

Distinctive Competencies in the Knowledge Economy as Driving Trends in Higher Education : A Case Study of English Instructors, College of General Education and Languages, Thai-Nichi Institute of Technology

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Abstract - The notion of knowledge economy is marked as a shift from the old economy of the industrial age. As in a new economy which depends on knowledge, ingenuity, innovation, and mobilization of the talents of all, it is significant for government leaders to develop all the potential of their human capital. However, limited research attention has been studied in the context the factors to develop students' competencies by teachers in education. This research investigates the pedagogy employed by English instructors, College of General Education and Languages, Thai-Nichi Institute of Technology by using in-depth face-to-face interview and classroom observation. Research findings indicate that the participants attempted to develop a human capital in the students using various enhancement strategies such as student-centred learning environment and creativity and critical thinking environment. Further, this research highlights the importance of globalization, knowledge production, teaching-learning process and pedagogy literatures.

Keywords- knowledge economy, human capital, globalization, creativity, critical thinking, higher education

I. INTRODUCTION

Powell and Snellman [1] define a knowledge economy as a rapid obsolescence where knowledge-intensive activities contribute to an accelerated pace of technical and scientific advance. This type of economy, as demonstrated by Shapiro and Varian [2], creates intellectual capital and exploits in a dynamically changing future. Thus, several researchers, such as [3] and [4], state that successful individuals are those who possess the ability to innovate and learn continuously. This relies with the suggestion indicated by OECD [5] that government policies should stress upgrading human capital through promoting access to a range of skills, especially the capacity to learn. A more radical approach is advocated by Brown et al [6] who indicates that Britain has promoted the creation of a highskilled, high-waged economy by upgrading the education and skills of its workforce. The creation of world-class skills, thus, is assumed to be a route to economic prosperity, reduced income inequalities and social cohesion. Such policy prescriptions rest on the idea of a knowledge economy where innovative ideas and technical expertise hold the key to the new global competitive challenge. Under the re-evaluation that has accompanied this new insight, a win-win scenario emerges, not through the quality of the high-tech goods produced in the West but through the ability of Western economies to introduce change, innovation and productivity growth. Therefore, the policy

implications are to support innovation and entrepreneurship by producing 'more highly skilled workers' through education and training policy focused on lifelong learning, in order to sustain a shift toward more high value-added activities that might remain within the economies of the OECD [6].

II. LITERATURE REVIEW

Canada was the first country to achieve the target of over 50 percent of people aged 25 and 34 to enter the job market with a tertiary level qualification, followed by Korea, which has engineered a massive growth in tertiary provision since 1991. This is reliant on the Prime Minister Gordon Brown' statement as "In the past, we unlocked only some of the talents of some of the people; the challenge now is to unlock all the talents of all the people." [6]. Agrawal [7] further supports that global competition is understood as a competitor for skills- the more skilled the workforce the more competitive the economy. Therefore, the nations that succeed will be those that bring out the best in people and their potential [8].

Guruz and Pak [9], moreover, list the significant factors for the new competition as follows:

- An increasingly competitive environment where old and new competitors consistently up the ante in pursuit of competitive advantage;
- An increasingly supply of highly educated workers; and
- A shift towards the global alignment of business processes and the international benchmarking of quality standards, facilitated by new technologies.

Hargreaves [10] further proposes that the new forms of knowledge can be promoted through meta-cognitive abilities and skills as thinking about how to think and learning how to learn; the ability to integrate formal and informal learning, declarative knowledge (or knowing that) and procedural knowledge (or know- how); the ability to access, select and evaluate knowledge in an information soaked world; the ability develop and apply several forms of intelligence; the ability to work and learn effectively and in teams; the ability to create, transpose and transfer knowledge; the ability to cope with ambiguous situations, unpredictable problems and unforeseeable circumstances; the ability to cope with multiple careers- learning how to "re-design" oneself in a job market, choose and fashion the relevant education and training. In essence, it seems that teachers will play

as an important role in the move to become the 'learning society'- that is to create human capital which directly affects knowledge accumulation and thus productivity growth. Some analysts suggest that basic reading, writing and arithmetic skills are no longer enough for workplace performance [11] as further findings stress the fact that there are new or changing competencies which are highly valued in the labor market [12]. This is moreover proposed by Tan [13] who states that the development of the knowledge economy is changing labor market demands for competencies and skills. There is evidence that upskilling has taken place throughout OECD economies, partly derived by an increase in demand for skills and partly in response to rising creative education attainments in populations. Horner and Matson [14] further advocate that higher levels of creative education are needed not only just to better prepare knowledge workers, they also improve the likelihood of participation in further learning throughout adult life, and reduce the chances of long-term unemployment and marginalization. The relevant conceptual framework of Graham [15] contends that individuals with high levels of creativity and critical thinking are more likely to engage in entrepreneurial activity and create a greater amount of knowledge jobs than less-creative entrepreneurs.

III. METHOD

This study employed ethnographic research involving participant interviews and observation to investigate the points of views of 10 English instructors. The research design for this study comprised 5 phases:

1. Twenty hours of observation
2. Interviews with 10 English instructors
3. The collection of site documents and associated materials
4. Analysis and synthesis of data derived from the ethnography
5. The interpretation and tabling of findings from the ethnography

The main research aims and objectives of the study were:

- To conduct a comparative study of the skill strategies of 10 English instructors in the context of increasing students' human capital
- To observe a major contribution and pedagogy of the instructors' role in strategies of students' knowledge production

The research was based on in-depth face-to-face interview with 10 English instructors and 20 hours of teaching observation, English Department, College of General Education and Languages. The observations included the classroom environment and the teaching strategies employed by English instructors as well teaching material using in the classroom.

IV. RESULT AND DISCUSSION

It is concluded that four issues dominate the English instructor classrooms observed during the ethnography.

A. Student-centred pedagogy

The ethnography revealed that a student-centred pedagogy dominates the classrooms observed. The teachers observed enabled to motivate students to create ideas or solve-problems in the classroom. The interaction between teachers and students demonstrated the ability to generate creative and critical thinking in students as questioning was frequently employed during observation. However, few students focused on rote-learning whereby students wrote verbatim what the teacher advised, copied material exactly from textbooks, avoided questions and original inquiry. For the interviews, it was indicated that many teachers expect and support this student-centred learning experience in the classroom. The majority of teachers in the interviews were so accustomed to a student-centred which they were ready to apply by a more creative and critical style of teaching and learning. However, the some teachers could not explain the significance of student-centred approach towards the rise of knowledge economy.

The notion of knowledge economy is stated by Graham [15] who contends that it is a shift control of education from the state to the global knowledge economy as knowledge has become broadly transgressive-that is, not bounded by disciplines. Therefore, the schools need to embrace a transdisciplinary approach that involves thinking about knowledge differently to the industrial model, with a commitment to creativity and problem solving. Graham's thesis requires the adoption of student-centred pedagogy to realize the shift to applied knowledge [15].

B. Teaching materials

The ethnography found that the use of PowerPoint were the major resources in the classrooms observed. Some teachers distributed newspaper, articles and magazines to students for discussion. However, the evidence of Internet access in the classrooms observed was less indicated. The minority of teachers observed revealed that it was difficult to access Internet in the classroom as there was not enough time. Few teachers believed using Internet in the classroom was not efficient as many students would spend the time chatting through web messenger such as MSN and other social networks such as Facebook. However, the majority of teachers expressed that students had to surf the Internet for their tasks and assignments. Some teachers indicated that Internet was one of very important teaching materials as teachers had to search for updated information, news and interesting articles to apply with their textbooks. Most of teachers described that the best way to use the Internet in the classroom was to ask students to bring their own notebook to university.

Digital technology is said to shift people from the passive cogs of the manufacturing economy to the active choreographers of the creative knowledge economy by way of speed and flexibility [15]. Developing ICT human resources has the potential to transition developing countries into the global economy [16]. Haddad and Jurich [17] then indicate that books and papers involve limited interaction. Computers require much higher interaction, while the Internet facilitates the highest

interactivity of these media. Thus, the Internet enables both students and teachers to access multiple sites at the same and different times.

C. A motivation of critical and creative thinking

The evidence derived from the ethnography supports that teachers tried to motivate critical and creative thinking by encouraging students to make a discussion in the classroom. This is also appeared from the interviews conducted that the teachers are aware of the significance in which critical argument is formulated and creative problem-solving is applied to knowledge production. It is moreover revealed that the teachers believed creativity was vital for all levels of education. The majority of teachers interviewed believed that various kinds of English reading passages and articles were sufficient for students to practice their critical thinking in a form of a group discussion. Few teachers argued that the best way for practicing students' creative and critical thinking skills were to motivate students to start a question. However, the observations showed that students hardly raised their hands to ask for questions in the class. They chose to keep quite and answered their teachers that they understood what teachers had said.

The significance of creative and critical thinking is one aspect of a larger body of educational practices called 'active learning'. This is moreover stated by Horner and Matson [14] who indicate the key to develop critical thinking lies in creating conditions for participation rather than passivity, and in providing opportunities for emotional engagement with the materials.

D. A problem-solving ability

The interview phase of the ethnography revealed that many teachers regarded problem-solving as important for students. The majority of teachers indicated that students' ability to solve the problem comes together with critical and creative skills. Most teachers asserted that they provided sufficient foundation for problem-solving as required for university and social life through a various activities such as debate and role play. Some teachers believed that students would have a problem-solving skill experience when they had to go work in a real industry. Few teachers contended that as a Thai culture, students' parents always made a decision for their children.

In the classroom observations, it found out that teachers tried to support the ability of problem solving through various activities such as role play and debate. The students, therefore, were able to practice the speaking skill as well as practice their critical thinking at the same time. However, there was less evidence from the teacher observation indicated about how to solve the problems in real work place based on their real life situation. Further, there was no mention about creative problem solving skill which is one the most significant aspects for developing knowledge-based economy.

The notion of creative problem solving is defined by Lauder et al [18] as a method to improving the quality of solutions to problems and increasing effectiveness of solutions. Moreover, Kefela [19] supports that creative problem solving skills needs to include all three imperative factors: creativity, innovation and change.

Thus, it is significance for the teacher observation and interview that teachers should not generate only problem-solving skill through critical approach, but also develop students to be creator, innovator and appreciate a change.

V. CONCLUSION

The lack of understanding of the significance of global competition might be eradicated in part of greater connectivity between education and global economy. However, the findings from the ethnographic research revealed that student-centred approach, teaching material based on Internet access, a motivation of critical and creative thinking and a problem-solving ability were dominated by English instructors' observations and interviews. Although, these findings may not reflect a large framework, it could present the notion of change—that is a change from traditional classroom to a place where students have an opportunity to practice their analyzing idea, a place where students are able to ask a question without fear, a place where ideas can link between teachers and friends, and a place where teachers are not acting as a teacher but becoming students' facilitator. However, the significance of knowledge worker in the knowledge-based economy is not clearly presented in this research. Thus, it is imperative for Thai education to further concern on the value of knowledge production and the international competitive for Thailand to transition from a developing to a first world economy. This requires a shift from the passive inculcation of knowledge to a new paradigm in which teachers make learning tasks interesting, meaningful, and sufficiently complex and challenging to generate students who are motivated to undertake inquiry and, ultimately, to produce new knowledge.

VI. RECOMMENDATION

This study considered only the significant factors concerned by English instructors to prepare students for a knowledge economy. Future research should investigate a supportive learning environment for preparing students to become a knowledge worker for the future of Thailand's economic well-being. The education curriculum, thus, should correlate with Talent index, Technology index and Tolerant index based on the "The Rise of the Creative Class" theory written by Richard Florida [20].

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