First Draft

Linkage between Higher Education and Labor Market in Thailand

Phasina Tangchuang*
phasina@yahoo.com

Contents(to be improved)

Introduction

There is today a widespread trend amongst over-education and under-education (Hogarth, Terence and Wilson, Rob et al, 2003 ; Ryan, Chris and Sinning, Mathias, 2011). By the way, it is even extremely widespread trend that the education providers to strengthen their vocational logic at the expense of their educational logic(Phasina and Mounier, 2010). The paradox of such a "vocationalist" orientation lies in the fact that its advocates look to legitimate it by way of its alleged positive effect on the quality of education(Mounier and Phasina, 2010). Public universities have not been excluded from this trend. In fact, they tend to shape their policies to correspond with economic dictates. By delivering to their students what they believe to be more useful abilities in relation to job requirements, they believe they are meeting the demands of critics who accuse them of delivering only "scholarly knowledge", which they claim is of little use to society and not very cost-effective. Public Universities in Thailand follow this trend by pretending better meet labour market needs and, in particular, employers' demands. In order to justify this strategy, they have become accustomed to measuring their own performance against the employers' satisfaction with university graduates. Numerous studies have been carried out in Thailand to assess the performance of higher education institutions using what is called a "competency approach" (Phasina, 2002; Chatsuda 1998; Sanpattiroop 2002 ;Sukalya and Nimitr, 2543). In other words to link between higher education and labor market.

---

*CELS Director, Faculty of Education, Chiang Mai University

I. The "competency approach": the choice of universities

From time to time, most of universities in Thailand would evaluate their educational outcomes in order to assessing their adequacy to the labour market as a reference to improve their curriculum or show to the Quality Assurance(QA) and Thai Qualifications Framework (TQF). Methodologies used in collecting database are varied from one university to another, such as doing by departments, faculties or by the whole university. These kinds of assessment have been a long tradition revealing the concern of higher education institutions to satisfy the demand on the labour market (Theera, 1986; Ratana et al, 1996; Planning Division CMU, 1998; Boonsong et al, 1999; Sombat & Arunee, 2003; Klewpan et al., 2003) where Uthai is addressing accurately to this question (Uthai, 2003).

The most common data collection is a field survey to be designed to reveal where university graduates were placed in the world of work by exploring three major issues: firstly, access of graduates to jobs; secondly, adequacy of fields of studies; and, thirdly, degree of satisfaction of employers with university graduates. Firstly, the access to jobs dimension of the survey is supposed to measure how well the outflows of graduates from the university meet the needs of the labour market. The answer to this question is supposed to indicate the standing of the University. Secondly, the correspondence between the fields of study and the jobs performed by the graduates is meant to assess the match between supply and demand of graduates in qualitative terms. Thirdly, the degree of satisfaction of employers with graduates is meant to measure the adequacy of skills delivered by the university as determined by employers' needs.

The population investigated normally comprised those alumni who filled up questionnaires during their graduation exercise. While another questionnaire was sent to employers concerning the third dimension. This part of the study is described later.

Table 1 The top 10 most engage jobs of graduates in 2010(B.E.2553)

University	employed	unemployed	furthering study
NIDA	91.38	7.35	1.27
Sunaree Technology U	84.17	4.54	11.29
Prachomklao Dhonburi	79.37	12.33	8.3
Prachomklao Ladkrabang	79.24	12.43	8.34
Srinakharinwirot	78.36	13.59	8.05
Naresuan U	77.31	15.56	7.14
Burapha U	75.22	18.46	6.32
Mahidol U	74.89	10.51	14.59
Chiang Mai U	74.48	13.86	11.66
Chulalongkorn U	73.68	12.3	14.01

Source: http://www.dek-d.com/board/view.php?id=1979131

Regarding access to jobs, it appears that over the whole period, about 54-91 per cent of graduates got a job within three months of their graduation. Contrasting to the statistic revealed by National Statistic Office(www.nso.go.th) indicated that the higher education diploma holders are the greatest group of unemployed.

However, it is interesting to note that this percentage was very high. This paper would then try to understand the fact that "is there a mismatch between skills supply and demand in the labour market in Thailand?"

Regarding the correspondence between the fields of study and of work, about 50 per cent of graduates conclude that the two are related. Conversely 50 per cent believe they are not. These figures are, of course, not very meaningful because they rely on a subjective assessment of the matter. Frustrations experienced on the job relating to graduates' expectations may lead them to think that educational curricula are not adequately designed to prepare students for available jobs or that employers are not sufficiently careful to put the right graduate in the right job. Significant differences between fields of study can be observed. For example, more than 50 per cent of graduates from social science, economic studies report that field of studies and work are not related, whereas this figure decreases to 3 per cent in the case of graduates from health sciences and engineering. This of course can be interpreted in different ways and would require more in-depth investigation to be understood. One interpretation would be that the domain of social science and economics are so wide that knowledge acquired during the studies prepares the student for a large range of jobs. Students with no great awareness of this fact and who are poorly informed about the jobs they can get at the end of their studies may be frustrated by the unexpected reality of work. However, it could also mean that they have not been well advised as to what jobs are possible or that their studies were not very relevant to the reality of work. Evidently the domain of health and engineering are narrower and perhaps easier to characterise and understand in daily life than the others. Students in health sciences and engineering choose their studies with more accurate information about their future job and thus their degree of satisfaction much more frequently meets their expectations. This dimension of our study should be explored more deeply and extensively because it is well known that the cost-effectiveness of any university depends largely on how well students are acquainted with the fields of study and which fields of study lead to which jobs. It is this information which will shape their expectations and motivations.

At this point, we would like to focus more intensively on the third aspect of the study: that regarding the degree of satisfaction experienced by employers. As mentioned, this part of the study borrows from a "competency approach". This aspect of our investigation asks fundamental questions about the role of higher education and, more importantly, about the role that the university uses to define itself.

1.1 Clusters of questions and definition of competencies

Nine clusters of questions used in the questionnaire are as follows: 1) academic and professional knowledge; 2) critical thinking; 3) problem-solving capacity; 4) English proficiency; 5) computer-use abilities; 6) leadership; 7) responsibility; 8) sense of initiative and creativity; 9) curiosity and propensity to learn.

These clusters define a list of competencies, or elementary components of skills, that are supposed to be expected by employers from a workforce possessing higher education diplomas. This approach was assessed from the perspective of the theoretical framework relying on the skill analysis drawn by Mounier (2001) and developed by Buchanan et al (2004), which shows that skills are the product of three socially determined "logics" which

are “technical”, “behavioural” and “cognitive” in nature. These authors suggest that the cognitive logic is mainly forged in the education system and relates to the knowledge-content of studies, while the behavioural logic is a complex result of culture, education, individual experience and personal character. The technical logic is mainly forged on the job by a process of learning by doing. The skills envisaged in the competency approach are mainly competencies related to the cognitive logic of skills (for example academic knowledge, critical thinking, problem-solving capacity, English proficiency, and computer-use abilities) and to behavioural skills (for example leadership, responsibility, sense of initiative and creativity, and curiosity and propensity to learn). Technical skills related to professional knowledge and know-how are mixed up with academic knowledge. This list of competencies borrows from widespread beliefs which hold that the “competency approach” to skills – which involves pairing isolated abilities of individuals more or less with occupations - presupposes that the performance of graduates in their jobs is underpinned by these abilities and that employers expect such performances. In fact, as Mounier and Buchanan have shown, the definition of skills is a socially contradictory process of bargaining – both individual and collective - between employers and employees. Employers usually define skills from the job perspective (abilities required to perform a particular job) while employees usually attempt to impose a definition based on an individual’s knowledge and abilities (their education and professional experience). The stakes in the bargaining process are the determination of the conditions of work, the location of the employee in the hierarchy of the enterprise and the level of wages and rewards as well as the prospects of promotion. The competency approach ignores the fact that skills are social relationships operating within the enterprise, or even within the society, which are determinants of labour productivity and income, that is, of labour costs.

More concretely, asking employers whether or not they are satisfied with the academic knowledge of their employees assumes that they can have a clear idea of the relationship between academic knowledge and professional abilities, or that they can establish a relationship between academic knowledge and skills. This they surely cannot do because there is only a tiny cognitive link between skills and knowledge. By the same token, when employers are asked whether or not their graduate employees have problem-solving abilities – which is a cognitive ability and involves reasoning – they probably assess only the employee’s behaviour and willingness to face unexpected situations.

Moreover, responses from employers may provide no help in defining academic orientations and policy. For example, behavioural components of skills are largely embedded in and shaped by cultural traits of the society; this is true particularly in regard to the sense of leadership, responsibility and initiative, and even attitudes regarding knowledge and learning. In Thailand these personal abilities are usually denied by hierarchical social relationships and education has little power to change them. However, the study assumes that employers are looking for such behavioural qualities. This can be true or not, depending on the management methods they use and the positions occupied by Chiang Mai University(CMU) graduates in the enterprise. For example, some employers are looking for an obedient and compliant workforce prompt to execute orders from the top managers; in that case top managers would find that individuals are sufficiently endowed with aptitudes of leadership, responsibility and initiative even if this endowment is very small. In other words, there are no “substantial” or quasi- natural competencies that higher education should transmit to its students. Competencies of individuals are not independent of the social structure and culture, of labour management traditions or from the job in which they are exercised in the enterprise. This

assertion can be partially substantiated by the results of the survey and particularly by the differences between graduates from different academic disciplines.

1.2 Dissatisfactions of employers

Very roughly, the table 2 below reports that a majority of employers are satisfied with cognitive and behavioural abilities(for this paper, the author uses the case of Chiang Mai University graduates as an example). However, on the one hand, straightforward questions tend to induce answers and this explains probably the high percentage of satisfaction of employers. More specifically, employers appreciate the following qualities of graduates:

Table 2 Assessment by employers of CMU graduates competencies by cluster of disciplines (% of employers surveyed)

Competencies	Humanities and social sciences	Sciences and technology	Health sciences
academic and professional knowledge	84.4	90.6	78.0
critical thinking and problem solving	87.8	71.4	83.1
communication	78.2	81.8	78.1
computer-use abilities	73.4	90.2	80.9
curiosity and propensity to learn	87.3	92.9	93.5
Human relations	96.1	94.0	91.6
leadership	80.6	62.2	70.0
ethics	92.9	100.0	93.1

Source: field survey regarding to Chiang Mai University, 2001

Anyway, these results are difficult to interpret because the response of employers can be based on real competencies of CMU graduates in their cognitive and behavioural abilities as well as on employers' assessment in regard to their own expectations. Differences between disciplines may be more reflective of differences between employers' expectations than differences in abilities of graduates from different disciplines. For example, in humanities and social sciences, where professionals have often to process, and report data and to use the English language both spoken and written, these competencies may be felt weak by some employers more acutely than in the case of employers of graduates from other disciplines. Similarly, as the knowledge acquired by graduates in the humanities and social sciences is usually less specialised than for other disciplines, employers expect from these graduates a greater ability and propensity to learn more specialised knowledge on the job than they do from graduates of other disciplines. In other words they rely on the intelligence of those graduates rather than on their know-how. As their expectations are high, their frustration level can also be high. Similarly, employers of graduates from science and technology and from health sciences often employ them with the intention of promoting them to top management positions after some years of experience. For that reason, they can be more sensitive than other employers to the personal characteristics of graduates. Their leadership qualities or their capacity to deal with new problems becomes important when the intention is to give them more responsibility.

If higher education is to be guided by the results of such a study in order to produce the competencies in demand in the labour market, by sticking too closely to employers' demands, it runs the risk of abandoning academic concerns and providing only vocational and professional skills. This issue is a recurrent one in debates about higher education. It is necessary to seriously address it here.

II. Cognitive skills: the choice of employers

An underlying postulate of the survey was that supplying competencies needed by employers in the labour market is a major role of higher education. However the results of our study may lead to another conclusion. The in depth interviews with employers conducted with open-ended questions yielded more subtle results than the data obtained from the closed questionnaire.

The in depth interviews of employers reveal the most interesting part of the study. Some employers do not expect graduates to have the required and already formed skills to perform their job immediately after their graduation. This position is double sided.

On the one hand, employers (when surveyed) complain that education is useless for work and does not provide the skills needed by their workforce. However, contrary to what most labour market experts and universities understand from employers' claims and to what in turn they assert with a misplaced confidence, employers do not imply by this complaint that the education system should provide those skills. On the contrary, as the interview component of our study showed, employers claimed that training their employees is their own prerogative and cannot be delegated to any other institution. In their view, the right skills that employees have to acquire to perform the jobs they are assigned to cannot be delivered outside the work process itself. Consequently, as any job provide the condition of learning skills, the same term unskilled labour can be largely misleading (Santelmann, 2002). Therefore, in order for skills to meet employers' needs they must be formed and acquired through in-house training and on-the-job learning. In other words, the skills that are useful and used in the work process are those acquired by learning by doing in the real, specific conditions of the job. Precise specifications of the jobs, enterprise management styles and work confidentiality are some of the reasons why employers adopt this stance. This stance corresponds to a stream of economic analysis which claim that skills are threefold: cognitive skills, behavioural skills and technical skills(Mounier, 2001). If school can deliver cognitive skills, the workplace only can deliver the right behavioural and technical skills (Buchanan et al., 2004; Wahurst et al., 2004). When employers say that the formation of skills is their own problem and cannot be the task of educational institutions, they are saying they expect little from education. However, from another perspective they are saying they expect much more from education.

On the other hand indeed, they assert that graduates who have received a good scholarly education learn the on-the-job skills better and faster. Although academic opinions can differ (Kasem, 2001; Adul, 1999; Tienchai, 2001), employers say that they have always found that people able to think, to understand and to make decisions are those who acquire more easily and rapidly relevant behavioural and technical skills needed for their jobs. These individual abilities may depend on the innate talents and characters of workers. However, they depend also - and employers acknowledge this fact - that the quality of education is of paramount importance for employees to acquire the relevant cognitive skills needed to underpin the

acquisition of behavioural and technical skills in the work process (Phasina and Mounier, 2002). By acknowledging this fact, employers admit that the vocational abilities of graduates are underpinned by their educational abilities. This important result can be summarised by saying that a major role for higher education is not to deliver productive skills, but to provide students with a "solid cognitive ability", that is with an accurate and comprehensive knowledge in their disciplinary field[1] and beyond and with the capacity to enhance their reasoning ability and understanding – qualities that they will use in their work and life.

These results of this qualitative study are supported by the results of another qualitative study of the formation of skills conducted with employers and carried out in a Centre for Education and Labour Studies(CELS) research programme on the Thai labour regime[2]. It is clear that a majority of employers interviewed did not expect higher education to provide graduates they employed with the competencies listed in the questionnaire of the competency survey. What they expect are graduates with solid educational backgrounds, with a good mastery of the knowledge of their disciplines that will prepare them to reason intelligently, enable them to learn independently and to comprehend a situation so as to be able to respond to it.

Open-minded employers have understood that the skills they deliver to the workforce are dependent of the quality of cognitive abilities that education in general and higher education in particular is supposed to deliver to its graduates. It is a great paradox that, while employers defend an articulated balance between the components of skills, universities adopt a mere and narrow vocationalist stance.

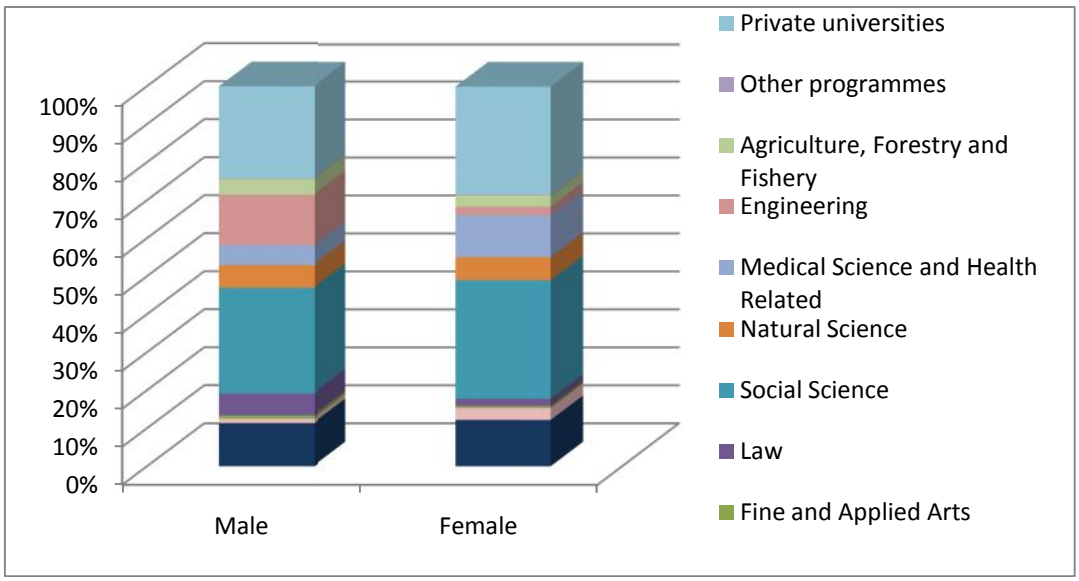
III. Linkage between Higher education and labour market

Graduates from higher education institutes are normally expected from the employers to be able to be white collar with skilful in their discipline. Underlining the philosophy of education, schools or universities should deliver cognitive skills or knowledge related to the future career, not directly to needs of business and industry(Mounier, 2010;Ryan, Chris and Sinning, Mathias, 2011). More interesting reports on following-up universities graduates employment during the last 10 years are not changed. More than 35% of whom engaging the jobs different from the discipline they earn(Lampang Rajabhat University, 2552) which Chris and Sinning, Mathias(2011) called mis-match skill.

[1] - The terms "accurate" and "comprehensive" encompass the idea that scholarship and knowledge provide the capacity to apply theoretical frameworks to real situations and problems, and the reverse. Criticism of "scholarly knowledge" that cannot deal with concrete social and technological issues is legitimate when this capacity is missing.

[2] This three year research programme has been carried out from 2003 to by CELS research team under the coordination of Dr Phasina Tangchuang. It has been supported by the National Research Council of Thailand (Phasina Tangchuang 2007).

Figure: Distribution of graduates by field and by gender, Thailand, 2002



Source: Statistical Year Book 2004, from Commission on Higher Education, Ministry of Education

Besides what have been mention earlier, when the Phoenix model: serving private interest(Phasina and Mounier, 2010), has been applied by taken-for-granted throughout the globe including Thailand, public universities become autonomous while private ones offer a great deal number of diplomas. Bachelor degree in Engineering, Business Administration programs, as well as certificates for teacher education and graduate diplomas(Masters and doctorates) in Educational Administration have been widely offered according to market-driven. It is expected that there would be more than 200,000 new graduate(bachelor, masters and doctorate) annually from those private and Rajabhat universities regardless the quality concern(Thongchai, 2011; Krisnapong, 2011; Varaporn, 2006). This strategy is worst comparing to what employers expected – competencies and skills needed to support their businesses and voiced that "too many graduates ill-equipped, warns minister" (VN News, 2007)

Under the Phoenix model concept, only rich people could access to any kinds and levels of education. Market needs are the ultimate objectives of running their education. Most of the in-trend programs would do some road show or marketing to attract the students whom are called "customers" by offering practicum, e-learning, as well as MacDonaldization or "fast track diploma", contrasting to European policy which look at the quality education and training for global competitiveness and employment(Bainbridge, 2003).

(Dr.Phetcharee should have more detail in her thesis)

IV.Conclusion

Education and work: an impassable controversy?

As already mentioned, the long standing controversy between education and work is recurrent (Mounier, 2006). The book by Vermilye (1977) bears witness to the fact that this debate was already fierce in the seventies in the United States. Since then, have we learnt anything new? Apparently not. The arguments have been updated to some extend as

witnessed by the important literature dedicated to this issue. Today, however, advocates of a tighter subordination of education to work[3] – what has been dubbed "vocationalism"- seem to have won the battle, and the "competency study" we have presented here suggests that university authorities have yielded under the pressure. Most advocates of a vocationalist higher education strategy invoke globalisation and international competition as the rationale for doing so (Tienchai, 2001; Krisnapong, 2009, 2011). Endangering the quality of education by implementation of a vocationalist policy position would be the price paid for the claimed competitive advantage it would give to the country. Thankfully some eminent educationalists around the world (Bruner, 1996; Cobb, 2002) and in Thailand (Kasem, 2001; Thongchai, 2011) argue against this mainstream view by reaffirming the prominent role of higher education in promoting knowledge and culture in the society.

Our contention is that analyses of higher education performances based on a competency and market-oriented approach could be useful if they avoided recurrent assumptions which structure the survey designs and prejudice the results. In this case, the major assumption is that employers expect higher education to provide potential employees with the skills, or competencies, needed in their businesses. Such surveys postulate that universities would perform better by strengthening their vocational mission. We have seen that a closer look at employers' views contradict this first superficial analysis. Our study reveals that the competency approach impoverishes the concept of skills to such an extent that using the survey results to orient universities' policies would lead to a very low quality of higher education. The underlying expectation of employers is that higher education would strengthen the cognitive abilities of students and that militates in favour of a bolder educational orientation of higher education.

The selection of individuals for jobs is based on the acquisition of knowledge in the education system. As a consequence, skills are easier formed on the job on the basis of cognitive abilities acquired through education . Thus, the main role of higher education is to develop knowledge, maintain its quality and to prepare young people to acquire it. Reducing the role of higher education to the production of skills narrowly defined from a job perspective would lead to neglecting its key role in preparing coming generations for challenges ahead. This is well understood by many employers and it would be paradoxical if employers would advocate autonomy of higher education from labour market concerns for the sake of the quality of the education it delivers, whereas universities would advocate a tighter subordination to occupational needs.

In order to overcome the recurrent controversy between education and work and in order that more relevant studies of the performance of higher education be conducted taking account of its major mission, it is necessary that universities asses their performances and relevance to the society by defining accurately the cognitive abilities that should be transmitted to students, not only in higher education, but at each level of studies throughout the educational system. In this endeavour higher education has a prominent role to play.

[3] - This is very often the case when for instance policy agencies, such as the NESDB, propose to plan the orientation of students between the different streams of study according to an alleged need of the labour market.

V. References

Adul Wiriyawetkul (1999). **Higher Education in Hong Kong**. National Education Commission. Bangkok: Pimdee Co. Ltd. (in Thai)

Bainbridge, Steve; Murry, Jully; Harrison, Tim and Ward, Terry(2003) **Learning for Employment: Second report on vocational eduvation and training policy in Europe**. Luxembourg: Office for Official Publications of the European Communities.

Boonsong Nilkeo, et al. (1999). **Following-up Chiang Mai University Graduates. A research report**. Chiang Mai: Chiang Mai University.(in Thai)

Buchanan J. Watson I. and Briggs Ch.(2004). **Skill and the Renewal of Labour: The Classical Wage-Earner Model and Left Productivism in Australia**. In Wahurst at al

Chatsuda Chattong (1998) **Opinions of 4th year Chiang Mai University students on furthering education to Master's Degree**. Master Thesis, Payap University.

Kasem Watanachai (2001). "University roles in the country development." **ASAIHL-Thailand Journal**. Vol. 4 No. 2 November. (in Thai)

Klewpan Kamnonngew et al. (2003). **Expected Characteristics of Chiang Rai Vocational College graduates as perceived by Chiang Rai employers**. Independent Study, Graduate School, Naresuan University. (in Thai)

Krisnapong Keratikorn(2009) **Crisis, paradigm, concept for education reform**. Bangkok: Higher Education Commission(in Thai)

_____(2011). **Reforming Thailand to Knowledge-based siciety and innovation: a revision from education and learning.** A symposium on Science, technology and innovation for development. January, 11

Lampang Rajabhat University(2552) **Employment of the graduates from Lampang Rajabhat University 2552.** Retrieved from: lprumis.lpru.ac.th/Group_SKO/Send_2553/Gradinfo52.pdf

Mounier Alain (2001). **The Three Logics of Skills.** Sydney BVET, (also in ACIRRT Working Paper n° 66

Nadler, L. & Wiggs, G.D.(1986) **Managing human resource development: A practical guide**. San Francisco : Jossey-Bass Publishers.

National Education Commission. (1998). **The 8th National Education Development Plan(2540-2544***)*. Bangkok: Attapol Printing. (in Thai).

Phasina Tangchuang (2001). "Concepts of Knowledge based Economy promotions in Higher Education Institutes". **ASAIHL-Thailand Journal**. Vol. 4 No. 2 November. (in Thai)

Phasina Tangchuang & Mounier, A (2002). **Education, labour and knowledge based economy development: The role of higher education towards 2020. A reappraisal**. A paper presented in ASAIHL Conference hosted by Rangsit University, 29 July.

_____(Eds. 2010) **Education and Knowledge in Thailand: The quality controversy**. Chiang Mai: Silkworm Books.

Phasina Tangchuang; Panyanuwat, Anurak and Xiangchee, Tay (2002). Employers' satisfaction toward Chiang Mai University graduates during academic years of 1997-2001. A research report.. Chiang Mai: Chiang Mai University.(in Thai)

Planning Division, CMU. (1999). **State of work engagement of alumni 32**. Chiang Mai University. Chiang Mai: Chiang Mai University.(in Thai)

Ratana Sakorn et al. (1997). **Following-up the 2533 Academic year**. Chiang Mai University Graduates. A research report..Chiang Mai: Chiang Mai University.(in Thai)

Ryan, Chris and Sinning, Mathias (2011) **Skill (mis-)matches and over-education of younger workers.** Australia: NCVER

Sanpattiroop (2002). "New Blood of Thai Children are no Emotional Immune". **Sanpattiroop Journal** Vol. 5, No. 54 September (in Thai).

Sombat Noparak, & Arunee Onsawat (2003). **Following-up the quality of M.Ed**. A research report. Graduate School: Naresuan University.(in Thai)

Sukalya Thamaraksa and Nimitr Jindapornpitak(2543). **Employment, employability and employersatisfaction toward Thai Chamber of Commerce University science and technology graduates**. Retrieved from: utccjournal.utcc.ac.th/files/4305036.pdf.

Theera Tongyeesun, (1995). **Following-up the work performance of M.A in Social study graduates**. Bangkok: Center of Kasetsat Training Promotion.(in Thai)

Thongchai Chewapreecha(2011) **Issues in Thai education system** A dialogue delivered at Isra Institute Retrieved from http://thaireform.in.th/news-education/2642-2011-02-08-07-33-31.html(in Thai)

Tienchai Keeranan (2001). "University roles in economic development."**ASAIHL-Thailand Journal.** Vol. 4 No. 2 November. (in Thai)

Varaporn, Bovornsiri(2006). "Higher Education in Thailand" in **UNESCO-APEID Higher Education in South-East Asia**. Bangkok: UNESCO

Vermilye, Dyckman W. (1977). **Relating work and education**. San Francisco, Washington: London: Jossey-Bass Publishers.

Wahurst C, Grugulis I. and Keep E. (eds). (2004). **The Skills That Matter**. New York, Palgrave, Macmillan