, and philosophy and the sequence of courses in technology that build knowledge and skills around the engaging technological and practical issues within architecture.

Truly, this suggests that architecture programs of all educational institutes must contain three main parts of curriculum; the design studio, history and theory sequences, and technology sequence.

Architecture programs in Thailand's government and private universities seem to be like other countries with variations in course details and duration.

Typically, the goal and vision statements of the Faculty of Architecture/ the architecture program/ the architecture school in Thailand consist of;

To develop human resources that serve the best interests for the country, society, university and school of architecture.

To achieve academic excellence, in accordance with university's vision Unity is the foundation for achieving excellence, quality and efficiency are the goal and means of achievement, and continuous change is normal for a dynamic organizations.

To prepare for a globalizing society with initiatives and creative thinking in new paradigms. It is essential that the new problems should never be solved within an old conceptual framework, while maintaining a balance in art and culture transition in the development of science and technology.

To produce high quality architects of international standard to serve the profession.

To produce competent architects who are specialized in particular areas of architectural profession.

To produce competent and ethical graduates who could become leaders in various dimensions of the profession, promoting and enhancing substantially the development of the profession, and who will responsibly contribute to the development of the country.

To produce competent architects, with academic and research capabilities, who are keen to continually develop themselves.

Students who study architecture must multiple disciplines: art and humanities, economics, science and technology, etc. However, it is not necessary to definte precise content of each in architecture curriculum because each school has its own theoretical approach.

In Thailand, there are many higher education institutes that teach this as a 5-year architecture program, although Thammasat University teaches the 4+2 program. Though they have different duration, they have similar credit requirements.

In addition to program details for educational management, the more human factor is important, too. Human factor means all persons who interact with students such as instructors, peers, administrators and entrepreneurs. The learning process of students occurs everywhere with textbooks, magazines, internet, etc. but under control of educational system. They must learn with guidance from the human factors. If the interaction is positive, students can excel in architectural subjects, and serve as good indicators for quality assurance.

Quality and Education Reform

The Thai education system comprises of four levels; pre-school, primary, secondary, and higher education. Thailand had launched educational reform in 1966 to enhance the quality of education. The objectives of education reform between 1966-2007 have been to realize the potential of Thai people to develop themselves for a better quality of life, to develop the nation for peaceful co-existence in the world community and to create learning individuals, organizations and society.

The education reform has been conducted in four areas; school/ educational institute reform; teacher, administrator and staff reform; curriculum reform and administrative reform.

Universities are increasingly asked to develop and apply knowledge to complex social and economic issues. This requires a new level of interconnectivity and engagement people outside the academy, who are professionals demanding respect as knowledge workers and knowledge generators in their own right. In turn, this requires collaboration and mutual respect in place of the unilateral respect instructors expect to be accorded as knowledge experts ('professors'). The according of respect to academics as knowledge experts has declined as knowledge has been democratized and societies have rebelled against 'closed shop' arrangements seen to

favor knowledge elites. These different ways of working require not just different mental models and behaviors, but also new processes, different types of infrastructure of the educational institutes.

The understanding of how to manage knowledge-based organizations and knowledge workers is nascent. There are no clear road maps to follow. There

are differences between the understandings of different groups within the society - government, parents,

students, and employers. Each has a different view of what a university experience is or should be.

The announcement by Premier Bracks contained in UNESCO's Delors Report noted four pillars of education: learning to know; learning to do; learning to live together; and learning to be.

Instructors must use more information and innovations and try to develop new methods of student-focused teaching. Currently, there are two methods of teaching assessment: pretest-posttest and E1/E2 standard. Because of the complexity of higher education, teaching evaluation has stressed only traits and teaching behaviors of instructor such as responsibility, teaching techniques, ethics, etc.

These methods make it difficult to study graduates' quality in architecture programs. Students quality in architecture program seem to be this framework below. (Fig.1)
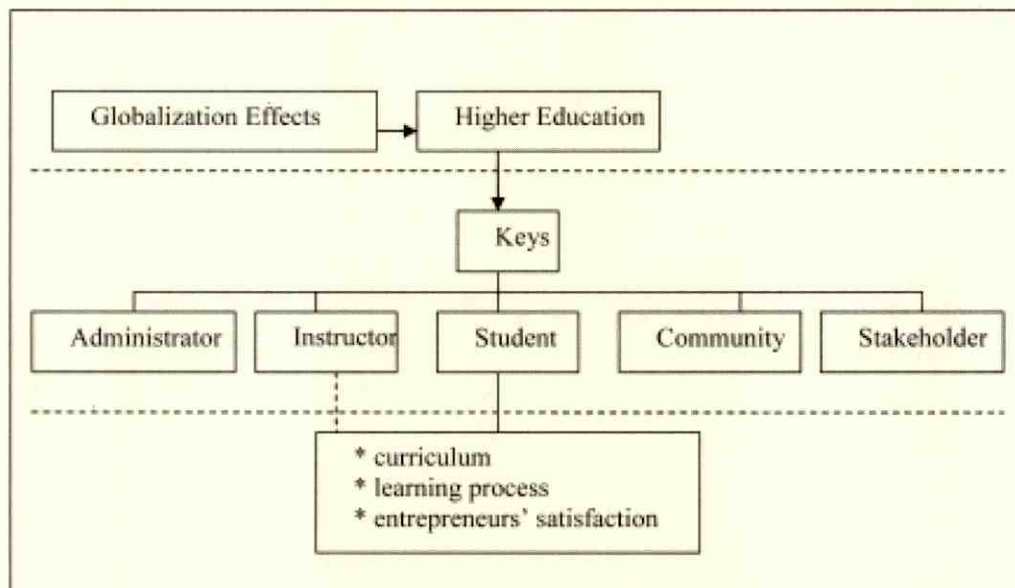

Figure 1 Conceptual Framework for Research

However, in Thailand, the research about entrepreneurs' satisfaction toward the graduates is scantly. Most researches emphasize on graduates' satisfaction in working though this research must lean on many theories or concepts such as Human Capital Theory, the Herzberg's Two-factor Theory, the Achievement Theory, the Hoppock's theory about measuring job satisfaction, the Need Fulfillment Theory, the Reference Group Theory, the Hierarchy of Need Theory, the ERG Theory, the Acquired Need Theory, the Expectancy Theory and etc. For this research, all mentioned theories are used for finding factors that make entrepreneurs satisfy with the graduates and the trend of graduates' properties.

Research Methodology

Based on the three main research questions and the main objective of this quantitative in research approach has been planed to explore the inter-relationship and inter-dependency between the Faculty of Architecture and Planning, Thammasat University's strategic plan in education and entrepreneurs' satisfaction of graduates. The research findings will lead to the graduates' criteria, the curriculum development guideline and trend of job market need.

Open - ended questionnaires and structural interviews are main research instruments. The open - ended questionnaire has been developed and created under the measurement theory. It has three parts with five-level scaling. It was been tested for internal consistency with alpha coefficient, 0.96. The structural interview by phone concerns information about the policy and trend of human resources for each entrepreneur or organization. Moreover, this research has also used data from secondary sources.

The research population was eighty seven entrepreneurs in Thailand: government offices, companies or limited partnership, education institutes, and others such as state enterprises, proprietor, and freelance factories. All of these entrepreneurs run an architectural business and have architectural graduates from the Faculty of Architecture and Planning Thammasat University. Only forty three samples are willing to share data for this research.

Quantitative data from the open - ended questionnaire have been analyzed by percentage, mean, mode, standard deviation, F-test (ANOVA), and Pearson Correlation. Qualitative data from the structural interview have been analyzed by content analysis technique.

The quantitative data focus on entrepreneurs' satisfaction toward the graduates in six areas: academic knowledge; professionalism; research skill; identity; qualification and abilities. The qualitative data focus on types of organizations or enterprises, working position, organization services or enterprises' welfare, number of officers or members of enterprises and organization's decision about the graduates.

All in all, the most important proposition from this research should reflect the edu-

cational management guidelines that can lead the Faculty of Architecture and Planning at Thammasat University to be a smarter leader in architecture.

Research Findings

The correlation between the faculty's strategies and the entrepreneurs' satisfaction indicates that there are three mainstream and alternative aspects in educational management guidelines for the Faculty of Architecture Thammasat University; by the entrepreneurs' satisfaction, by the standardization and by the students' voices.

The entrepreneurs have between one and five architectural graduates from the Faculty of Architecture and Planning Thammasat University in their employ. Data from all graduates of the Faculty of Architecture and Planning Thammasat University have pointed out that seventy five percents work with private companies, fifteen percent work with government offices, seven point five percent work with the education institutes, and two point five percent work with other enterprises such as state enterprises, proprietor, and freelance factories respectively. In addition, these are in accord with graduate producing goal of the faculty; architecture program, interior program, and planning program in rate of 85: 12.50: 2.50 respectively.

Size of organizations: sixty two point five percent of graduates of the faculty worked in small organizations (<50 people), twenty five percent worked in large organizations (<101 people), and twelve point five percent worked in medium organizations (<51-100 people) respectively.

Welfare: twenty one percent of graduates have major expenses such as traveling expenses, food expenses paid per day, and bonus. Subvention, bail, and emergency medical fee are minor expenses which are added in for some part of entrepreneurs. However, all entrepreneurs who employed graduates from the faculty have given preference to the following qualities of the graduates: responsibility (mean = 4.65), patience (mean = 4.60), loyalty to organization (mean = 4.42), being able to learn more about tasks (mean = 4.40), respect for leaders (mean = 4.37), good relations (mean = 4.32), and job knowledge (mean = 4.25) respectively. Entrepreneurs interested in other qualities were insignificant significant at the 0.05 level. This means that the graduates' criteria should reflect from the general factor and the specific factor. Furthermore, these results had accorded with finding of Ratch (2006) who studied the factors in working of architects and the Hertzberg's Two-factor Theory.

The government offices give preference to the graduates' general qualification most such as patience (mean = 4.83), being on time (mean = 4.66), and taking responsibilities (mean = 4.33) respectively. The government offices give preference to the graduates' ability such as knowledge about information technology and tasks (mean = 4.33), professional knowledge and the ability to learn more about work (mean = 4.16). Companies or limited partner-

ship that give preference to the graduates' general qualification especially about task responsibilities (mean = 4.60), being patience (mean = 4.53), and loyalty to organization (mean = 4.40) respectively. Regarding knowledge, the companies or limited partnership pay attention to the learning more about work/ tasks (mean = 4.36), knowledge about works/ tasks (mean = 4.26), and ability in making decision (mean = 4.10). Education institutes give preference to the graduates' quality for example to be on time, to take responsibility, to participate and cooperate with others (mean = 5.00) in contrast with the companies, which pay attention to be able to learn more about works/ tasks (mean = 5.00) and the ability in making decision (mean = 4.66).

To consider sizes of organization, small organizations (<50 people), medium organizations (<51-100 people), and large organizations give no preference to the graduates' qualities, as the date showed no significance at the 0.05 level. In addition, all sizes stressed graduates' knowledge and abilities. Finally, selection of graduates focuses on government universities and private universities at a rate of 3:1.

All types of entrepreneurs pay attention to the graduates' characteristic and properties first especially about attention to detail, patience, loyalty, cooperation, and organizational ability. In addition, entrepreneurs look for graduates who demonstrate positive leadership skills. More details about the entrepreneurs' satisfaction are in the table 1-2.

Table 1 Mean and Standard Deviation of Entrepreneurs' Opinion toward the Graduates' Quality for Applying the Job

Entrepreneurs' Opinion toward the Graduates' Quality for Applying the Job	Mean	Standard Deviation	Interpretation
specific factors	3.9659	.31471	high
1. academic knowledge	3.8250	.59431	high
2. professional knowledge	4.1750	.67511	high
3. research ability/ skill	3.3000	.91147	average
4. to listen to others opinions	4.1250	.60712	high
5. knowledge about work/ tasks (job-relevant knowledge)	4.2500	.54302	highest
6. Thai language ability/ skill	3.8500	.66216	high
7. foreign language ability/ skill	3.4000	.90014	average
8. problem solving ability/ skill	4.1250	.72280	high
9. information technology skill	4.1000	.67178	high
10. ability to learn more about work/ tasks	4.4000	.70892	highest
11. computer ability/ skill	4.0750	.69384	high

Table 1 Mean and Standard Deviation of Entrepreneurs' Opinion toward the
Graduates' Quality for Applying the Job (continue)

Entrepreneurs' Opinion toward the Graduates' Quality for Applying the Job	Mean	Standard Deviation	Interpretation
general factors	4.3675	.39444	highest
1. academic ambition	4.3000	.68687	highest
2. be on time	4.3000	.68687	highest
3. good relation (interpersonal relation)	4.3250	.65584	highest
4. to respect the others	4.3750	.62788	highest
5. to patience	4.6000	.54538	highest
6. loyalty to organization	4.4250	.50064	highest
7. working disciplines	4.2500	.58835	highest
8. emotional control	4.2500	.66986	highest
9. working responsibility	4.6500	.48305	highest
10. to participate and go along the others for working	4.2000	.64847	high
Entrepreneurs' Opinion (total) toward the Graduates' Quality for Applying the Job	4.1571	.30121	high

From the table 1, all types of entrepreneurs employ graduates who have been good at general factors most. Job responsibility, to be patient, loyal, to respect others and maintain good working relationships are the most important factor that the entrepreneurs pay attention to. On the other hand, the ability to learn more about tasks, knowledge about tasks and professional knowledge are the issues of the specific factors that the entrepreneurs are interested in but do not pay more attention to.

Content analysis about this phenomena shows that the reasons entrepreneurs pay more attention to the general factor than the specific factors concerns the natures of architectural work. Confirming by research findings of Ratch Rueng-ut-wiboon (2006) in "Towards Quality Improvement of Architects in Responsive to Organization Need" and Pornphan Verapreyagura and others (2007) in "Entrepreneur's Satisfaction toward the Graduates of the Faculty of Architecture and Planning, Thammasat University, they pointed out that architects, under the job market's need, have to have all of these factors: relation factors (consisting of loyalty, self-adaptation and language ability), individual factors (consisting of personality, habit and merit and ethics), self - development factors (consisting of understanding the culture and system of the

organization), knowledge factors (consisting of research ability, marketing ability and presentation techniques) and professional factors. Besides, these findings harmonized with the Two Factors Theory of Herzberg, too.

Table 2 Entrepreneurs' Satisfaction toward the graduates of the Faculty of Architecture and Planning Thammasat University diving by Entrepreneurs' Types

entrepreneurs' types	entrepreneurs' satisfaction toward the graduates of the Faculty of Architecture and Planning Thammasat University			
	qualities	qualifications	properties	abilities
government offices	- patience - be on time - take responsibility	respect the leaders	good vision	information technology
companies or limited partnership	- take responsibility - patience - be able to learn more about work/ tasks	good relation	working responsibility	in working with the others
education institutes	- be able to learn more about work/ tasks -be on time - take responsibility - to participate and cooperate with others	- working disciplines - patience - respect the leaders -good relations	- good vision - working responsibility - loyalty to organization - be honest to work and self - awareness in roles	- information technology - adaptation to organization - urgent solving
others; state enterprises, proprietor, freelance factories	- academic abilities - research abilities - to listen to others opinions - be on time - to respect others	-	-	-

The findings above demonstrate that the main factors, which are both the supporters and obstacles, for graduates entering the architectural job market are their qualities, qualifications, properties and abilities. They can be written like this function;

Jobless = $f (X_1 + X_2 + X_3 + X_4)$,

when

X_1 = low quality

X_2 = low qualification

X_3 = bad property

X_4 = incompleted ability.

To design the educational management for the Faculty of Architecture and Planning Thammasat University, three mainstream and alternative benchmarks of educational management guidelines have taken priority: entrepreneurs' satisfaction, standardization and students' voices. All three benchmarks lead back to the organizing and teaching processes, the developing curriculum, the determining learning standards or requirements etc.

Furthermore, the entrepreneurs' satisfaction relates to general qualifications, identifications, and abilities of the graduates under the trend of selecting between government universities and private universities at a rate of 3:1. Standardization means new curriculum structure. The students' voices indicate the reduction on central control and standardized testing. In order to be effective, the Faculty of Architecture and Planning Thammasat University have formulated own curriculum based on the National Education Act A.D.1999. Therefore, the new curriculum of the faculty, emphasizing intelligence and thinking, consists of 25% of general basic courses, 10-15% of elective courses, and 60-65% of architectural program courses.(see table 3)

Table 3 Analysis Results of the Curriculum's Comparison

Curriculum structure (%)	Faculty of Architecture and Planning Thammasat University	Research Result of Ratch Rueng-ut-wiboon (2006)	Research Result of Pornphan Verapreyagura and others (2007)
general basic courses	15-20	25	25
elective courses	3-5	10	10-15
architectural program courses	75-82	65	60-65

Table 3 shows that the suitable curriculum and learning formula of general basic courses, elective courses, and architectural program courses. The general basic courses are humanities, social sciences, language, mathematics, sciences, environment, technology, and law which can improve qualifications and qualities for the graduates. Elective courses such as finance, marketing, economics, specific law, and computer can also improve the graduates' abilities.

Architectural program must retain core courses on program principles and technology, theory and design, material and construction technology, structure, environmental, architecture-related courses etc. They can improve the graduates' professional skills.

All in all, education management, guidelines for curriculum development and learning development reflect that the ratios among general basic courses, elective courses and architectural program courses in the curriculum structure must be reformulated. Learners potential requires both thinking and working.

Research Conclusion

Education reforms in a changing world arose first against neo-classical education or 'humanistic education.' Its effects forced instructors to teach for testing, changed curriculum standards, and students became academic entrepreneurs. The Faculty of Architecture and Planning at Thammasat University adjusted to these changes. This quantitative research approach focuses on educational management guidelines. The research's findings reveal three mainstream and alternative approaches to educational management guidelines. All three focus on external factors such as entrepreneurs' satisfaction, standardization, and students' voices. The entrepreneurs' satisfaction relates to general qualifications, identifications, and abilities of the graduates under the trend of selecting between government university and private university at a rate of 3:1. Standardization means new curriculum structure and students' voices call for a reduction of central control and standardized testing.

The research results point that the curriculum of the faculty can be self-sufficient and sustainable under a structure; 25% of general basic courses, 10-15% of elective courses, and 60-65% of architectural program courses. In addition, architectural program courses must cover more subjects to develop individual properties and abilities of architectural students. It is possible that the faculty may not adopt the curriculum structure but adopt the contents in each subject, such as content on the architectural profession and research in the field.

Thammasat University can use these research results for setting and developing graduate quality control.

The entrepreneurs' satisfaction can be the catalyst and mechanism for the educational institutes to prepare students for the job market, making them aware of the professional changes that are occurring. In today's information age, jobs that used to require low levels of reading and mathematical skills now require the worker to use and understand

1,000 page technical manuals and computer-assisted diagnosis and treatment of job-related problems (National Center on Education and the Economy, 1989).

To prepare students for this new changing era, the curriculum must be reformed. National Educational Goals and Standards have been developed for a number of subject areas. New curriculum content and teaching strategies ask that students not only master factual knowledge but learn to apply that knowledge by reason and solving real-life problems. If the reform is successful, content and pedagogical characteristics of instruction will need to change dramatically as will classroom assessments. (Porter, and Archbald. 1994).

Acknowledgement

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