Competence: Commodification of Human Ability

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The purpose of this article is to analyze the meaning and presumptions of competence in the concrete context of knowledge capitalism. First, the nature of competence as a 'commodification of human ability' that obtains a standardized monetary value to sell in the labor market, is elucidated by applying Karl Marx's critical theory. Second, it is further investigated that, in the new context of the global learning economy, the production of the competence as a commodity itself becomes a key industry, representing itself a crucial sub-system of knowledge capitalism. Third, this paper explains how competence discourse has a great deal to do with the current drastic changes in the educational paradigm from 'nation-state education' to 'global learning economy'. These changes are illustrated by how traditional school subject-based curricula are replaced by competency-based curricula, academic qualifications integrated into a unified form of qualification framework, and school achievement is evaluated according to the 'demanded workplace competence'. It is also argued that human competencies by nature have 'double-bind' characteristics: while it is pushed to meet the demands as knowledge commodities, human beings themselves are beyond any notion of tradability, and the new capitalism based on human commodities, if any, should reveal new rules to play the game.

Key words: competence, knowledge capitalism, alienation, demand-oriented education reform, learning economy, lifelong learning

Introduction

Competence has developed, as Raven depicted, to meet "the conspicuous irrelevance of much knowledge-based education to occupational performance and the failure of educational qualifications to predict occupational success" (Raven, 2001, p. 253). It was proposed as a parameter that conveys the workplace needs to the area of education and training. When the concept first appeared in the *American Psychologist* in 1973, McClelland asserted that traditional

intelligent testing fails to predict the capabilities needed in the workplace or for a successful life, and an alternative concept was necessary(McClelland, 1973). The Definition and Selection of Competencies (DeSeCo)'s recent publication, *Key competencies* inherited the notion of *successful life and a well-functioning society*, as of McClelland, based on the *demand-oriented* or *functional* approach.

"A competence is defined as the ability to successfully meet complex *demands in a particular context* through the mobilization of psychosocial prerequisites (including both cognitive and non-cognitive aspects). This represents a demand-oriented or functional approach to defining competencies (Rychen & Salganik, 2003, p. 43)" [italics added].

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Today, the 'demands' that reflects the 'particular contexts' goes with the demand of the global knowledge economy that the next generation of capitalism is facing, or knowledge capitalism, if you will. As Burton-Jones nicely puts it, "Knowledge Capitalism represents a generic new variant of capitalism, based more on the accumulation of knowledge than monetary or physical forms of wealth" (Burton-Jones, 1999, p. 21). Or, knowledge capitalism under the same regime of capitalism, employed the new ingredients of knowledge supply, exchange, production, and consumption, where competence turned out to be the central indicator of the conjoined body of labor with knowledge or the indicator of the 'knowledge worker'. Naturally most research into competence focused on the issue of 'expertise': what kinds of competencies are necessary to fulfill what purposes, etc. The notion of competence was positioned as a 'vanguard attractor' to convey the demands of the economy to school. In other words, the world of work began to 'demand' what and how schools teach, in which the notion of competence played the role of key parameter.

The urgent issue in this vein, is not to verify the 'comprehensive list of successful competencies,' since it is impossible and/or unnecessary. Scientific research on competence, rather, should be focused on the investigation of the underlying assumptions, its metaphorical usage, and the structural changes in education that the competence-based education reform might bring about: e.g. the purpose of competence-based education reform; the way in which education is handled in the context; methods and standards of new academic and vocational qualifications; establishing a new order of education and lifelong learning, etc.

In this article, I hope to shed light on the nature of competence under the capitalist mode of production, by illustrating several structural changes that the introduction of competence as a new DNA in the world of education will fatally bring about.

First, a critical review on competence will be conducted and this will then be analyzed by applying Marx's critical theory. For this, I illustrate the nature of competence as a 'commodified human ability' that obtains a standardized monetary value to sell in the labor market. I am going to argue that competence is not merely a particular *tool* to produce commodities, such as knowledge products, but also a commodity *itself*, equipped with the same characteristics of commodities in human experience.

Second, I further explain that the introduction of competence discourse accompanies the new context of the independent global learning economy, within which commoditized competence is produced, exchanged, and consumed. HRD, for example, becomes by itself a key industry in knowledge capitalism. The learning economy represents itself as a crucial *part* or *sub-system* of knowledge capitalism, in which competencies are becoming a key product.

Third, I am going to look into the paradigm shift in the background matrix. For this section, I will demonstrate that competence discourse has something to do with the drastic changes in the educational paradigm from 'nation-state education' to the 'global learning economy', which is already being observed in some Anglo-Saxon countries and even in Korea: from state-managed education systems to the market-managed; traditional school subject-based curricula replaced by competency-based curricula; academic qualifications integrated into unified forms of qualification frameworks; school achievement being evaluated on the basis of 'workplace demands'.

Finally, I also argue that human competencies by their very nature have 'double-bind' characteristics: They satisfy the partial conditions of knowledge capitalism; however, by their nature, competencies fail to satisfy the full conditions that are necessary to fulfill the capital accumulation process which is accomplished. By analyzing the hidden secrets of 'implicit knowledge' in human experience, I am going to reveal the 'dialectics of competencies' which will empower non-market human learning and help make human life and experience achieve a greater balance between work and life.

Commodification of Human Ability and Alienation of Learning

Capitalism as the Major Context

It was the Human Resource Development (or HRD) that led the concept introduced in this realm. While the HRD investigates the nature of human expertise and its maxim development, human competence is a "displayed characteristic of expertise, not the expertise itself, but very behaviour-specific, definable, and measurable subsets within an individual's domain of expertise" (Swanson, 2001, p. 238). If considering that current HRD presupposes capitalism and

market system as the fundamentals, the characteristics of the competence as of the *measurable*, the *definable*, and the *manageable* are directly linked with monetary forms of marketable goods or 'human capital' in a capitalist society. These traits define it as its 'form' of exchange-value, which is obtained by the characteristics of a commodity and traded in equivalent equations with monetary forms.

In fact, since the collapse of Eastern Europe, capitalism reveals itself as *the* dominant social mode of relationship that captivates the individuality in the social formation, in which the commodified market value turns most of the values in everyday life-world into a part of the system. Competence, in this particular context, takes the form of "commodified human ability". We call 'commodities' those things that can be traded, bought or sold in a capitalist system. The competence invented to represent the performance of capital accumulation, is put to the process of social exchange with salary, incentives, job status, and other informal rewards.

From Marx's perspective, individuals are social individuals and "are constituted or rather constitute themselves, as individuals of a particular sort through the social relationships in which they stand to other people. If individuals are social individuals, then the specific nature of their social relationships will be constitutive of the specific nature of the individuals" (Brien, 2006, p. 41). The relations between men in capitalist society, in this regard, turn out to be that of commodities, or as Brewer mentioned,

the economic relations between people are carried out by the buying and selling of things. Each individual is concerned only with the things that are bought and sold. The transportation of social properties onto material things is what Marx calls fetishism (Brewer, 1984, p. 26).

In this relation, human abilities bought and sold in capitalist market is concerned with the commodified things that can be exchanged in monetary form. Competence is converted into not only a capability to produce commodities, but also a *commodity itself*. The secret of competencies lies beneath the nature of commodity or capital, e.g. human capital, where the human ability is transformed and treated as a form of capital. According to Marcuse, "In capitalist society, labor not only produces commodities (i.e. goods which can be freely sold on the market), but also produces 'itself and the worker as a commodity'" (Marcuse, 1972, p.

10). The nature of the commodity of one's own labor does not come from the work conditions or low payment, but from the nature of the employment itself, or so to speak, from the way one becomes an object of exchange in a labor market and acquires the 'nature of commodities of oneself'.

The competence is a specifically trained part of human experience that expresses itself as 'purchasable goods', with a price tag in the labor market and exchanged with social rewards, not to satisfy the need of the learner but for the purchaser of it: on the one hand, the competence is a part of our experience, acquired by learning and doing, which grows or sometimes perishes in me. It is part of *me*, and as such, it holds my own subjectivity; on the other hand, the alienated nature of commodities in terms of competence mutates one's experience, being distorted from one's subjective identity and means that it is dealt with as a a form of capital, e.g. human capital or social capital. It obtains a monetary exchange value by qualifications and is traded in labor markets.

Learning as Commodity Production

Key issue here is a matter of alienation. The action of selling and buying is mediated by an absolutely quantified monetary form, e.g. a quantified form of money, in which the natural characters of subjective and personal dimensions diminish. Only the standardized exchange value prevails in this process. In this sense, the competence seems still part of me but only an isolated part of my experience, estranging oneself and waiting to be exchanged for other's desire. It goes to be estranged, like it exists outside of oneself, independently, as something alien, or even confronting us. As a term of human resource, competence is no longer the property of lived experience, rather it becomes a commodified experience that controls, estranges, or manages one's life. It is indeed a ridiculous experience, because, although exchanged in the knowledge market, it is still an embedded trait of human beings, not separable things from my body and mind.

To sum, competence by nature is destined to be detached from the subjective meaning scheme and only prepared exclusively for the purchaser's desire and identity to sell. As soon as one gives up one's subjective identity and meaning scheme for certain competencies, the commodified ability of competencies reifies the possessor, and learning to

obtain the competencies turns out to be a form of rote memorization and becomes an estranged experience detached from one's own life. The sole obedience, however, to other's desires comes from the characteristics of alienation that the relations of commodities bring. As Marcuse asserted,

The alienation of the worker in his product means not only that his labour becomes an object, an external existence, but that it exists outside him, *independently*, as something alien to him, and that it becomes a power on its own confronting him. It means that the life which he has conferred on the object confronts him as something hostile and alien. (Marcuse, 1972, p. 11).

or,

As a result of the 'alienation' of the worker and of labour, the realization of all man's essential powers becomes the loss of their reality; the objective world is no longer 'truely human property' appropriated in 'fee activity' as the sphere of the free operation and self-confirmation of the whole of human nature. It is instead a world of objects in private possession which can be owned, used or exchanged and whose seemingly unalterable laws even man must obey -- in short, the universal 'domination of dead matter over mankind.' (Marcuse, 1972, p. 6).

'Human resource' or 'human capital', in this respect, goes the same stream with commodified human competence, as more elaborated stage of its realization. At this stage, an illusionistic misconception takes the power. Just as a capitalist society presumes that "more competent workers get higher wages", so too are the exchange values of competence conceivably takes the reign of the capital, equivalent to material capital. According to Olssen,

Becker as a dominant Human Capital theorist, distinguishes two central aspects to such human capital: (1) inborn, physical and genetic dispositions; and (2) education, nutrition, training and emotional health. In this model each person is now an autonomous entrepreneur responsible ontologically for their own selves and their own progress and position. Individuals have full responsibility over their investment decisions and must aim to produce a surplus value. On his quotation, 'entrepreneurs of themselves'. (Olssen, 2006, p. 219)

However, the workers, though possessing high competence, cannot be autonomous entrepreneurs, or capital holders: because here the word *capital* merely operates as a metaphor.

It is necessary to keep in mind that 'capital' does not imply stand-alone wealth, like gold or silver, but wealth *put in the capital accumulation process*, which is controlled solely by capitalists. It is simply a mirage that human competence can be transformed into a capital asset. The value of capital or its surplus value can be realized only in a process of capital accumulation that exploits the 'competent' workers.

What Happens in Knowledge Capitalism?

Some key questions are waiting for us: more 'inbound' than 'outbound' questions, such as, what happens to our experience if we equip ourselves with such competencies? Where do competencies stand within the vast organism of human experience, and how is the previous *self* transformed by this equipment of new competence, or this commoditized form of human ability?

Until recently, most of the competence research focused on the 'outbound' aspects of human life, for example, what kind of human ability serves the needs of economic development and salary increases, etc.? However, the research did not raise any serious questions about the *self*. More inbound questions deal with *my* experience, for example, what kind of significant imbalances occur when certain kinds of competencies are secured in us? Put another way, what is the real meaning behind education when it seems to create a situation whereby learning experiences are equated with exchange values, where human experience is reduced to 'competencies', to be purchased by others, *especially in the knowledge capitalism*?

As Drucker mentioned in his article entitled, "From Capitalism to Knowledge Society", the Knowledge Society has double-bind characteristics: On the one hand, capitalism became 'The Capitalism - with a capital C' (Drucker, 1998), and the core of competence-driven educational restructuring seems unavoidable, something we simply have to live with; on the other, contradictorily speaking, the trait of 'knowledge' as a new leading resource of capital accumulation, fails to satisfy the conditions of traditional capitalism. In another article, I explained the paradox(Han, 2008, forthcoming).

Knowledge economists believe that the fundamental of knowledge capitalism consists of the two modes of knowledge, so-called, *explicit* and *tacit* knowledge (Allee, 1997; Wills, 1998). Explicit knowledge is 'knowledge as a

product' that can be stored and exchanged as a form of knowledge capital. Tacit knowledge instead is 'knowledge as process', learned and produced but not-yet-capitalized, so it is not tradable in any way (Burton-Jones, 1999). While explicit knowledge is possessed by companies in the form of intellectual property, copyright, or patents, or 'sold and bought' from the shelf of the market, tacit knowledge comes with the person who holds it. Quite different from explicit form, tacit knowledge continuously changes, grows, or is extinguished in one's experience. Considering that the 'beauty' of the knowledge economy discourse comes from the discovery of the hidden value of tacit knowledge and its supposed capital value, this non-tradability is nothing but a paradox of this theory, and it unsurprisingly considers the theory of learning economy in part.

Put simply, Knowledge Capitalism is a 'double-binded' with two contradictory trajectories. Knowledge, especially valuable tacit knowledge is the key part of expertise, which in turn cannot be fully objectified and transferred to acquire an exchange-value. Knowledge capitalism has the most important resource of production, knowledge, which by it's very nature fails to be entirely compliant in the game of capitalism. Competence, a human ability also exhibits double-bind characteristics: it should translate tacit human ability into quantified, exchangeable, and tradable values to fulfill itself as a form of human capital; it also has the paradoxical characteristic of human experience that cannot be fully translated into a commodity.

Competence-driven Education Reform in the Context of Knowledge Capitalism

Knowledge Capitalism

Knowledge capitalism, without exceptions, locates knowledge and human competence at the centre of the commodity exchange process (Burton-Jones, 1999). With regard to this, it is necessary to conceive that the newly emerging concepts of human capital, cultural capital, or social capital are nothing but the mutations of the knowledge capital. Until recently the term knowledge society or knowledge economy had been put to the main stage of debates. Now it is proper time to concentrate on the

characteristics of *new* capitalism, fuelled with knowledge and human competence as major resources of production: not only to understand the nature of knowledge economy from the eyes of capitalism, but also to understand the nature of *new* capitalism from the traits of knowledge and competence as the major components.

One salient characteristic is that the knowledge economy needs an ever more greatly expanded knowledge and learning market, where the learning economy (or learning society) becomes an essential engine for global knowledge capitalism. In this stream, the competence becomes a prime commodity produced and traded in the new forms of the market (Jarvis, 2007). In a traditional society, human learning was perceived as that of the non-market domain, in such contexts as within the family, community, nation-states, etc. Human labor was mostly conceived of as hourly based manpower, while 'ability' or 'talent' were not marketable concepts, unable to fulfill the role of being fully exchangeable in the market (see how the arts, literature, ideas and inventions have been treated in non-market oriented ways in the era.).

Under new trend of lifelong learning and learning economy as its foundation, 'learning' began to be perceived as main engine of new economy. As knowledge capitalism established itself, learning as a core processor of producing knowledge was transformed in the new matrix. Human abilities were increasingly 'processed' to fit into the labor market's exchangeability, directed to produce 'key competencies' that are recognized 'qualifications' as explicit value expressions. Now learning is re-designed to produce adequate responses to the specific demands of the business and service industry, or the knowledge economy in general: Learning market, learning industry, Learning welfare, and HRD that provide the key domains of the new superstructure of learning economy.

Background: Emergence of 'Flexible informality'

A society is maintained by the manipulation of the learning process of the members, in accordance with the social code of surveillance and discipline (Foucault, 1977). In fact, a holistic organic system holds many sub-systems that are interwoven, and learning as a sub-system plays the key role of managing and handling the societal learning of the members in a given society (Giroux, 1993; Goodson & Dowbiggin, 1990). The modern nation state has established

and managed the formal education system, authorized the uniquely sanctioned position to issue official diplomas or degrees, or otherwise mandated the official knowledge to learn(Apple, 1993). Formal education, under the auspice of the state, 'disciplined' the upcoming new generations with the 'disciplines'(=academic subject) (Young, 1998). Indeed the formal education system has been a pillar for sustaining it, along with the multi-layered cultural censorship systems, e.g. movies and publications, as like the textbook authorization process in the national school curriculum, a part of the process of selecting and screening socially approved knowledge, and putting it to the core of the societal learning management system.

Notwithstanding the economic correspondence theory of Bowles and Gintis, however, modern schools had little to do with what the current meaning of competence implied. What mattered at that time was to 'discipline the working class,' or put differently, 'reproducing the *relations of production* or class relations in a capitalist society, not the *forces of production* or competence in human labor. I will place the code of 'restricted formality' to refer to the mode of education at that time. Labor management by 'Fordism' in an industrial society in reproducing 'the relations of production', represents the restricted formality in education as a code of managing the process of social learning and knowledge at this stage.

However the new, rising megatrends, such as rapid technological innovations, post-modern arts and culture, post-industrial work management, an evolving knowledge economy, and a lifelong learning society, etc., have transformed the code of the education system tremendously. The exploding knowledge and its mantra of value acquisition has urged the dismantlement of the restricted code and has substituted it with the code of 'flexible informality' to promote the learning organization and the learning economy to further produce competencies as measurable forms of human resources.

This 'restricted formality' is symbolized by the uniform standards of social knowledge and enforcement at school. It was 'restricted' because knowledge was rigidly codified as 'selected academic subjects' in schools and the stratification of the school diploma classified the class structure of the youngsters. 'Official knowledge' was produced at 'official institutions' like universities and affiliated research institutes, where invented knowledge was again put to into the process

to be compiled to take the shape of 'official discipline and instruction'. The whole process kept rigidly to the characteristics of 'formality' with 'hard' subjects, licensed teachers, rules and regulations in schools, explicit evaluation and qualifications to disconnect it from other parts of nonformal and informal learning. It was not important to ask why but what to learn, since this knowledge was codified restrictively and the learning has exclusively dealt with the knowledge that guaranteed upward class mobilization. The notion of competence did not even exist in this context.

On the contrary, "neo-liberal projects for economic innovation and flexibilization" (Stevenson, 1999, p. 311) are moves which significantly change the fundamentals of the educational order (Field, 2002), especially from a school discipline-oriented education system to one of flexible lifelong learning. The technological explosion and the advent of the knowledge economy (Drucker, 1998; Senge, Kleiner, Roberts, Ross, & Smith, 1994) dismantled the school-centered 'restricted formality' and, therefore, schools surrounded by the knowledge of discipline had to find ways out of this transformation. The once useful 'restricted code' of social knowledge/learning management no longer advocated adequate functionality. The notion of 'disciplined knowledge' faced a new challenge. Instead, the new code of 'flexible informality' began to manage the field of social knowledge production and learning: More knowledge began to be produced outside academia, where discipline is no longer the sole method of 'processing' and 'packing' invented knowledge; The disciplinary rules or the unified code of knowledge is therefore dissolved and diversified, and the global economic environment has weakened the political publicity of the state, and the market-driven private realm has advanced to the core of social production and reproduction, instead. The shift from 'restricted formality' to 'flexible informality' reflects more of the invisible and implicitly useful knowledge which exists within the learning process; it is this which goes beyond the boundaries of the traditional subject-based education system.

Competence-Driven Changes in Societal Learning System

The dominant force of the societal learning system has been slowly re-located from the arena of state politics to that of market exchangeability. Until then, the territory of education kept a certain distance from the 'invisible hands' of the capitalist mode of production, although positioned as a part of it. While sometimes school credentials have been described as a form of pseudo-commodity (Hall, 1979; Liston, 1988), the game of education and the game of economics had been clearly distinguished, linked only with blurry connections for school to work transition, at least until neo-liberal social policies swept the world of social policies from the 1990s. Under this new trend, major social policies including education, medical services, and social welfare were re-directed to fit into this framework. It was the education sector, in particular, that was heavily targeted to re-formulate a new learning market as a major carrier of the emerging knowledge economy. The notion of 'competence' in this context had the spotlight.

Since the 1990s, the corporate and business sector began to adapt 'competence' and use it as a major parameter of practical performance, while educationists of the traditional pedagogy stuck to the notion of 'academic achievement' to demonstrate a learner's ability within a school setting. This dualism persisted as long as the two worlds of learning in 'childhood' and 'adulthood' functioned in an unconnected way, and the concept of competence partially represented the performance of adults who only engaged in work.

However, the lifelong learning concept began to prevail, and the two different worlds of learning slowly met in the early 1990s through the involvement of some intergovernmental organizations, such as the OECD. It was the DeSeCo project of the OECD in particular which introduced the concept of competencies as a universal standard for human achievement including academic and vocational, for the realms of childhood and adulthood, by encompassing the concept of 'lifelong learning and the learning society' that strongly linked school and work, academic subjects and work performance, and academic achievement of school subjects and the competencies of the workplace (Rychen & Salganik, 2003). Recently, the OECD has re-directed the flow of the measurement of international student achievements from the school-stand alone model (e.g. TIMMS) to the core competencies model (PISA and PIAAC) that linked academic achievement to competence in a school context.

As a glue to weld the two worlds together, the notion of competence worked as a double-edged sword: On the one hand, it symbolized educational innovation in meeting the new mode of production of capital; on the other hand, it took the role of a 'Trojan Horse,' dismantling the castle of the modern school and the fundamental meaning of learning at schools. As a new education matrix which combines global knowledge capitalism with lifelong learning, was expanding its sphere of influence, the notion of competencies or a stream of 'competence-based education' enters into the curriculums of primary, secondary and higher education. The notion of competence, in this context, had spotlight as a vanguard attractor to change the rules of the game akin to that of the capital accumulation process in education. Now, let me project the five mutually connected policies, easily observed on global scale recently, and put them together to help the make this obscure picture more visible.

First, as seen in the OECD's PISA or PIAAC efforts, competence was chosen as an attractor to measure and compare student academic achievements (OECD, 2002, 2004). Additionally, in the United Kingdom, New Zealand and Canada, competencies became a core feature of the national (or global, if putting it more appropriately) curriculum, by establishing national key competencies standards. This trend significantly undermines the strong foundation of a discipline-based school curriculum (Field, 2002; Schuetze, 2006).

Second, as the UK's white paper boldly asserted, output-oriented school policies were to replace the input-controlling school administration system. For the new requirement of minimum standards for graduation, the standard of competencies are presented as a major indicator to control the national education system under which non-traditional schools which had evolved differently are treated equally to the traditional academic school. *If standards are a constant, then everything else must be a variable*, and a list of standardized competencies becomes the sole constant that makes other factors variable.

Third, based upon the equivalent value of competence achievements, multiple dimensions of alternative qualifications are developed and slotted into the national qualification framework. Promotion of a non-traditional curriculum and an alternative credit award system are developed to make them contend with each other.

Four, greater interchangeability in the competence recognition system is developed so that it bridges the realms of vocational and academic credit (academic competencies are now interconnected with vocational qualifications).

Finally, the learning economy is expanded to support the knowledge economy in general. Education is privatized to be a part of the learning market; the welfare or workfare system turns its concern to the new form of welfare, 'learnfare'; The proportion of knowledge workers who mainly serve the learning industry exceeds the numbers of the traditional manufacturing workers; Now, and in the near future, the learning market will share the biggest portion of GDP. Learning itself becomes the largest market and industry that produces competencies.

In this context, diverse scenarios are possible related to the competence-driven education changes. For example, if competence achievement is the major key for controlling the quality of education, then the traditional academic subjects will lose their dominant position, since many other practical knowledge sets will satisfy the needs of the designated competence-learning frameworks. Schools will voluntarily adapt and develop new ecologically appropriate competence development programs outside the traditional subject teaching, which will result in the unified national curriculum being dismantled and diversified. Also, any traditional schools that fail to meet the competence output-requirements will find additional non-formal education resources (financial resources, professional support, or cooperative institutions to work together) to supplement the students produce better achievements, which will promote interconnectivity between previously stand-alone schools, making them, in effect, 'system-schools.' In that case, alternative schools will be no longer a 'marginal substitution' as seen by the OECD's 'Schooling for Tomorrow' project (OECD, 2004), rather, they will take a more central place in whole school ecologies.

On the one hand, this new feature will affect the given school system and make it more flexible and adaptable positively, to make them embrace the workplace/civil sectors' needs. Also, according to the standardized competence-based national qualification framework, non-traditional higher education systems, for example, the Credit Bank System, the Self-Examination System, Corporate Universities, and Cyber Universities can all play more main function in the acquisition of higher education degrees, alongside the traditional universities.

On the other hand, however, the demand-driven school reform will re-locate the whole education system in jeopardy. Academic achievement is no longer self-defined by the school and academic knowledge arena. Rather it will be under control of the demands of economic environment via the definition of competence, as both the barometer of work expertise and goal of school achievement. Also the characteristics of commodity production in human learning alienates both the work and learning processes.

Conclusion

The reason why we are concerned with the full integration of the capitalist mode of production into the education system is that, as Marx argued, the capitalist mode of production adds mystical characteristics to the elements, or transforms everything into something which is ultimately alienated, corresponding to the value of commodities, in that human ability also takes on the 'mystical characteristics' of mere commodities in itself. The nature of commodities is embedded in the mystical process of capitalism, and this is the very nature of exchange values and exchangeability itself.

In this article, I sought to analyze the meaning and implications of the notion of competence through a number of steps. First, I tried to analyze the negative side of the concept by employing Karl Marx's theory of capital. In specific, I highlighted the way that competence is not merely a particular *means* of producing commodities, such as knowledge products, but also a commodity *itself*. Additionally, I outlined the macro picture of the contextual shift in the education system from one which is state-driven to that of a global, market-driven one. Again, I located the concept in the matrix of knowledge capitalism and HRD industries, and derived a scenario of how the notion of competence will engender a macro education reform in the context of the learning society.

I believe, the research into competencies in the future should be balanced between the micro-level functional approach and the macro-level critical approach. Competence is not only a 'list of useful expertise' but also a keyword of many grand narratives that initiate the macro changes in education systems for the advancement of knowledge capitalism. It also contains within it a tremendous degree of practicality-it gives us a much needed critical perspective to understand the grand picture of the current changes within education, especially under neo-liberalism which promotes knowledge capitalism.

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