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# Aussie -Sino Studies

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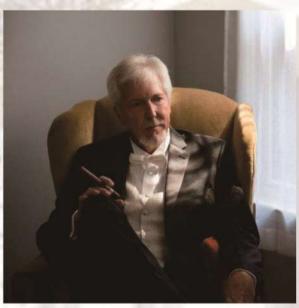
## A Profile of J. Conrad Guest



J. Conrad Guest is the author of eight novels. He writes about the universal ideals of love, loss, regret, and death—and the emotions associated with those ideals. A critic calls his work "Gritty, entertaining... real. Romance for the non-romantic."

Author of: 500 Miles To Go, Backstop: A Baseball Love Story In Nine Innings, Chaotic Theory, The Cobb Legacy, January's Paradigm, January's Thaw,One Hot January, A Retrospect In Death, and A World Without Music.

His first novel, January's Paradigm, was published by Minerva Press, London, England. Current Entertainment Monthly in Ann Arbor, Michigan, wrote of January's Paradigm, "(readers) will not be able to put it down." He has two other novels based on the Joe January



character, One Hot January and January's Thaw. Both are available from Second Wind Publishing.

In 2008 he completed Backstop: A Baseball Love Story in Nine Innings, which is available from Second Wind Publishing as well as from Amazon in both book and Kindle formats, and from Barnes and Noble (Nook). Backstop was nominated as a 2010 Michigan Notable Book, while the Lewis Department of Humanities at the Illinois Institute of Technology adopted it as required reading for their spring 2011 course, Baseball: America's Literary Pastime.

Chaotic Theory, a novella that explores the conjecture of how the flap of a butterfly's wings in Brazil might result in a tornado in Texas, is now available from Amazon in book and Kindle formats.

In April 2010, he completed his fifthnovel. The Cobb Legacy, a murder mystery that spans two centuries written around baseball legend, Ty Cobb, and the shooting death of his father by his mother. The Cobb Legacy is available for download for Kindle, Nook, EPUB, MOBI or in PDF.

Death is considered a universal ideal in fiction writing, so you'll want to check out A Retrospect in Death, which is now available from Second Wind.

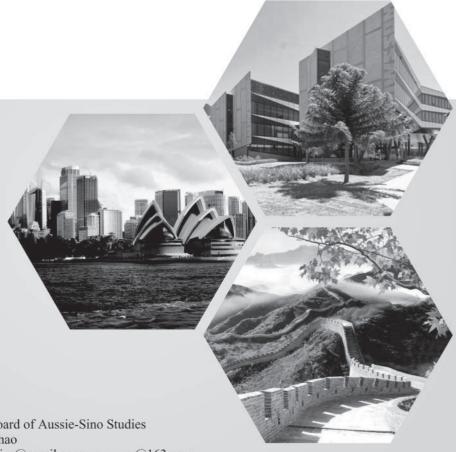
500 Miles to Go is set during the golden era of motor racing (the 1960s). The story follows young Alex Kr 61 as he seeks love while making his dream to win the Indianapolis 500 come true. 500 Miles to Go is available from Second Wind.

A World Without Music, speculative fiction set against a backdrop of romance, is available from Second Wind Publishing and Amazon.



# Aussie-Sino Studies

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## **CONTENTS**

Innovation, Human Capital, and Inequality  Allan C. Ornstein	1
Mother's Day: Coming to Terms with the Cruelty of Parkinson's J. Conrad Guest	10
Edna's Identity Evolution in the Awakening  Wen Qiaoping	14
John Wesley and Christian Leadership: Implications for the Ghanaian Church <i>Iddrissu Adam Shaibu</i>	19
On Ethical Guidance of Online Hot Words on Net-Mediated Public Sentiment Hu Qingqing	24
Examining the Effect of Taxes on Economic Growth: Evidence from Ghana Isaac Kwadwo Anim, Daniel Agyapong, Kwamena Minta Nyarku	29
Zhuzhou Urban Living Environment of the International Strategy  Jiang Difei , Huang Chunhua	40
The Divergence of the Chinese Football Culture from the Perspective of Game Theory <i>Li Pengcheng, Wang Yan</i>	43
Computer Assisted Language Learning: Esp Learners Attitude in Vocabulary Empowerment Ali Morshedi Tonekaboni, Maedeh Latifi, Fatemeh Abedini	48
The Cultivation of the Undergraduates' Soft Skills <i>Xu Xijun, Li Na</i>	53
The Impact of Class Attendance on Final Examination Scores of Yemeni EFL Student Teachers Mohammad Abdu Ahmad Al-Mekhlafi	57
Studies on the Thought of Education Modernization of Liang Qichao <i>Hu Huilan</i>	64
On Cai Yuanpei's Physical Education Ideology  Gao Xiong	68
An Examination of the Gender Disparities in Education: A Case of SSSCE Results Mireku Dora Animwaa, Christopher A. Okpoti	72
A Simulation on Welding Feed Table Base on NUC Control Algorithm <i>Wang Qi</i>	76
Does Lunar Cycle Affect on Egg Hatching and Moulting Frequency in Freshwater Crab, Barytelphusa Jucequemontii  Sudha Bansode	79

## Innovation, Human Capital, and Inequality

#### Allan C. Ornstein

(St. John's University, U.S.A.)

Abstract: The humblest and poorest in America have been able to lift up their heads and face the future with confidence. Since the rise of the common school movement, starting in the 1820s, the majority of Americans have increasingly relied on education as an integral part of this process of becoming. Regarding income, wealth and equality, three aspects are considered: first by choking the working and middle class—the populace or base that a democracy needs in order to function—second by reducing opportunity for most citizens because the income/wealth gaps are too wide to permit a level playing field and third by increasing the costs of goods and services which will make us less competitive with emerging nations such as China and India .These two countries are annually growing 7 to 10 percent while we are growing by 1.5 to 2 percent and are incrementally going to have a more competitive advantage because they stimulate their collective talent towards new ideas, new industries, and new markets; moreover, they have several technical universities that rival MIT and Stanford. The next big ideas are bound to come from young talent in Asia, from people with hard-to-pronounce names. Therefore, we have to get used to the notion that many innovative ideas in the 21st century will be coming from Eastern-rim nations.

Keywords: Innovation, human capital, inequality

As a nation, less than 250 years old, the humblest and poorest in America have been able to lift up their heads and face the future with confidence. Since the rise of the common school movement, starting in the 1820s, the majority of Americans have increasingly relied on education as an integral part of this process of becoming. The culture that evolved during the post-Civil War was sanctioned by Darwin's theories of natural selection and perpetual mutability. It fit well into the American faith in the doctrine of progress — where people could shape themselves. Little indeed was considered fixed or static. Here people could rise from their low station in life and move in one generation from an unprivileged class to a privileged class. The American style of capitalism that emerged permitted the bold, adventurous and more adaptable person to realize profits from the labor and sweat of the working class. It is this unrestrained form of capitalism that continued to enjoy some vogue in the later decades of the nineteenth century and into the early twentieth century, creating the bubble that led to the Great Depression. It is the same free market system, the false belief that the market can correct itself, which led to the bubble bursting again, 75 years later - and the deepest recession most living Americans have ever experienced.

Ordinary people, today, have to work two or more jobs and spouses need two incomes to keep up with a 1960s standard of living, an era portrayed by TV's popular

show *Ozzie and Harriet and Father Knows Best*. Back then, it took a sociologist (like Riesman) or psychologist (like Dr. Spock) to tell people what they were feeling. Now commentators like Lou Dobbs, Brian Williams, and Katie Couric report to Americans how they feel, how they struggle to make ends meet, and, even worse, how our jobs are being exported abroad (85 percent of our retail purchases is now manufactured overseas), which in turn compounds the imbalance of trade (cheap overseas labor markets entering as goods on the U.S. market). Moreover, the outsourcing of jobs is now affecting middle-class and white-collar employment as such jobs increasingly include the engines of the knowledge, technological, and digital economy.

#### Out Sourcing of Middle-Class Jobs

It started with a company named IBM in 2005, when it announced that it would shift 114,000 high-paying, high-tech jobs (paying \$75,000 or more) to India at salaries about one-fifth of those in the United States and Western Europe. Hewlett-Packard stated the same year it would lay off nineteen thousand to twenty-five thousand employees earning between \$50,000 and \$125,000, representing a savings of \$605 billion per year and build a new assembly plant in India. The next year Dell announced it would double the size of its software workforce in India to 20,000; it is also expected to shift tens of thousands of additional

**Author:** Allan C. Ornstein is a Professor of Education and Social Policy from St. John's University. He is the author of more than 60 books and 400 articles. Ornstein's latest books from a trilogy framed around the themes of globalization, technology and inequality: Three major trends shaping society in the 21<sup>st</sup> century. The books are *Class Counts: Education, Inequality and the Shrinking Middle Class (Rowman & Littlefield, 2007); Wealth vs. Work: How 1% Victimize 99% (Author House, 2012); and Excellence vs. Equality: Can Society Achieve Both Goals?* (Paradigm Publisher, 2015) The website—allanornsteinbooks.com—details the trilogy and latest book (which this article is partially based on).

jobs once it set up a new manufacturing site in the country.

By 2010, similar announcements had been made by Cisco, Intel and Microsoft, the engines of the technological future, which planned to double and triple their workforces in India. Cisco and Intel each planned to invest more than \$1.1 billion in India, and Microsoft is investing \$1.7 billion. Apple, Boeing, Ford, G.M., and Motorola were right behind these high- tech companies, opening up new factories outside the United States, in China and the Asian rim to save money. Even our old enemy Vietnam is on the radar screen for billion-dollar investments by high-tech firms such as Intel and Hewlett-Packard. Microsoft has also opened up a software center in Canada because of liberal immigration laws which make it easier to recruit qualified people from around the globe.

Amid all this gloom, there are glimmers of hope that U.S. industries are considering to bring back manufacturing jobs to the U.S.—led by a \$100 million investment by Apple to produce some of its Mac components and \$1 billion investment by G.E. to build an appliance assembly plant. Apple's iPad and iPhone products which amount to 70 percent of its sales continue to be made in China, mostly at Foxcomm, the largest factory in the world. Actually a \$100 million for Apple is like "a drop in the bucket," but optimists feel it's a start for "reshoring" jobs after decades of shipping them overseas.

Although many reasons are given for "reshoring" jobs, a primary factor is that the unions have lowered their expectations, as have the labor force in the U.S. Salaries and benefits for new factory workers are about half the pre-1990 scale - a major factor for growing inequality within the country. But it can be argued that the damage is already done: So much of the manufacturing and high-tech knowledge has been lost to Asia, not to overlook the millions of jobs which have also disappeared. The bottom line is that today most high-paying jobs in the U.S. are created by high-tech, innovative companies, but they are still being shipped overseas where stem workers are paid 25 percent of their American counterparts. Moreover, many of the new, high-profile manufacturing jobs utilize robots and thus displace workers; technology, today, is not limited to only replacing unskilled labor, but now includes replacing skilled workers.

The outsourcing of jobs is bound to worsen if America's immigration policies are not softened. What we need to be doing is increasing student visas and paste green cards to science and engineering diplomas, so these qualified people become part of our economy, rather than losing them to another country and then having to compete with them. The ripple effect of these investments in terms of future science, research and technological jobs is

estimated to create four times more the number of initial jobs. In other words, jobs create other jobs, and science and technology jobs have a fourfold impact in a growing economy—and the impact continues to multiply so long as there is a healthy growth pattern.

The fact is that nations are no longer able to isolate themselves and pursue policies that are incompatible with an increasing global market. The types of jobs and services that generate economic wealth for nations are more mobile than ever, based more on a broadband and Internet connection than geography, and policies that shackle international business hinder economic growth. With globalization, the average U.S. worker is exposed to much more competition and job insecurity. As the world becomes more globally interconnected, jobs became more mobile. Hence, the jobs at home that have become more plentiful are for less educated, displaced, or part-time workersmostly low-paying jobs such as "hamburger helper" or Wal-Mart hostess (also called a "greeter"), which on the pay scale of one to ten (ten being the best) is a one or two. This is the future for our children and grandchildren unless we do something about it now.

#### The Global Village

According to Michael Mandel in *Rational Exuberance*, globalization and technology are coming together and creating the potential for future work and where we work. Off shoring jobs, for example, means that knowledge/information work can be broken into smaller tasks and redistributed around the world. Someone in Bangalore or San Paulo can do one aspect of the work, and someone in Hong Kong or Helsinki can perform another part of the job. Moreover, the internet has enhanced all means of communication, creating "virtual worlds" and transforming the place of work and the speed of innovation.

For global corporations, the trend is to avoid bodies and offices in selected places like Silicon Valley or Shanghai. The idea is to get workers to collaborate instantly around the world. The typical hierarchical organization, with layers of management, has shifted to multiple sites, with an ever-shifting network of employees who work on a team for a single project and who communicate through e-mail and videocoms. Such corporations now hire people from around the world and then offer courses online to develop talent. People can obviously be hired in any part of the world to do the same work an American engineer or accountant can do—and for considerably less than the American salary. President Obama put it this way: "A child born in Dallas is now competing with a child born in New Delhi."

The "gathering storm" or economic demise of

American innovation and knowledge is gaining momentum. American students are unable to compete on international tests in science and math, U.S science and engineering enrollments are down, the recruitment of top students from abroad has dramatically declined due to visa restrictions following September 11, and the world playing field has been flattened and made more competitive by the Internet. U.S. knowledge, information, and technology jobs, and other knowledge producers whose job is digitized, can now be replaced by a Google-ready or Windows-ready worker anywhere. Our children can only thank us for making it easier to communicate to the unemployment agency or finding some underemployed job via the Internet.

Skilled manufacturing jobs, once the backbone of the U.S. economy and the reason why workers once rose to middle class in America, has collapsed. In the last 12 years (2000-2012), we have lost some 5 million manufacturing jobs. Now one of the last two remaining industries that America is still in a leadership role, that is knowledge and technology, is on the downward slide. Its decline is highlighted by the fact that American values crumbled in the twenty-first century. Rather than investing in long-term products, services or technology, and related innovations that would benefit the nation and its people, short-term profits and reckless gambling and risk-taking became the norm. The outcome was the dot.com bubble of 2000, followed by the worst financial crisis in 2008 since the Great Depression.

Instead of venture capital coming after a product goes through research and development, the U.S. financial world threw money at Silicon Valley and the Golden Triangle. The money came first, instead of product or thing being made coming first. There was nothing being made, only fees being charged under the guise of "financial products" which helped create the economic meltdown, costing some six million jobs, the shredding of pensions and 401Ks, as well as the evaporation of trillions of dollars of U.S. wealth.

If you believe that the economy is interconnected, and every worker is a consumer, then all major sectors of the economy affect the American standard of living. Upheaval in knowledge and technology effect suppliers, producers, and customers—one big ripple effect—which in turn effects unemployment and housing values, then the retail industry, which subsequently effects the price and production of commodities and those related jobs—and so on. Even more disturbing, we have a growing number of unemployed, underemployed, and temporary, college-educated workers (totaling nearly 50 percent in 2012) competing for fewer good-paying jobs in the U.S. When adjusted for inflation, the real salaries of U.S. workers with

at least a bachelor's degree has remained flat from 2000 to 2010, an unpleasant dose of reality in a society in which education is supposed to be the key to success.

Prior to 2000 expansion in technology and information- related jobs raised the income for those with sufficient skills and education to handle complex jobs. Those with minimal skills and lower levels of education did not benefit or receive income gains related to American productivity; the collapse of manufacturing and the union movement was a big part of it. But the resulting inequalities between the rich and rest of the nation was slightly masked by an increasing number of people receiving higher education degrees and moving up the wage ladder with good jobs. Now that outsourcing of high-tech and middle-class jobs are beginning to impact on the U.S. economy, we can expect increasing inequality in America unless the tax system is modified.

Beyond flattened salaries for people with college degrees and having our knowledge and technological jobs moved overseas, we are beginning to witness large movements of skilled workers crossing national borders in Asia and Europe, providing a hint of an increasing interconnected world and global economy. The question arises: Are we witnessing the beginning of a new world of empowered and mobile workers or a "brave new world" of virtual sweatshops—where multi-national corporations are able to depress employee wages? The emerging workplace is bound not to be a factory or assembly line, but don't expect it to be a place where the salaries of college educated or middle-class workers will keep up with inflation.

Hence, we are beginning to witness a growing number of ambitious and intelligent students purposely dropping out of college (called "hacking" higher education): Viewing it not as a failure but as a sensible option. Inspired by an early generation of successful college dropouts like Michel Dell, Bill Gates and Steve Jobs, and now by Kevin Ruse of Digg, Evan Williams of Twitter and Mark Zuckerberg of Facebook, the thinking goes "why pay money, or worse go into debt, if I can make money." "I can make millions by creating an app or producing a computer game before someone else comes up with the idea."

Popular culture is portraying self-made high-tech millionaires who reject the "safe route" of a college education akin to going out west 150 years ago to strike gold. Given this new view, college dropouts in the tech world are considered "free thinkers," "risk takers," and "innovators." They have not been tainted by groupthink, conforming rules, or corporate restraints. This type of thinking is highlighted by the likes of Michael Ellsberg's *The Education of Millionaires: Everything You Won't Learn* 

in College: About How to Be Successful. It's reinforced by other academics (namely critical theorists) who question the value (or cost) of a college degree, compounded by mounting student debt (\$1 trillion as of 2012), as well as by a growing number of middle-class jobs being down-sized or outsourced. The problem is, however, without a college education the vast majority of youth would be unable to compete for decent jobs. The "whiz-kid" entrepreneur or innovator who drops out of school and "hits it big," making millions or more, is statistically pretty close to one out of a million.

#### The Role of Innovation

Innovation is not invention, the latter which suggests a new paradigm or major shift in our thinking or production. Innovation is based on a spark or insight often derived in an office or research lab (or in the case of Steve Jobs in a garage), and represents a modification or improvement of an existing service or products which (1) creates value, (2) is brought to the market, and (3) boosts productivity. The overall effect is the creation of new jobs and even new industries. Innovation represents 20 percent of the economic output of the industrialized countries, supplying efficient products or services and economic growth. Innovation is part of the "knowledge" society and a nation's human capital; it is bottomless and limitless compared to economic capital which has a bottom line and limitations.

To be sure, innovation and entrepreneurialship are mainstream, embraced by all political stripes and popular and business heroes like Steve Jobs, Richard Branson, and Jack Welch. It wasn't always like that. Writers for the last sixty years have described the shift in culture in terms of the "organization man", "future shock", "the greening of America", etc. *The Organization Man*, described in William Whyte's best-selling book of corporate America, was a cousin or off-shoot to David Riesman's book. Published three years after the *Lonely Crowd*, both books described the "successful" corporate model, of people keeping their nose clean, following orders, and conforming to company rules and group norms.

Successful business people were not risk takers, innovators, or explorers. Knowledge workers sought a "good" job at IBM, AT&T, or G.E., and they relied on a combination of hard work, merit, and social skills. They dressed the part, with gray or blue suits and matching ties, and followed the expectations and preferences of their bosses; they had no interest in being too smart, "thinking out of the box" or creating a new idea or image. Innovative personnel were considered disruptive and not part of the team. Economists focused on traditional factors related to

production — capital, labor, and equipment — and supply-demand curves. New ideas and copyrighted materials were not considered part of a company's financial statement or list of assets.

It took several decades for the informal atmosphere, combined with rewarding the creative talents of workers in Google, Facebook, and Wipro, to become an acceptable choice for other companies around the world. The current buzz involving innovation is based on a loose federation or network of corporate labs, government-sponsored labs and universities. Corporations often become the core and implementer of new ideas from outside and inside corporate gates. They rely on the world-wide web for collaboration and communication, and they can integrate others' work around the world.

The spirit of innovation and entrepreneurship, what the economist Joseph Schumpeter once called "creative destruction", has been embraced by U.S. business colleges, corporations, and governments. Schumpeter was one of the first theorists to recognize that the most important competitive factor was not lower land prices or labor costs but new ideas—what I refer to as human capital and what corporations and business pundits call part of innovation (and entrepreneurship). The story of the U.S. conversion from conformity to creativity in the workplace is evidenced by the number of endowed chairs of entrepreneurship in the U.S. business schools, from 237 in 1999 to approximately 600 in 2010.

For traditional knowledge workers, innovation is considered part of the R&D spending and product development. In today's fast-changing society, innovation is considered the early stage of entrepreneurship and what may be called "innovation economics". And, it does not take a rocket scientist to figure out that more people around the globe are engaged in new ventures: From the slums of South Africa and Indonesia, to the bureaucrats in Deli and Shanghai, to big companies like Apple and 3-M. Given today's global competitive spirit and quick access to information, many corporations now feel they must innovate faster just to stand still. In fact, every large (and every old) corporation today—the Wal-marts, McDonalds and GM's of America must adopt technological and innovative policies to compete on a national and international level. If they fail to do so, they are forced to downsize or reorganize, or even worse to disappear.

The U.S. still leads the world in innovation, having spent approximately 10 percent of the world's \$600 billion R&D in 2012 followed by the European Union which spent about 6 percent. Part of the reason for the U.S. lead has to do with its multiple sources of financial markets and venture- capital companies as well as the American spirit

of risk-taking, the spirit of freedom, and spirit of individual achievement. Creative and innovative people need this open type of environment to stimulate, motivate and sustain their fresh thinking and human endeavor. So far America is ahead of the curve in terms of creating an atmosphere conducive to risk, freedom and achievement. What we have going is a culture that celebrates individual achievement and operates within a political and social atmosphere of freedom. Its universities are first rate and the nation as a whole has a long history of venture spirit capital and entrepreneurship that goes back to the Manifest Destiny and the "winning of the west".

European universities tend to be suspicious of private industry, relying more on government grants than private sector money. However, European venture-capital companies have adopted the American model and investment in new companies grew 23 percent between 2003 and 2006, and 15 percent between 2007 and 2010, compared to less than one percent per year in the U.S.—meaning we have reached a "flat" period of innovation. Countries such as Denmark, Finland, Germany, Sweden and England, often criticized by American capitalists as too socialistic, have had more venture-capital industries in relation to the size of their economies than America.

For all its economic problems however, the U.S. still leads the world in new start-up businesses and entrepreneurship-producing approximately 5 million new small businesses every year - some of them, rapidly growing into the world's largest corporations such as Microsoft, Amazon, and Google. As many as 22 percent of the nation's Fortune 1 000 or biggest companies were created since 1980, illustrating the nation's continuous gospel of innovation and prowess of human capital. In a nutshell, given the last page of facts and figures, all these numbers suggest that American entrepreneurship is still very "venturesome", but it is beginning to flatten visa vie other industrialized nations. The reason is not necessarily because the flow of money has declined rather because the U.S. companies are moving offices to other parts of the world.

Innovative businesses are also beginning to tap into emerging markets. China and India which spent less than 1 percent of the world's R&D in 2006 are now beginning to become innovative out of necessity. Globalization and the spread of the internet and technology have led to the spread of information and creation of new business models in Asia. Whereas originally noted as "copycats" of Western intellectual property rights (which cost Microsoft alone an estimated \$100 million per year from 2008 to 2012, they

are now moving into the innovative process in the (1) drug and pharmaceutical industries, (2) motorcycle and auto industries, and (3) electronic and communication industries—forming multinational companies and reaching markets in emerging countries in Latin America, Asia, and the Middle East.

In the meantime, some of us in the U.S. are rejecting globalization and turning inward—questioning the idea of free international trade, talking about imposing import tariffs, viewing China's economic growth as a threat to our well-being, building fire walls to protect our banking, utility, and military systems from computer hackers, and describing the origins of the 2008 recession in global terms or as a conspiracy between international corporations and international banks. <sup>®</sup>

Although we may not fully understand all the connecting components of globalization, or how to manage the massive amounts of data, globalization is here to stay. Every time you Google, tweet or text, every time you use Facebook, Amazon or e-Bay, every time you use your credit card, cell phone, iPad or GPS—what you are doing is connecting and networking on a global system built by U.S. innovation and entreprenrialship. Regardless of our location—some rural town in Louisiana, a mountain village in Montana, or on Fifth Avenue in New York City—it's a system that permits us to connect from anywhere on the map to the rest of the world.

#### China and India—and the Future

While most of China's and India's innovators are not well known in the West, they will eventually challenge American human capital in the three aforementioned areas of productions. For example, India's Tata Motors is producing a "people's" car for \$3,000, partially out of necessity, and China is boasting it will start manufacturing 500,000 electric cars by 2012—also out of necessity. It is also already producing clean-coal plants to cut down pollution in its cities. In the meantime, the U.S. is still debating whether it should drill for oil off shore. More troubling, there are over 500 computer chip companies in China, ready to challenge Motorola, Cisco, and AT&T.

If I had to bet on China or India, I would put my money on India. Comparing China and India, the human capital of India is young compared to China's population which is aging due to restrictions on family size and children. In 2010, India's 14-year old or younger

<sup>&</sup>lt;sup>(1)</sup> Ornstein, Wealth vs. Work.

<sup>&</sup>lt;sup>®</sup> See Joshua Cooper Ramo, "Globalization Goes Backward," Fortune, December 3, 2012.

<sup>&</sup>lt;sup>®</sup> Japan and S. Korea are expected to produce 1.5 million hybrid or all-electric cars by then – compared to North America making 265000.

population was 31 percent of its total, compared to China's 14-year old or younger population which represented 20 percent. The outcome is that India with its 1.1 billion people and capitalistic spirit, represents the greater competition for America's human capital and potential for innovation than does China. The Chinese economy is based on manufacturing, a twentieth century model, not scientific or technical knowledge (India's prototype) which is a twenty-first century model. Actually, a few U.S. economists are concerned about the rise and potential of both countries—and future competition with the U.S..

Now here is where I step in quick sand and voice an unpopular and controversial position for which my liberal colleges and readers may label me as bigoted or ethnocentric. I am inclined to wager my money long term on India, not on China, because the Indian education system is rooted in the Anglo-American perspective which puts a premium on creativity, inquiry and independent thought. The Chinese schools prize memorization and rote learning, an ideal that can be traced to a series of forty dynasties spanning more than 4 000 years, beginning with the Hsia dynasty in 2200 BC and ending with the Manchus in 1912 in which bright students studied diligently to pass a series of civil service exams in order to become scholar-officials and bureaucrats who governed China for the emperors.

The Chinese heritage has revealed persistent efforts to maintain unbroken traditions and cultural continuity, relying on respect for elders and old customs, and further promoted by the teachings of Mao up to Tiananmen Square just twenty years ago, whereby students were required to memorize and parrot the wisdom and thoughts of their leader. This type of thinking still characterizes the Chinese academic model in which conformity is crucial and questions by students are frowned upon in school because of fear of appearing stupid in front of classmates.

The teaching-learning process in China is not conducive for scientific, high-tech and innovative culture. The

knowledge society we live in does not reward facts or trivia data that can be googled. What, when, and who questions and answers foster memorization and characterizes Chinese education; it is mistakenly assumes that people who know the answer are intelligent. Why, how, and what-if questions and answers lead to abstract thinking and discovery; it characterizes higher education in tier 1 colleges in the U.S. and other Anglo countries, as well as India whose schooling system is based on the British model. Chinese education authorities, with the approval of the central government, are just beginning to challenge traditional educational methods and study the U.S. and British education models, but they still have a long way to go in order to overcome 4 000 years of isolated history before they can laud the innovative mind.

But wizened old men realize the value for caution. The Western mind doesn't fully understand the Eastern mind, and no matter how naive or immature we think the Asian perspective or philosophy, they know us better than we know them. Given a rapidly changing society that we live in, the future isn't what it used to be or expected to be. Therefore, everything I say about the Chinese and Indian mind and the spirit of innovation or discovery is nothing more than speculation that can be proven wrong by the winds of change (Chinese reform or Indian mismanagement) — and by a series of unspoken and unforeseen coalition of events.

Curtis Carlson, the co-author of Innovation captures the trend and puts it in blunt terms. "India and China are a tsunami about to overwhelm us." Millions of jobs are at stake and many are expected to be eliminated in the U.S. As Asia moves to a global center for innovation and new knowledge, most people in the U.S. are struggling to understand what is happening to the nation's economic luster and their own jobs. Are we on the way of the dinosaur—big, old and clumsy? As a nation are we on the downside of Darwin's theory of adaptability? We need to come to the realization that the emerging nations of the world will increasingly share economic power with the U.S. The hand writing is already on the wall. The ordinary person in America will have to adjust to a lower economic position on the totem pole of mobility, opportunity and status.

The "copycat" stereotype of Asia is vanishing. The number of engineers annually being produced by India (350000) and China (600000) outnumber the U.S. (70000) by 5 to 8.5 times.<sup>®</sup> This difference is bound to accelerate the rate of innovation (and growth of middle-class jobs) in

<sup>&</sup>lt;sup>(i)</sup> See *World Fact Book* (Washington D.C.: U.S. Government Printing Office, 2010).

But there is a flipside or softbelly to India's future growth and that flies in the face of its prospective superpower image. The country is beset by an entrenched smug elite, tied to a caste system and perpetuated by centuries of racism and injustices. Notwithstanding the enormous economic gains made by India, far beyond even what optimists would have predicted a few decades ago, the country is flawed by the dust heap of custom and tradition. It's history (and current policies) is plagued by the brutal methods of the police, unethical practices of business people, payoffs and favors expected by an army of government bureaucrats and regulators, and a slow-moving, class-biased judiciary system—all which currently vye to slow down India's economic miracle.

<sup>&</sup>lt;sup>®</sup> See Micheal I. Casey, *The Unfair Trade* (New York: Crown, 2012); Aman Sethi, *A Free Man* (New York: Norton, 2012).

<sup>&</sup>lt;sup>®</sup> All of these countries consistently out score American students on international tests in science and mathematics.

these two countries and challenge Silicon Valley. Figuring a four to five year lag between the birth of an idea—from a computer model or experiment to research and development and then to production—in the next ten to twenty years the U.S. is going to wake up and find out that the low-paid, low-quality Asian worker has been relegated to the heap pile of history and replaced by a freewheeling, innovative workforce. The likes of Apple, Cisco, Hewlett Packard, Intel, etc. are going to experience major competition from China, India (and even Taiwan, South Korea, Japan, Singapore, etc.).

Americans will find the new Asian innovative models of growth and productivity possibly more threatening than the current demise of the U.S. manufacturing model—and the shredding of millions of more jobs to overseas competitors, with names we cannot pronounce and a culture and language we don't understand and never bothered to understand.

The only way to reverse this growing trend is to stop the erosion of U.S. innovation by (1) improving math and science education, (2) offering scholarships or free college education to math and science teachers, engineers and scientists, (3) welcoming more talented immigrants and promoting their citizenship, (4) linking start-up companies with venture capitalists, (5) offering tax incentives to U.S. companies that invest in innovative products and services, and (6) discouraging or preventing the likes of Cisco, Intel and Microsoft from building new research facilities and offices in Asia or Eastern Europe. Dean Kamen, a college dropout, author and inventor who holds some 450 U.S. and foreign patents for innovation devices puts it this way. "We can print more money, but we cannot print more knowledge." That takes a generation to produce, some 12 to 16 years of schooling. More bailouts might help the economy in the short run, but only more people like Bill Gates and Steve Jobs can move us into prosperity over the long run.

In the U.S., the pressing need is to focus on talented students and math and science education and other innovative capacities (recommendations 3 to 6) in order to secure America's future prosperity and security. Here we are not talking about a new paradigm or transformative shift in society. What we need to do is to invest in incremental charges, more efficient-technology, and new industries—steady progress and development of ideas and human capital. In the final analysis, a nation is only as good as its next innovation. Transformative changes come in cycles and over several generations and cannot be easily predicted or counted on, unless you believe in a constant flow of "Sputniks". The last major paradigm shift had something to do with computers and the Internet. Unless

someone has a crystal ball or a direct link to the Oracle, no one really has a clear idea when the next major shift or invention will take place.

As for developing countries, the situation for women is dim and there is need to broaden their basic rights, including access to education. However, the list of problems include basic security issues—sex trafficking, child marriage, domestic abuse, gang rape as a military tactic, malnourishment, lack of medical care and maternal mortality. The key to fighting history is to stop ignoring the custom of devaluing women and to promote the education of women. If the third world is to prosper, the status of women must be improved for they represent 50 percent of a nation's human resources. Education can chip away at cultural practices in many parts of the world, and the outcomes are tied to economic growth in a knowledge and digital society.

#### **Growing Inequality in America**

As a capitalist society, the laws of economic individualism, competition, and achievement overshadow an economy based on safety nets and social programs, protection for workers or in which the free market is to be subordinated to the group. Although the natural law of competition is sometimes hard on the individual, the old-fashion capitalist might say: "If the strongest and swiftest win the race, and the rest falter and barely make ends meet, we may be consoled by recalling the sage advice of Shakespeare: 'The fault, dear Brutus, is not in our stars, But in ourselves, that we are the underlings.'"

The justification of U.S. inequality has been delineated since the birth of the nation. Going back to Alexander Hamilton, the first U.S. Treasurer, he felt the masses rise to the level that nature had intended and possess all the turbulent passions of an animal. The manufacturing and banking class were guardians of the public good, elevating society by providing people with opportunities to work in factories. The government had to support these economic elites and protect them from the influence of the labor class and "Jacobins" in the populous American towns.

More than two hundred years later Milton Friedman, another conservative pundit, argued that small government was the best government, since the big government jeopardizes individual liberties, especially property rights. Competition is the engine that drives the economy and inequality is the natural outcome when society allows individuals to compete and find their proper level and learn how to do that for which they are fitted by nature and nurture, as well as choice.

As capitalist doctrine has evolved, people are by nature

unequal. Those who take risks, prove their ability and take responsibility, compete and excel, overcome obstacles and get ahead—are thus entitled to the rewards that may come from their efforts. Two classes of workers emerge within the capitalist system: *Performers* who entertain the public and generate *profits or revenues* for a business or corporation and *salaried employees* such as professionals (teachers, engineers, and accountants) and laborers (plumbers, hotel workers, and janitors) who are considered a *cost factor* or *expense item* in determining annual budgets. The goal of an organization is to keep costs down and maximize profits. For those who increase costs, the idea is to trim their salaries by considering supply-demand trends and eliminating jobs. Those who can bolster revenues or the profit column are paid handsomely for their efforts.

According to Forbes, in 2012, entertainers such as Taylor Swift earned \$57 million, Roger Waters of Pink Floyd made \$88 million and Hip Hop producer Dr. Dre made \$110 million. Ball players such as Roger Fedorer (tennis), Tiger Woods (golf) and Lebron James (basketball) each earned more than \$50 million, while Floyd Mayweather (boxing), currently incarcerated, earned \$85 million. Tom Cruise and Sylvester Stallone each earn \$15 to \$25 million per movie. All of these people are brand names who perform for the public and realize profits for corporations.

In 2012 the average worker, a cost factor, earned approximately \$36000, while the average teacher earned \$55000 and the average engineer was compensated with \$80500. Now compare these salaries with CEO's from the 200 largest companies who for the same year averaged \$11.7 million, and those from the top 50 companies who averaged \$20 million. On the top of the list, according to Forbes, was Stephen Hemsley (United Health) at \$102 million, Ed Mueller (Quest) at \$66 million and Robert Iger (Disney) at \$53 million. Ironically, the runaway salaries of top executives have little to do with performance, since many of the companies that paid the highest salaries often lost money that year.

The problem of the often overpaid, incompetent executive is especially upsetting when the rewards are subsidized by the U.S. taxpayer, including the single mother or typical laborer who works multiple jobs to make ends meet. It doesn't only occur when the feds bailout Wall Street. If executives, entertainers, and athletes are making millions of dollars, it has to come from someone's pocket; this is reflected in inflated prices for rock concerts and baseball tickets and depressed salaries for the average worker in the organization which pays high executives salaries, since there is a limit or percent of the firm's net revenue that goes to compensation and benefits for all employees. If we start adding up the ramifications of all these overpaid executives,

there is more than a whisper of public frustration, not yet a shout, to put a lid on executive compensation and to improve the links between pay and performance.

What these kind of disparities create is a new group of "haves" and "have nots" within the nation, based on a flawed capitalist model that rewards those who make money for an organization and penalizes those who cost money for an organization. There is no sound reason to promote or defend this system of rewards other than some illogical reasoning based on greed and stupidity or some quaint notion that capitalists (now including brand name performers) receive their fair proportion from corporate profits while wage earners can enjoy a day at the beach on Sunday for free or a fishing vacation in some remote part of the country on the earnings of a week.

It's the Roman Empire again — with highly paid gladiators who entertain the audience—coupled with the "robber barron" era again with all restraints vanished. The key question is whether Roger Waters is worth 1600 times more than what a teacher earns or whether Lebron James is worth 625 times more than what an engineer earns, or whether the average large company CEO is worth 325 to 555 times (based on \$11.7 or \$20 million average salary) more than the average worker, (based on \$36,000 average salary). Your answer probably depends on whether you believe in the free market system or some form of government regulation. It also reflects your views on human capital and the value you place on labor vs. talent.

Let me state it in slightly different terms. Should Master Card's Robert Selander have received 287341 shares of stock for free on the day the company went public, worth \$13 million two weeks later, while each of the company's \$4400 employees received 100 shares, worth \$4700 for each employee. Is one person's value to a company worth 2766 times more than the average worker in the same company? <sup>©</sup> These monetary conditions lead to immense disparities and are symptomatic of the problem inherent in this capitalist system and the subsequent problem of inequality facing the nation.

Allow me to frame the economic issues in moral tones. Consider that the average salary for the top 25 hedge fund managers was \$1 billion in 2009, sometimes only with single digit returns. The total, \$25 billion, was equal to what 500,000 of the nation's 2.8 million teachers earned the same year. Here is a pop quiz! Should 25 people who move money around with a mouse and produce nothing, and at worse played some role in the economic meltdown

<sup>&</sup>lt;sup>©</sup> At the beginning of 2013, Master Card stock was selling for more than \$480/share. Selander left Master Card in 2010. Assuming he did not sell any of his stock, Selander's net worth would have appreciated to more than \$480 x 287, 341 or some \$13.8 billion.

of 2008 (which cost tens of millions of Americans to lose their jobs and/or homes), earn the same amount as a half million teachers who perform an essential service for the nation. Is one person worth 50,000 times more than another person?

We need to wrestle with these issues — and not pooh-pooh them away as part of the capitalist system. It is our teachers, scientists and engineers, and other knowledge and high-tech workers that will save this country, not the hip hoppers or rappers, not our athletes or entertainers, not our hedge-fund managers. In a fair society or good society, if inequality of income persists, it should be based on how much value a person's work is for the common good. The question then arises whether a teacher's or engineer's service is more valuable than someone who can sing songs or hit a golf ball 500 feet.

What we need to do is find ways to reduce existing inequality. There is a lot we can do that is easy to implement regarding education, social security and health care. Canada, Australia, and many western European nations spend up to twice as much as we do on social programs and safety nets. Why should entertainers, sports figures or CEOs in the U.S. earn \$50 to 100 million? Why should hedge fund managers earn a billion dollars or more? Why do the American people allow it? To be sure, there comes a point where financial rewards become irrational, based solely on profit motives as opposed to value for the common good.

Despite the titans of industry, the wizards on Wall Street and the disciples of Ann Rand who believe that "greed is good", in civilized society the test of restraint, balance and fairness are needed to protect all the "slow" and "average" runners of society. Here we are talking about welfare receipts, sick people, disabled people, unemployed people, retired people, elderly people, mentally challenged people, and the working poor—what was once called the "silent majority" and now the "moochers." We fail to consider reality: All the human tragedies taking shape and tightening its grip on American society.

We are talking about millions of individuals and families in America living on the threshold (±) of poverty — lost jobs, lost homes and lost dreams. Michael Harrington described them as The Other America. Charles Dickens in Hard Times used darker tones to describe this low-paid, industrialized work force. Indeed, today, we have the largest percent of low-paid workers within the industrialized world, about 25 percent, according to the International Labor Organization. In this connection, the rate of unionization continues to fall, from a high of 35 percent prior to 1980, when President Reagan crippled the

air controllers union, to fewer than 7 percent in 2012.<sup>10</sup>

Proponents of the system rely on free-market and trickle down theories to defend this dark side of the American system while rewarding "job creators," "innovators," and "risk-takers." Myself and other critics would interpret it as a rigged system extending thousands of years into history — a divide between 1 percent (originally called the monarchy and nobility class, now called the rich and super rich) and 99 percent (originally called serfs, peasants, and indentured servants, now called the working and middle class).

#### Conclusion

Every nation that professes to be humane, democratic, and/or just needs to implement a floor and ceiling regarding income and wealth. Where that floor and ceiling should be is beyond the scope of this article, but it should be worked out by members of society through political compromise. Failure to work out a balanced and fair floor and ceiling can lead to the decline of the U.S.: first by choking the working and middle class—the populace or base that a democracy needs in order to function—second by reducing opportunity for most citizens because the income/wealth gaps are too wide to permit a level playing field and third by increasing the costs of goods and services which will make us less competitive with emerging nations such as China and India.

These two countries are annually growing 7 to 10 percent while we are growing by 1.5 to 2 percent and are incrementally going to have a more competitive advantage because they stimulate their collective talent towards new ideas, new industries, and new markets; moreover, they have several technical universities that rival MIT and Stanford. The next big ideas are bound to come from young talent in Asia, from people with hard-to-pronounce names.

Already, as you read this article, U.S. investors are recruiting Chinese and Indian students and financing their ideas. There is tons of money chasing these start-up ideas, and it's bound to happen that young stem workers from China and India are going to start big companies like Google, Facebook, and LinkedIn. I'm not willing to say that our best days are over. But we have to get used to the notion that many innovative ideas in the 21<sup>st</sup> century will be coming from Eastern-rim nations.

<sup>&</sup>lt;sup>®</sup> Eduardo Porter, "Unionizing the Bottom of the Pay Scale," New York Times, December 5, 2012, pp. B1, B4

## Mother's Day: Coming to Terms with the Cruelty of Parkinson's

#### J. Conrad Guest

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**Abstract:** Celebrity Michael J. Fox and former heavyweight champion Muhammad Ali have given a face to Parkinson's disease. A chronic and progressive movement disorder, Parkinson's disease is the malfunction of nerve cells, or neurons, in the brain. Neurons produce dopamine, a chemical that sends messages to the part of the brain that manages movement; without dopamine, a person is unable to control movement. The primary symptoms vary from person to person and include tremors of the hands, arms, legs, jaw and face; bradykinesia (slowness of movement); rigidity or stiffness of the limbs and torso; and postural instability or impaired balance and coordination. Nearly one million people in the U.S. live with Parkinson's disease. Its cause is unknown, and although there is presently no cure, its symptoms can be managed through medication and surgery. Novelist J. Conrad Guest chronicles his mother's battle with Parkinson's, which ended for her nearly twenty years ago.

Keywords: Parkinson's disease, PD, symptoms, Muhammad Ali, Michael J. Fox, Mother's Day, J. Conrad Guest

Mother's Day at six: finger-painted pictures, cutout flowers and Elmer's Glue. Clumsily fashioned ceramic turtle ashtrays, and cards with simple words filled with love and written in shaky block letters... all long since forgotten by the child, but cherished forever by Mommy, so proud of her young son.

As the child grew older, the homemade treasures became a Hallmark tradition: cards chosen with care, a special sentiment scrawled inside to personalize it, to make it different from the hundreds of other cards purchased for other moms. A necklace, a pair of earrings, a ceramic or pewter figure, sometimes a book, and always a brunch - time with Mom, perhaps the most treasured gift of all.

When did all that change? For me the change came in my twenty-fourth year, my mother's fifty-second. A weakness on one side of her body and a slight tremor; diagnosis: Parkinson's disease. I'd heard of this disease, but knew little of it and its cruelty. Human nature, I suppose, to ignore the unpleasant until it touches us personally. Parkinson's had touched my mother. She would suffer from its effects, become weaker day by day even as she fought her battle, a battle she was destined to lose, one day at a time.

Yes, Parkinson's had touched my mother, but it would touch me, too, and my dad and my sister as well. For the next eighteen years we would all become intimately familiar with Parkinson's and its relentless pursuit to steal from Mom her functionality as well as her dignity. Helpless, we could only watch. Innocent bystanders, we would see, firsthand, Parkinson's handiwork. And in the process Dad would lose

his wife, and my sister and I would lose our mom.

In the early stages its effects were barely noticeable and came and went. Mom had good days and bad days. All too quickly that changed: she would have bad days and worse days. She quickly learned that protein in her diet would worsen the tremors, and so she began eating less and less. She would lose the ten pounds she always wanted to lose.

Through it all, Mom struggled to maintain a sense of normalcy to the madness. She drove a car for as long as she could. In time it would become an effort for her to get up from a chair and cross a room; at the very end she needed assistance getting from the bed and down the hall to the bathroom and back.

My visits to the house I grew up in revealed Mom engrossed in her daily routines: dusting, vacuuming, laundry—struggling to keep house in the same fashion she had while my sister and I were growing up. "Why," I asked one day, not understanding, as she struggled mightily to iron a pillowcase, "why do you work so hard, Mom?" "It has to be done," she answered patiently.

During the early stages of her condition it was good therapy; towards the end it seemed that she had become somewhat of an automaton, functioning solely on what she'd managed to convince her broken brain was necessary in order to maintain her normalcy.

In public she was most self-conscious of her condition. "I'm sorry," she would say, apologizing for the extra few moments it took her to make up her mind over which item on the menu she wished to order, to get her wallet out of her

Author: J. Conrad Guest is the author of eight novels. He writes about the universal ideals of love, loss, regret, and death—and the emotions associated with those ideals. A critic calls his work "Gritty, entertaining real. Romance for the non-romantic."

purse, or for the difficulty she had in making herself heard as her speech became more and more slurred. "I have Parkinson's."

Once a month I would get a call asking if I wanted to split a pizza. Splitting a pizza with Mom meant that I'd call the order in and pick it up. Once home, she'd pay me for the pizza. How could I pass up an offer like that? She rarely ate more than one slice, because the protein would cause her to shake, but that pizza always managed to "hit the spot".

As dad got older, I helped with much of the yard work, mowing the lawn in the summer, raking the leaves and cleaning the eaves in the fall, and shoveling the snow in the winter. I also painted the garage for the last time. But Mom was always out there too, offering what help she could, even if it was only to bring me a cold beer. In the spring, when most Michiganders welcome the warm weather after months of winter and thrill at the sight of new growth, Mom would panic. Springtime to her was the harbinger of autumn, when the leaves would drop, and who was going to rake up the leaves for her?

The ten pounds had become twenty. Eventually her forays into public became less and less frequent. On her worse days she refused to put herself on display; on her bad days she needed to get out of the house. A prisoner of her own body, she would occasionally seek an escape from the prison that her own home had become.

Spending money would become one of her few pleasures. It would make her happy to bring home a new plant or a knick-knack for the house or a new sweater for herself. Unfortunately it was a quick fix—spending merely propagated more spending. Yet for all the pleasure it gave Mom, Dad, ever the more practical one and ignorant of the why behind her spending, grew more and more frustrated. A new pair of slacks was never a single trip to the mall. Mom's condition prevented her from trying on the outfits she bought until she got home. Often it would be much later that she would find she had brought home the wrong size, or that it was the wrong color to go with the blouse or sweater she had purchased a week before. The woman who once was able to unerringly pick out a picture for the dining room without a piece of wallpaper and a carpet swatch to match it to now became indecisive about which kitchen trash bags she wanted to purchase.

Despite the many clocks she purchased over the years, perhaps as a reminder that the sands of time were dwindling for her when so much living remained, a twenty-minute trip to the mall to exchange an outfit would end up a two-hour ordeal, with stops at the fragrance counter as well as the handbag and linen departments. Too late I realized the shopping meant little to Mom; it was the getting out that brought her the most pleasure.

Towards the end the Parkinson's began to affect her speech. She would have difficulty supporting her voice and would speak in little more than a whisper. About that same time Dad's hearing began to deteriorate. The timing would've been amusing had the potential for disaster not been so real. One day Mom fell while in the garage and struck her head on the driveway. Unable to call out for help, she lay in a puddle of her own blood for thirty minutes before it occurred to my dad to go looking for her. Vanity aside, Dad finally agreed to get a hearing aid.

Mom began to lose her balance more and more frequently. She would come to a stop, nearly in mid-stride, her muscles locked in a sort of rigor mortis. She would stand for minutes at a time, unable to move or to call out, until Dad would find her and coax her into motion again and assist her to a chair, or she would just topple over. It's a wonder she never broke anything, or worse, that she never fell down the basement stairs.

Each Christmas she would make the arduous journey into the basement several times to bring up her decorations, despite the fact she and Dad rarely entertained family anymore. Yet she managed to do all of her own Christmas shopping, right up until the very end. Always a gift for me; always something I needed. Each card she ever bought for me spoke to me: somewhere inside this frail and failing body was a six-year-old boy's mommy.

Three years before she passed away, I had a minor surgery to repair a hernia. I would be off work for several weeks and unable to drive for at least a week. Mom sent Dad to the hospital to pick me up and bring me home—their home not mine. I live alone, and she insisted I stay with them for the weekend so they could care for me. Not wanting to be a burden, it felt odd having her fuss over me, after all, she was the invalid; but it was comforting, too, being home. Having Mom take care of me.

On Monday Dad took me to my place, and every day for a week thereafter they'd come by together to take me to lunch. Of course I thanked them for all they did for me, but it wasn't until Mom was gone that I realized what taking care of me had meant to her. Although she never said it, perhaps she didn't understand it, but I had given her life a purpose again, if only for a few days. Someone needed her. Her son needed her. I'm glad now that I let her take care of me.

The twenty pounds had become thirty. Mom fought extreme depression, courtesy of her affliction. It was rare that I saw her lose her temper, rarer still that I saw her question the reason behind her disease. "Why me?" she pleaded on a rare occasion. And I could only shake my head. She would lash out from time to time, at Dad most often because he was there most often. She tried Dad's patience; I know she did because she tried mine, too, as surely as she must have tried

my sister's.

Helpless to do little else but watch, I became angry with myself for my inability to do anything but watch. She needed assistance with nearly every aspect of her life now. Where once she needed someone to cut her food for her, she now needed someone to feed her. Someone came into the house two or three times a week to bathe her. And she began to panic: so much work needed to be done around the house and who was going to do it all?

Yes, I was angry at my inability to do anything about my mother's condition save take care of her, and so I became angry, too, at what she had become, at what the Parkinson's had made of her. I have few regrets where Mom was concerned, but one of them is that I raised my voice to her, more than once. I hope she understood that it was never her that I was angry with.

December 1996: Dad is diagnosed with cancer. While he recovers from a colostomy, I spend the next few weeks going home—the home I grew up in—after work to fix them dinner, make sure Mom has her meds, do a few odd chores, and get Mom ready for bed. I spend the night on the sofa. Mom urinates frequently now, and she cannot make it through the night without going to the bathroom. I sleep fitfully, waiting for her to call my name to help her to the bathroom, two, three, sometimes four times throughout the night. In the morning I help her from bed and dress her for the day, fix a quick breakfast and coffee, and then go off to work, only to come back in nine or ten hours to repeat the custom.

I hear her voice call out and roll off the sofa and into motion. I pad down the hall on bare feet and pull the covers off her and help her to a sitting position. After a moment, I assist her to her feet and guide her to the bathroom. Once she is seated, I ask if she needs any meds. She has taken to calling them by color and tells me in a whisper, "Two blues and a yellow." At this stage of her illness she takes them when she needs them, which is not always as prescribed. Who am I to argue with my mother? I go to the kitchen, wash my hands and get her meds and some water. Back in the bathroom I place the meds in her mouth and hold the straw to her lips so that she can suck some water. She swallows and I am amazed at the effort it takes for her to do so. A moment later she looks up at me with her beautiful blue eyes and destroys my last hope. Until that moment I had always hoped that whatever the Parkinson's was doing to her brain synapses to cause the tremors, the rigidity in her muscles, her loss of balance and all the rest of the horrible symptoms of this dreaded disease... I had always hoped that it would have the decency to cloud her thinking, too. That a lucid, thinking, aware brain would not be trapped inside this fragile, malfunctioning body.

"You always wash your hands before bringing me my meds," she tells me, matter of fact. "Your father doesn't."

I have been struck a blow; I nearly double over but manage to overcome the urge.

I get her back into bed. I pull the blanket up to her chin and gently arrange it around her tiny frame. I'm suddenly struck by our sudden role reversals. A six-year-old boy is tucking his mommy into bed. Has it really been so long ago that she was doing this for me? I ask myself, hastily brushing aside a tear and hoping that Mom has not seen it, that she will only see me rubbing sleep from my eye.

She looks up at me, her eyes seemingly seeing into me, and whispers, "I'm sorry to be so much trouble."

I manage a smile and wonder if she sees her own dimples in my smile. I lean down and kiss her forehead and whisper, "You're no trouble at all, Mom."

A few moments later, back on the sofa, I cry myself back to sleep.

A few weeks pass and I find I am wearing myself out with this schedule. I had only suspected how difficult it was for my dad to care for Mom all these years, and suspecting is a far cry from experiencing it firsthand. She needs more care than I can give, and needs it most during the day, during the hours I am away. She is active during the day, and should she fall, my father will be unable to get her to her feet. I suggest that she consider having someone come to the house during the day to sit with her, or consider staying at a care facility for a few weeks while Dad completes his recovery from surgery, although by then he will have begun his Chemo and radiation therapy. Her eyes tear up and she shakes her head. I suggest that she deserves and needs better care than I can give her. She gulps and says, "Nobody wants me." Crushed, I give up my argument, and never again breach the subject.

Another week passes and she complains of abdominal discomfort. It worsens the next day. She is taken to the hospital where she is diagnosed with a urinary tract infection. Admitted on Friday, she can be treated over the weekend and be home on Monday. On Sunday a blockage is discovered in her lower intestine. Because of her condition, the doctors advise against surgery. It will only serve to traumatize her and prolong the inevitable by a few days. The inevitable. For eighteen years we awaited the inevitable. Now it was here.

Mom had made it known long before that she did not wish to be tortured into being kept alive. The next day we move her to Hospice, where they will monitor very closely her discomfort and administer morphine whenever she needs it

The thirty pounds has become forty—she now weighs but ninety pounds: a skeleton sheathed in a thin veil of skin.

I visit her every day during my lunch and every night

after work. On Wednesday evening I walk in and tell her how much I wish I could split a pizza with her, but that Lona's won't deliver this far. Her face lights up with a smile I take with me forever. Later that evening I manage to spoon some tapioca pudding, another favorite of hers, into her mouth. I ask her if it tastes good. She nods and manages to say, "It's delicious." A few minutes later she slips into a coma, one from which she will never come out.

On Sunday evening, just after nine, my dad, exhausted by his vigil, asks me to take him home. I remind him to say goodnight to Mom. When he finishes, I lean down to kiss her and whisper into her ear that I love her, and that I'm proud of her. I tell her that it's okay, that everything is going to be fine, and that I will always carry her with me. And then I ask her to let go. "Your time has come, Mother. There is nothing left here for you to do. Go and rest. You deserve it."

My sister stays with Mom.

At just after ten, a few minutes after I get home, the phone rings. It's my sister. My world has suddenly become a much colder place in which to live.

She passed very easily; no death's rattle. Her breathing, which had been irregular for three days, simply stopped. Even had she the will to continue living, the Parkinson's had left her too weak to do anything but succumb. In this she was blessed. After nearly two decades fighting a losing battle, she deserved an easy death.

And now as I sit writing these words so many years later, trying to find some meaning for her suffering in a world

where little of anything that happens to any of us in this brief moment we call life—for good, bad or indifference—has so little to do with meaning, or deserving, I'm nearly compelled to throw in my towel. But I cannot. I will not.

Perhaps the meaning is in the writing of these simple words, although this has been no simple task. Perhaps the meaning is in the impact of what she was and what she became and how she faced her adversity. Perhaps it is in the memory of a young boy and the pride a young mother took in hearing her son utter his first word, in taking his first step, in doing well with his studies, in leaving the nest and alternately pleasing and displeasing her, as all children must surely do. But in every card I ever received for holiday or birthday, she spoke of her love and of how proud she was of her son. Perhaps the meaning of her suffering comes in the full circle of life: that I now bear she who bore me, her memory as well as all that she gave to me and sacrificed for me.

To me, Mother's Day is now every day, as there isn't a day that goes by that I don't think of my dear mother—she who bears the sweetest name, and adds a luster to the same; long life to her, for there's no other who takes the place of my dear mother.

Why do I write these words? The answer begins to come into focus, becomes crystal clear: I write these words because it is a task that must be tended to... a task from which I will not back away, nor will I stop until I have finished writing the last.

## Edna's Identity Evolution in the Awakening

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**Abstract:** The Awakening is one of the two novels written by Kate Chopin who is a famous American novelist and short story writer. It is regarded as a remarkable work of feminism and enjoys an eminent status among feminist critics. The novel demonstrated the essence of the women's struggle for freedom, equality and independence. In the novel, Edna, the heroine, experienced a process of identity evolution. She evolved from a conventional housewife and mother without individual autonomy into a new woman with a heartfelt concern for freedom and independence.

Keywords: The Awakening, Edna, Identity Evolution

#### Introduction

The Awakening is one of the two novels written by Kate Chopin who is a famous American novelist and short story writer. It was Chopin's second novel which was developed from a true story of a woman from New Orland with a notorious reputation who worked in the French Quarts. It is now regarded as a remarkable work of feminism and enjoys an eminent status among feminist critics. The novel demonstrated the essence of the women's struggle for freedom, equality and independence. However, in an era when traditional forces were still prevailing, when it was first published, the novel was severely and unfairly criticized for its offensive contents of inappropriate deeds of the heroine. Chopin was even refused to be admitted into the St. Louis Fine Art Club. Highly sensitive and susceptible to the uproar and criticism, she almost gave up writing and only published a few short stories henceforth. With the development of women's movement in the 1960s, the novel was rediscovered and came to be considered a landmark in the nineteenth century American literature.

The novel depicts how Edna evolved from a conventional housewife without individual autonomy into a new woman with a heartfelt concern for freedom and independence. It tells a story of a married woman called Edna in her late twenties who met and fell in love with a young man named Robert in her summer vocation on the Grand Isle. The relationship between Edna and Robert was mere flirtation, which was very normal among the Creole communities while the long slept desire for love was gradually awakened by Robert's appearance and devotion soon afterwards. Alongside with her newly awakened love, Edna's early reserve and numbness to life was gradually dissolved. Her vigor, sensitiveness, aspiration and

enthusiasm were also stimulated by both Robert's love and the music of Mademoiselle Reisz who was an extremely excellent pianist and an epitome of the musical artist. She managed to resist conventional responsibilities of a wife and a mother and later achieved a level of autonomy, self-growth, personal identity, and spiritual awakening.

However Edna eventually failed to live up to her newly invigorated ambition of being an artist and was kept distanced from Robert by his scruple. Maybe for these reasons, she finally drowned herself. However, whether her suicide was an escape, a revolt, surrender or a return to innocence is still hotly disputed among critics.

This thesis is aimed at disclosing Edna's identity evolution in her progress of the awakening and her final demise. The concept "identity" here mainly refers to one's identification with the social roles, expectations of society members and the conventions. As we all know, we formed the opinion of ourselves through the impression and opinions of others as a mirror and we identify ourselves with a certain stereotype or expectation from the resource of tradition and convention. When we fail to identify ourselves with a certain role in the society, we are confronted with the crisis of drifting with no identity and will be seized by the eagerness to find our identity. This thesis will explore Edna's identity evolution in the following four parts in order to see how Edna's identity came adrift, how she tried hard to rebuild her identity and her final erasure of her identity into the semiotic stage of an infant.

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#### Loose Identity as a Mother: an Uncomfortable Planet

Edna had already been the mother of several children but she herself and her husband both had the vague but quite tangible feeling that she was not well fitted to her role as a mother. As we see from chapter III, as to the slight dispute over one of the child's health status between Edna and Mr. Pontellier, her husband. Mr. Pontellier had the habitual tendency to consider Edna as a negligent Mother as we see from the citations "He reproached his wife with her inattention, her habitual neglect of the children" and "Such experiences as the foregoing were not uncommon in her married life". On reading this, the readers are not sure whether the child was really ill or not. Yet, since such experiences often occurred in their lives, Edna must have had evinced the propensity, if no real cases happened, just as shown in the following citations "It would have been a difficult matter for Mr. Pontellier to define to his own satisfaction or any one else's wherein his wife failed in her duty toward their children. It was something which he felt rather than perceived, and he never voiced the feeling without subsequent regret and ample atonement".

Mr. Pontellier's suspicion and accusation might have been gratuitous. However, the children's lack of affinity with Edna, as shown in "If one of the little Pontellier boys took a tumble whilst at play, he was not apt to rush crying to his mother's arms for comfort; he would more likely pick himself up, wipe the water out of his eyes and the sand out of his mouth, and go on playing", also gave us some evidence from another perspective that Edna may care for the children less than most mothers.

One might still argue that her children might be born to be so brave and husky that they didn't seek as much protect from their mother as other children. However, even Edna herself emanated such inclination to be more distanced from her children than other mothers. For example, when Edna was arguing with Madame Ratignolle, she insisted that she would never sacrifice for the children and at least will not give up the essential. She subconsciously understood that she was less devoted to the children than other women.

Thus, Edna's inadequate mother role was something perceived and tacitly agreed upon by herself and people around her. But whether it was something admitted by Edna herself or something sensed by others, the result is the undermining of Edna role as a mother. Just as the detachable part of a machine was loosely attached to the main part, Edna identity as a mother was a rather precarious one and it may be challenged at any time in her life. From Freud's theory about life instinct, we see that intrinsically life chooses or has to be conservative and tend to reside in an environment stable and safe, repeating its same course of life. Thus, only

when the stability was damaged and can't be restored will the course of life be disturbed and therefore seek for new equilibrium and establish its new course. There are similarities between life instinct and human identity pursuit because if our identity is wholesome and stable, we have no need to doubt and pursue our identity. Only when our identity is problematic and can't live up to the expectations of the tradition and convention, will we be conscious of our disharmony with the environment, thus begin our identity struggle. Edna's failure to live up to the expectations of the society as a mother at that time in that place where she lived was the prerequisite for her identity struggle.

## Dissolution of the Former Expected Identity: Pulled Out of Her Orbit

Edna's gradual awakening to repulse her identity imposed upon by convention and tradition was exacted by a lot of elements and among them the influence of Robert, Madame Ratignolle and Mademoiselle Reisz was of great magnitude. Robert, Edna's devoted but scrupulous lover, awakened her girlhood fantasy for unattained satisfaction of love and stimulated her less symbolic being as a teenage girl craving for love. Edna's confidante, Madame Ratignolle, helped to disperse her former reserve and animated her sleeping memories of the past. Mademoiselle Reisz, the irascible, eccentric and disagreeable pianist, with her artistic flair and soul stirring music, revitalized Edna's dormant artistic propensity and guided Edna to pursue her identity as an independent artist.

Robert was gallant and considerate towards the married women in the Grand Isle, which was within the boundary of the Creole moral principals. Robert's appearance and his semi-comic flirtation with Edna enticed the longing for love and romance which had long fallen into oblivion with her maturity and marriage. Robert play a significant role in helping to stimulate Edna's deadened senses towards desire and longings, thawed the solid identity of Edna as a wife, a mother and a member of the rigid society of fixed identity, and brought her back to the stage of a teenage girl who was open to a world of more possibilities. We can see this from her feelings after their journey to Cheniere Caminada, "She let her mind wander back over her stay at Grand Isle; and she tried to discover wherein this summer had been different from any and every other summer of her life. She could only realize that she herself—her present self—was in some way different from the other self". Their journey was only one epitome of their experience together which gradually transmuted Edna's identity, or we could say helped, to dissolve it to a certain degree. Moreover, when Edna was informed of the news that Robert was going away to Mexico, she was suddenly conscious of her awakened feeling of a teenage girl, as we can see from the citation, "For the first time she recognized the symptoms of infatuation which she had felt incipiently as a child, as a girl in her earliest teens, and later as a young woman". We also see from "The past was nothing to her; offered no lesson which she was willing to heed. The future was a mystery which she never attempted to penetrate" that Edna at that time was quite like a young girl with no past experience for reference and the unpredictable future haunting her. Though such a status can happen anytime in our life, it's much more often during puberty. Thus, I venture to regard Edna's sense of loss as a sort of teenage dilemma. So Edna's identity as mother and wife here, we can say, dissolved partly and she sensed her identity returned back to a more semiotic stage of puzzling and caprice.

Madame Ratignolle was a very gracious lady with a few children who she protected with absolute devotion and she was the incarnation of mother tenderness and women demureness. Towards Madame Ratignolle, Edna had an ambivalent feeling towards Madame Ratignolle. On the one hand, she admired her perfect role as a devoted mother and wife, and on the other hand she disagreed with Madame Ratignolle over the idea of sacrificing one's individualism for the whole family. Edna maintained a rather good relationship with Madame Ratignolle though they were rather different kind of women. Madame Ratignolle influenced Edna from two aspects.

Firstly, as has been mentioned, Edna's ambivalent feeling towards Madame Ratignolle. Though Edna appreciated Madame Ratignolle and regarded her as a confidante, she was actually highly conscious of the difference between Madame Ratignolle and herself. Edna even pitied her mundane and meaningless existence as shown in Chapter XVI "She was moved by a kind of commiseration for Madame Ratignolle,-a pity for that colorless existence which never uplifted its possessor beyond the region of blind contentment". Edna's penetrating into the essence of the life of the perfect mother and wife admired by tradition and convention allowed her to contemplate her own existence and identity, thus enlightening her about her disharmonious role as a traditional mother and wife. The sharp contrast between Edna and Madame Ratignolle, the perfect model for traditional mother and wife, was conducive to Edna's questioning her own identity and resulted in her repudiating the already loosened identity just as in the following chapter we are told "That is, he could not see that she was becoming herself and daily casting aside that fictitious self which we assume like a garment with which to appear before the world".

Secondly, Madame Ratignolle's role as Edna's confidante also helped to stimulate Edna's awakening. Edna

used to be rather reserved as we can see in "She had all her life long been accustomed to harbor thoughts and emotions which never voiced herself. They had never taken the form of struggles. They belonged to her and were her own, and she entertained the conviction that she had a right to them and that they concerned no one but herself". Edna gradually melted her habitual reserve when with Ratignolle and talked with her rather candidly. The sisterhood between Edna and Madame Ratignolle brought back those memories of Edna's childhood: her solitude, suppressed desire and dormant romantic feelings. Especially when Edna confided her experience of walking through a big field with long grasses, her senses of returning to her girlhood of freedom was outwardly expressed and reinforced as we see from "sometimes I feel this summer as if I were walking through the green meadow again; idly, aimlessly, unthinking and unguided". Madame Ratignolle was a good confidante and tried her best to understood Edna, and therefore Edna "was flushed and felt intoxicated with the sound of her own voice and the unaccustomed taste of candor. It muddled her like wine, or like a first breath of freedom". Through the conversation between Edna and Madame Ratignolle when they were in the bath room together, we see how Edna was stimulated into a somewhat lawless, ungoverned and semiotic world of childhood. This process was confessed to Madame Ratignolle. Though she didn't directly aroused Edna's awakening, her role as a confidante greatly help to strengthen Edna's tendency towards this end.

Mademoiselle Reisz was a woman disagreeable to everyone and even Edna frankly admitted that she was not sure whether she liked her or not. However, such an idiosyncratic woman with her artistic aptitude and her music of penetrating power exerted great influence upon Edna's identity evolution. After listening to Reisz's piano, the heartstring of Edna was stroked violently, passionately and turbulently. Every sense of her was stimulated and all of numbness of the ordinary life dispersed. What remained were the pieces of her soul drifting in the weightless world. The night she listened to Reisz piano, she even became able to swim, following her long deadened instinct, just like picking up an old deserted habit. All her life seemed to be invigorated and she was like being with a body and strength of an adult and the soul of a new born infant. Just as Robert said that she was haunted by the spirit, Edna was elated into a status of sublime individualism and her identity this time would be an evanescent one which was extremely complex and beyond naturalization. However, this was a seminal turning point of Edna's identity evolution. From Edna's inner thoughts when she swam freely for the first time, we again sensed her discomfort with her present role as the mother and wife, as was shown in "She grew daring and reckless, overestimating her strength. She wanted to swim far out, where no woman had swum before". The power of music so much influenced her that she began to gather power for the further evolution of her identity. And her behaviors and attitudes towards Robert and her husband were also significant in showing her newly awakened waywardness and sense of freedom like a willful little girl who just would not submit. Thus, Reisz with her contagious music really acted as a key to the long closed door of Edna's inner world and the power of dragging her out of her older identity.

## Struggle to Form Her New Identity: the Efforts to Fit into the New Orbit

Edna was gradually distanced away from her former identity as a traditional mother and wife. She became more and more capricious and beyond the fetters of expectations from the ordinary people. Her girlish and youthful dreams and aspiration was gradually awakened and she was like a newly formed being with much of her identity to be formed. Then, the process of rebuilding her identity became her course.

Her first attempt was to establish her relationship with Robert and to be his love. As we explore how Edna was awakened to her childhood and puberty love, we see her memories of her unattained and some even unattainable romantic love. So when she was finally awakened to her former unsatisfied desires and dreams, the first pursuit she had was to savor the beauty of love and the identity as a young love to her illegitimate lover, Robert. Her love for Robert, though unscrupulous, was sincere and intense. She identified herself with a love whose resignation, patience and jealousy were so profound that she became regardless of her devoted husband and her children.

To be an independent woman and an artist was another attempt of Edna to establish her new identity. Since the turbulence and turmoil of her inner world brought by the music of Reisz, Edna had gone through a fundamental change within herself. Her natural instinct was awakened and her deadened appreciation for beauty was revitalized. She started to strive for artistic distinction and seriously engaged herself in drawing. Moreover, despite of the protest of her husband, she insisted upon moving out of her original house and into a much smaller one in order to get rid of the bonds and shackle of the family even if all the children were throw under the custody of their grandmother. This step was thorough and complete, which attested Edna's determination and her repudiation of her former identity.

#### Edna's Final Return to the Womb: Explorations of Entering a World of no Gravity

In part 3, we see that Edna was gradually awakened to

her memories of younger years, sometimes as a child and some other times as a teenage girl. She gradually infused herself with the waywardness and romance of her younger years. With the influence of Robert, Madame Ratignolle and Mademoiselle Reisz, we can say that she even unconsciously returned to that younger stage of impulse, instinct and intuition. She responded positively to her own senses, desires and volition. Edna was more and more like a small girl but so different from a girl. Her identity was quite close to an adult with a girlish temperament and the strength to exploit this temperament to its extreme. Thus, Edna gradually developed her propensity to strive to be an artist, whose disposition we quite often deem as childishly innocent, profoundly imaginative and fundamentally nonconforming. Thus, we should think twice before we call Edna's return to her girlish status as regression.

However, Edna didn't stop here and her identity development was still in progression. Whether her pursuit of identity as Robert's love and an artist was a failure or not was actually beyond our criticism. Whether her final demise resulted from her failure or not was even more indeterminate. Therefore, we are not going to give a moral or evaluative appraisal. What we should explore was actually where Edna's identity fell into with her final suicide. Then, we focus our attention on Chapter XXXIX in this part.

There are a lot of occasions where the sensual power of the sea was described in this novel. The water of the sea was caressing, loving and sense-stirring full of soothing power and lulling effect. There was two times where Edna immersed herself in the fondling of the sea. The first time was when her intuitive ability of swimming was awakened. When we see such descriptions in this part as "But that night she was like the little tottering, stumbling, clutching child, who of a sudden realizes its powers, and walks for the first time alone, boldly and with over-confidence". Edna seemed to have returned to the primal state of an infant with no impulse and instincts suppressed. Her cool attitude toward Robert and her stubborn refusal to the invitation of her husband for her to come into the house after her first swim by herself gave us an impression of Edna as an uncompromising child ignoring and defying consideration, solicitation and admonition of the parents. However, this time her return was not essential and fundamental for the reason that she was seize by the terror of death when she had gone very far away the seashore and capitulated finally to her husbands' plea. She again was trapped by her previous identity though it was at that time severely challenged and shaken. The second time when Edna was enfolded by the sea was her final suicide. Edna, before her suicide was mesmerized by the mother-like power, caressing, soothing and lulling of the sea as shown by "The voice of the sea is seductive, never ceasing, whispering, clamoring, murmuring, inviting the soul to wander in abysses of solitude". Then, we see such descriptions as, "for the first time in her life she stood naked in the open air, at the mercy of the sun, the breeze that beat upon her, and the waves that invited her" and "How strange and awful it seemed to stand naked under the sky! How delicious! She felt like some new-born creature, opening its eyes in a familiar world that it had never known". Edna was like an infant facing and invited to the embrace of the mother. And when we finally came to the part of Edna's struggle in the sea water, we see what was there in her mind. We witness all her identity and pursuit of identity flashed through her mind. She remembered her children and husband, Robert, and her strive to be artist which corresponded to her identity as a mother, wife, love and her pursuit to be an artist. However, all these gradually dissolved as the terror of death melted away. She swam into a semiotic stage of chaos as shown by, "She heard the barking of an old dog that was chained to the sycamore tree. The spurs of the cavalry officer clanged as he walked across the porch. There was the hum of bees, and the musky odor of pinks filled the air", and returned as naked being into the womb of the mother earth.

#### Conclusion

In the novel, *the Awakening*, Edna the heroine experienced a process of identity evolution. She was not fitted or prepared for the role of a traditional mother and wife. Thus, such an identity for her was both demanding and incompatible with her. She gradually became aware of the burden and shackles the family life had brought upon her. With the influence of Robert's untold yet devoted love, Madame Ratignolle's sharp contrast with her, their intimate and unreserved conversations, and Mademoiselle Reisz's

music, Edna's sense of identity as a conventional mother was gradually dissolve and she had the propensity to return to her younger years, her childhood and adolescence. She retrieved her energetic youth of rebel spirit, waywardness and insuppressible passion from her past life. With her newly attained vigor, Edna strived for the satisfaction of her long deadened senses for love and romance. Her love and passion became finally unleashed and unfettered when she and Robert mutually confess their unscrupulous love. Her strive was actually to be identified as a love with youthful roman and longings. Edna also tried to identify herself with the artist and the pursuit was relentless. However, with the unfulfilled promises of Robert for scruple and morality, Edna seemed to no long harbor any hope for her finding a place in this worldly world and she gave up trying to identify herself with any conventional role in this world of tradition or explore possible new identity unfamiliar to it. With her embracing the sea and dying it, Edna took off all her clothes of identity and swim back into the womb of the mother earth.

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## John Wesley and Christian Leadership: Implications for the Ghanaian Church

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**Abstract:** The thrust of this paper is to explore John Wesley's leadership paradigm as a model for Ghanaian pastors. This was done by reviewing literature on John Wesley and his leadership style. It came out that some Ghana clergy lack Christian moral values and leadership qualities. They suspiciously based their values on their circumstances and personal interests such crave for wealth and fame. The paper concludes that adopting the John Wesley's leadership principles would help redeem the tarnished image of the Ghanaian clergy and would thus enable them live a Christ-like life.

Keywords: John Wesley, Christian leadership, Implications, Ghanaian Church

#### Introduction

Since the planting of Christianity in Ghana, then Gold Coast, by the European missionaries in the nineteenth century, Christianity has grown to become the dominant religion in the country. According to the 2010 national population census, about 71.2 per cent of Ghana's population professes the Christian faith (www.statsghana.gov.gh/ docfiles/2010phc/Census2010). In spite of this achievement, one of the ills of the Ghanaian Church in this twenty-first century, which is a source of concern for most Ghanaians, is indiscipline among the clergy. For some time now the Ghanaian clergy have come under severe attacks from some of their own colleagues, the laity and the media. Concerns have been raised about the caliber of leadership the Ghanaian Church has produced and continues to produce. Many people are dismay about the negative publicity of some Christian leaders. There have been allegations ranging from financial embezzlement, fraud, rape, and murder among others that have been labeled against some church leaders in Ghana of late. In fact, hardly a day passes without the media reporting of a clergy involving in an indiscipline act. For instance, on Friday, 13 June 2014, the Daily Graphic (Online) carried news of a clergy who was remanded in prison custody by a district magistrate court in Agona Swedru in the Central Region for raping a married woman at knife point. Again the media often carry stories of pilfering of church funds by some clergy and some of these cases have resulted in jail terms for some of the culprits. Such incidents point to the fact that some pastors lack Christian moral values and leadership qualities. They suspiciously based their values on their circumstances and personal interests such crave for wealth and fame.

Rev. Justifier Nii-Noi Ocquaye of the Ghana Baptist church hit the nail at the right spot when he attributed the current negative attitudes of Ghanaians to the failure in the ability of the clergy to provide clear leadership. He thinks the upsurge in corruption and gross immorality in the Ghanaian society is due to the failure of the clergy to lead the way. He associated the current national crises to the failure of the Ghanaian clergy to instill proper human values into their congregations and their societies in general. This he thinks is giving rise to all forms of social vices. (http://www.ghanaweb.com accessed when). One thus agrees with Rev. Ocquaye that the current negative attitude being displayed by both Ghanaians and non Ghanaians is clearly an indictment on the credibility of the clergy.

As established from the foregoing, the attitude of Christian leaders deserves much improvement and this calls for the application of some leadership mechanisms. The paper thus explores John Wesley's leadership paradigm as a model for Ghanaian pastors. Generally, a leader is a person who people look up to for direction with regards to making moral decisions. Leadership therefore is the process of influencing a person's character. It could also be simply rendered as the process of organizing people to achieve a common goal. A good leader develops through a never ending process of self-study, education, training and experience. However, in Ghana this process of continues self-studying, education, training and experience is generally believed to be lacking among a cross section of pastors.

The concept of leadership has attracted enormous attention, particularly from areas such as business, politics and development. However, to Bekker (2009) the concept of religious leaders is increasing being ignored (Bekker, 2009). In contrast with Bekker's (2009) view, studies on the concept

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of religious leaders is now gaining prominence, although form the Biblical perspective and this is as a result of the indiscipline nature of some religious leaders (Edgar, 1992; Adeyemo, 2006; Amoafo, 2013). From the perspective of this paper, leadership as a skill is needed in all aspects of human life. Every aspect of life to a large extent determines the nature of the leadership skills needed. In this regard, the issue of religious leadership is unique and thus calls for attention, since religion permeates every aspect or sector of society, particularly in African. This study thus seeks to explore John Wesley's leadership style as a paradigm for contemporary Christian leadership.

#### The man John Wesley

John Wesley's critics often argue that he was not a good example of leadership since his personality often proved to have some disagreeable aspects (Abelove, 1990). However, he was a motivated and determined person who was sometimes perceived to be dictatorial and domineering (Tyson, 2003). This trait of his led some of his followers to nickname him 'Pope John'. Although he was a strong willed person, he showed an approachability to people and was open enough to be called to account for his stewardship at the Methodist Conference of 1766 (Tyson, 2003). He was answerable to his followers. It would be a grave injustice for one to look at his leadership model and influence through the lens of these personality features. Rather emphasis should be placed on factors that were in place that enabled him to be an effective leader.

One can glean his understanding of leadership from his writings. In one of his works, he asserts that the reason the Christian community worldwide had done so little was that they were producing so few real Christians' (Maddox, 2003). He attributed three reasons for his statement. One is that few churches offered their members an adequate understanding of Christian doctrine. Also, where churches provided adequate doctrinal formation, they lacked provision for spiritual discipline. And lastly, where churches offered doctrinal formation and spiritual discipline, there still seemed to be an absence of the Christian practice of self-denial (Maddox, 2003). This situation has led the clergy to 'miss' its rightful place where, in society or in the church? According to Maddox the clergy can take its rightful place when the Christian community understands the scope of its beliefs, particularly as it pertains to the doctrine of salvation. If the community limits its understanding of salvation to merely the forgiveness of sins, then it may very well be assumed that the formation of moral character is an instant that needs no process.

The point worth stressing is that Wesley sees leadership to begin with people. True leadership, in his view is not fixated on a particular ideology or the vision of an individual (Weems, 1999). A model of leadership that succumbs to the temptation of ideologies or personal agenda may be effective for a certain period of times, but will not make a significant impact where it is most needed. He saw the needs in his community and it is clear from his sermon on 'causes of inefficacy of Christianity' that he was tremendously frustrated by the lack of solutions offered by the so-called Christian leaders of his day source. In the same way some of us are frustrated, worried and dismay with the current upsurge of social vices and the apparent lack of solutions offered by our leadership, both political and religious leaders.

Arguably, in the case of Wesley (1951), England's political leaders at that time would have considered themselves to be not only social leaders but also Christian leaders. In the same vein, every clergy should see himself as a social leader and this could be seen in the life of the Israelites under the reign of the Judges. The Judges did not only see themselves as religious leaders but as social leaders as well. Through their social interaction with their people the Judges were able to use God's message to understand not only the religious needs of their people but the social needs as well. With this understanding they were able to find antidote to most, if not all, the challenges confronting their communities. However, in the time of Wesley and in this current dispensation there seem to be a discrepancy between the gospel the clergy believed in and their social interaction regarding finding remedies to the ills of their congregations and the society in general. In other words, (some) clergy seems to have failed to use the gospel to finding remedies to the teaming challenges facing the Church and the society in general. The point is that the attitudes as well as activities of some of the clergy are themselves 'headache' to the Ghanaian Church. These clergy have failed to use the Bible to finding remedies to their indiscipline nature. The query worth asking at this juncture is who is a true Christian leader (ie. One called or commission by God)?

True leaders are those who understand their faith to be more than lip-service in the Church. True leadership demands an awareness of people and their needs and this could be achieved by inspiring change in the life of the congregation. Just like in Wesley's era, in our current dispensation some so-called men of God do not inspire change. So, a query worth asking is where do leaders who inspire change come from?

In Wesley's view true Christian leaders who could make a difference did not necessarily come from those with obvious ability, but simply from the people whom God provided (Weems, 1999). Wesley looked for leaders from among the people, not above the people (Weems, 1999), for he thinks that such leaders have a genuine love and awareness of the realities of the daily lives of their followers. A true Christian leader in this regard follows his

congregation and would not promote an ideology that sought to convince the masses to follow him. Again, a true Christian leader is the one who will recognize as well as pick and work with the lay people in the Church as joint labourers in God's vineyard. Wesley demonstrated this stewardship when he instituted the Order of Local Preachers. These were people among the general populace who expressed their belief that God had called them to proclaim the word and to serve the Christian community at large. These were ordinary lay people with very little training, but Wesley recognized and used their passion for the people and God by allowing them to serve as leaders within their local worshipping communities. This often entailed more than just fulfilling preaching appointments. Furthermore, the preaching places or societies were not managed under the dictatorial finger of a minister or Wesley himself, but were managed by the lay people who formed part of these congregations. Later, these same lay people were those who took charge of greater Methodist structures and circuit stewards. The people were given the opportunity of playing roles in the structure, function and mission of established local congregations, so much so that these communities survive and thrive without the luxury of having a resident minister.

Again, as a Christian, Wesley knew that the foundation of Christian character is the believer's union with Jesus Christ. The union with Jesus Christ produces certain moral results like honesty, integrity, fairness, service to humanity, total dependence upon God for strength and guidance among others which are crucial to a leader's effectiveness. Before his encounter with Jesus at Alders Gate in 1738, Wesley thought he knew Jesus Christ. He had in fact embarked on several journeys to preach about Jesus Christ. However, his actions, as he later realised were in vain simply because he had no personal relationship with the personality he was marketing. Similarly, there are some Ghanaian clergy, who have been preaching about Jesus Christ for some time now, yet their actions depict that they do not have a personal relationship with Jesus Christ whom they have been marketing. A leader who has a personal relationship with Jesus Christ will definitely live a Christ-like life. But this union with Jesus Christ is lacking among some clergy in some of our Ghanaian churches.

A leader with a Christ-like character is able to command trust among his people. This is exemplified in the life of Wesley. In his ministry, he was able to attract a lot of the 'working' poor in England due to the trust the latter had in him. Outler (1977) for instance, describes him as a 'folk theologian' and this is because he 'spoke plain words to plain folks'. In other words, he preached to the understanding of common people. The irony is that he was a superbly educated Christian minister who used his considerable gifts to translate complicated theological discourses for the

common people; it was in this sense that Outler (1977) referred to him as a 'popularizer' who intentionally concealed his learning. His down to earth relationship with the working class earned him a lot of admiration. Hundreds and thousands trooped to hear his sermons. His ability to communicate with the masses was an achievement that went unparallel during his days. But what type of leadership do we see in Ghana today? Most of our clergy are never down to earth. Worse of all most of these leaders rather tend to 'milk' their poor congregations.

Beside, a sense of commitment to one's dreams, goals and target regarding the Great Commission is crucial for successful leadership. Wesley's commitment to the cause of God was evident for all. His fervor to see people saved saw him travel extensively to preach the gospel. On records, he is believed to have travelled more than 250,000 miles on horseback and preached more than 40,000 sermons (Lee, 1954). He and his preachers encountered persecution and physical violence of the bitterest kind. They never allowed strange storms derail their mission train. They rode the storm triumphantly because they showed no fear. In the face of persecution they did not give up or waver in their aim of reaching as many people as they could. They thus, remained resolute to the cause of their mission work. Similarly, a true leader should be able to ride any storm triumphantly and this should be without any fear. Unfortunately, some so men of God easily allow strange storms derail their mission train.

Regarding financial issues, Wesley was also immersed in the lifestyle and theology of the church fathers and this could be seen in his writings. He asserts that any Christian who takes for himself or herself anything more than the plain necessities of life lives in an open habitual denial of Jesus Christ. He was one person who practices what he preached. To demonstrate this, he gave most of his money to the poor and needy. This made him to always wear inexpensive clothes and ate only simple food. He contended that should he die and leave a bequest of ten pounds then humanity should bear witness against him that he lived and died a thief. This is an absolute echo of patristic theological discourse and ethics (Mayhem, n. d.).

Wesley's example depicts his emulation of the Matthean legacy of economic sharing. Economic sharing among the Apostles was both exhilarating and dramatic and this every good Christian steward must emulate. A good steward is that one who always remembers the poor and needy and always has in his mind the core teachings of Jesus Christ on the support of the poor as found in Matthew 25.

One is not advocating that the current Ghanaian Christian leadership emulate this patristic theology and ethics. After all, one is at liberty to live an affluent lifestyle in a country that is characterized by abject poverty. Beside, this patristic theology and ethic did not mean that the labourer

22 Aussie-Sino Studies Issue 3, 2015

was not worthy of his hire or some clergy deserve double honour than others. The point is that emphasis was placed on the welfare of the clergy as well as the ministering of the poor and needy. In Ghana, some clergy especially from the Charismatic strand are living affluent lifestyle. The flamboyant lifestyles of some of these leaders have received much criticism in recent times and indeed it is a source of concern for some Ghanaian Christians (Iddrissu, 2010:147-150) . Condemning the ostentatious lifestyles of some of his colleagues, Eastwood Anaba thinks some Pastors pressurize their congregations (through offering) for their own personal gains. In the end Anaba thinks some of his unpardonable colleagues commit many (Asamoah-Gyadu, 2004). It is not being suggested that church leaders living ostentatious lifestyles are signs of wrong doing on their part, but the unorthodox methods that some of them used to amass wealth from their congregations is partially the source of concern. In addition, the use of the generated funds (offertories) from their congregations to enrich themselves and their families to the neglect of the poor and needy in their churches is another source of worry. This is absolutely in contrast to the patristic theology and ethic and in sharp contrast to the lifestyle John Wesley led. In fact, in contemporary times, the theology of economic sharing that once existed in the church is hardly seen or What is gradually gaining prominence in experienced. Ghana today is what could be described as the theology of individualism. Individualism has eaten into the Ghanaian fabric to the extent that the Ghanaian church sees nothing wrong with it. Some church leaders are so individualistic that even their flamboyant lifestyles depict such system; they live an affluent lifestyle whilst some of their church members find it difficult to subsist. Their lifestyle depicts a leadership style devoid of commitment and care of the destitute; a clear picture of ineffectiveness.

Effective leadership is largely dependent on the commitment and conviction to selflessly realise certain goals. This is known as a vision or a 'preferred future'. For Christian leaders, the conviction must be shaped by the biblical vision of God's kingdom. It must be combined with an ability to communicate these contours in meaningful and relevant ways through sound preaching and teaching and imaginative pastoral leadership. Wesley embodies these attributes in his ministry. The overriding vision of Wesley was not to preach the gospel to as many people as he could so that they could be saved but to always remember the poor and needy. On the issue of preaching the gospel, he charged his newly commissioned circuit riders to save souls as well as care for them. He tasked his riders to spend and be spent in the ministry work. They were not to visit only those who needed them but to those they ought to visit.

Indeed Wesley clearly understood the true principle of

Christian stewardship and this was depicted by his leadership style. In his style he made a fine distinction between vision, mission and strategy. He demonstrated true leadership by giving priority to his leadership vision and mission which he did not only theorized but put into practised.

#### **Implications for the Ghanaian Clergy**

The revival Wesley initiated in the eighteenth century is one of the classic examples of the difference that Christian leadership can make in society. Headed by Wesley (1951), the early Wesleyan movements were responsible for the establishment of schools for adults, free education for children whose parents could not afford their tuition, and the establishment of schools for children who had to work during the week and could not attend school. He and his followers engaged with government and society with regard to economic justice (the taxation of the wealthy in order to support the poor), and they challenged the legal system, providing humanitarian aid to prisoners who lived in dreadful conditions, many of whom would be hanged for minor misdemeanours (Gooch, 2006). Another significant achievement of the Wesley movements was their contribution to the start of the labour movement. In 1746, Wesley established the first clinic for the poor, who otherwise would not have been able to afford medical treatment and later played an important role in advocating the equal treatment of slaves. This was the first place where these slaves were admitted to worship and celebrating the Eucharist alongside any other person who wished to worship (Gooch, 2006).

These achievements by Wesley and his followers hinge on the visionary leadership of Wesley and the support he had from his followers. If one was to attribute Wesley's success to the traditional models of leadership, where Wesley was identified as a leader and all others merely served as obedient followers, then one may suggest that Wesley used the Church as a form to advance his own agenda. Instead, he engaged each issue of social justice on the basis of his personal conviction that God values every person and that every person has the ability to become an instrument of God's presence within their particular context.

Ghanaian clergy first need to understand that they are in their leadership roles not for self aggrandizement but for the sake of others. Nothing is able to prove this than suffering. Wesley had proved that he indeed was seeking the salvation of many. He travelled extensively, endured persecution and opposition. Sacrifice is the key issue here.

Again, the Ghanaian clergy need to be committed and build a credible character. Commitment is paramount to the success of a leader. The need to demonstrate one's passion and belief for the cause of God is paramount if one can gain the trust of his or her followers. Wesley was unwavering and committed in his cause. Such commitment needs to be

learned by the Ghanaian clergy because a congregation desires to be led by one who knows where he/she is going and who inspire confidence. A good leader is one who is steeped in the Scriptures as a source of authority and is willing upon that authority to engage and stimulate the congregants in their Bible study and spiritual formation as an interpreter of the biblical stories and message. Preaching and teaching are therefore pivotal vehicles for communication.

In sum, the indiscipline behaviours of some Ghanaian clergy have been a source of concern for most Ghanaians and non-Ghanaians leaving in Ghana. This has led some of the clergy to attribute the current social vices in the country to the inability of the clergy to live a Christ-like life for Ghanaians to emulate.

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## On Ethical Guidance of Online Hot Words on Net-Mediated Public Sentiment

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**Abstract:** Online hot words, as keywords of social morality and culture, are the navigation mark for the social moral life. In view of the relativity of online hot words and net-mediated public sentiment, and current net-mediated public sentiment environment which exhibits the society's diversification and complication, we ought to positively take advantage of the ethical effect and function of online hot words, and lead to create contemporary harmonious net-mediated public sentiment environment through the relativity of online hot words and social morality.

Keywords: Online hot words, online net-mediated public sentiment, ethical function, ethical guidance

#### Introduction

Online hot word is a kind of expression of public opinion, which is based on the net-mediated public sentiment. Its developing process can be demonstrated in every single seedtime of net-mediated public sentiment, and can lead to changes on developing directly. Currently, due to the interest orientation of market economy system and the diversification of values, the development of net-mediated public sentiment is getting complicated, affecting negatively on the development of society to some degree. Under such situation, basing on the hot words which are the precise of the keywords about moral culture, we ought to give full play of their ethical functions, especially the morality education function, and focus on the guiding effect of hot words on net-mediated public sentiment, as well as give full play of the moral educational function of positive hot words, enhance the control towards net-mediated public sentiment and restrain negative social influences. Moreover, advocate positive mainstream values of socialism, provide rational thoughts for the purposes including rationalization of social sudden incidents and development of net-mediated public sentiment, diversification of net-mediated public sentiment and unification of social harmony. As a result, mainstream public opinions can be truly expressed by net-mediated public sentiment, and the negative social influences can be avoided, which are brought up by liberalization and irrationality of net-mediated public sentiment during the

development.

#### Relativity of Online Hot Words and Net-mediated Public Sentiment

Online hot words, net-mediated public sentiment, and moral culture influence and promote mutually and complement each other. The forming of online hot words is closely related to the development of net-mediated public sentiment, promotion of network media, and transmission by opinion leaders.

Firstly, agenda-setting of mass media boosts the forming of net-mediated public sentiment. The changes and development of society is fast. Various social incidents happen now and then here and there, such as social sudden incidents, current affairs, natural disasters, entertainment incidents and commercial incidents. They sometimes indicate the inequality of society, like great disparity in social distribution, and rampant corruption of officials; also, they sometimes indicate the anomie of ethical morality in daily life, like crisis of social morality or integrity; moreover, they show the values of indifference between people or materialization in the society. Based on the diversification of hot events, important news events, or social significant topics, mass media will endow them with significance at different degree via agenda-setting, and this kind of significance generally influences or even decides people's judgment of the importance of social problems or events all around. With the exhibiting function of agenda-setting from media and

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persistent focus from public, net-mediated public sentiment can get formed and being increasingly influenced.

Secondly, opinion leaders help boost the forming of hot words during the development of net-mediated public sentiment. Opinion leaders are acting as one important factor in the mass media. Generally, they are active for offering information, opinions or suggestions to activate secondary information transmission and deepen the development of net-mediated public sentiment. In the process of information transmission, the leaders prefer transmitting information or conveying social mentality with the method of online hot words for convenience and high speed, because the words are brief, comprehensible, and classic. Therefore, hot words get formed during the changes and development of net-mediated public sentiment. Development of net-mediated public sentiment is closely related to the forming of hot words, and the words play the role of keywords for conclusion and transmission during the development of net-mediated public sentiment. From another side, net-mediated public sentiment creates the on-line hot words; conversely, hot words lead the development of net-mediated public sentiment.

Thirdly, hot words get formed in every single stage of development of net-mediated public sentiment. Similar to net-mediated public sentiment's affairs, the development of net-mediated public sentiment consists of several stages, including beginning stage, developing stage, high tide stage and decaying stage. However, the stages of hot words sometimes are named after the party in a social incident or the incident itself and get formed in the beginning stage; sometimes called with the opinion leaders' transmission and comments, the words are formed in the developmental stage when the topic or information is expanding; sometimes, the words are formed in the high tide stage, under the situation in which the fierce development of net-mediated public sentiment catches attention of the government. Thus, respectively, different hot words are formed in the beginning, development, and high tide stage of net-mediated public sentiment. In another word, different stages of development produce different hot words, likewise, hot words have different transmitting effects and results in different stages, influencing or leading the development of net-mediated public sentiment to some extent.

## Importance of Guidance of Internet Net-mediated Public Sentiment

In view of large data of contemporary society, transmission of net-mediated public sentiment influences the masses incessantly. In Internet era, with equality and resource sharing, the masses regard the internet as a main communicating platform and spiritual home of study, work,

and life. On such platform, they are extremely free to achieve information and feedback. Once the news incidents happen, they contribute different opinions freely whenever and wherever, and the net-mediated public sentiment finally gets interaction and circulation. With the interaction of media, the netizen is the provider and receiver of social information. The increasing number of the netizen lays a quantitative foundation for the social functions of internet net-mediated public sentiment, that is to say, people's arguments and opinions on social incidents will spread incessantly, resulting in the net-mediated public sentiment's effects on public life.

Compared to real society, network is open and virtual to help unblocked the expression of public opinions; while centralization of opinions leads emotionality of sentiment affairs' development and one-sidedness of opinion expression. Network information is transmitted anonymously, netizen expresses their opinions casually and the network speeches are limitless. Such situation results in severe adverse opinion, false and negative information. Especially, the negative emotions space stimulates massive yellow or grey speeches, which reveals the self-contradiction between social facts and network speeches, leave behind the truth, boosts the generalization of morality and the dilution of right and wrong view. With the dilution of moral base line of network communicating platform, it is greatly possible that crude immoral network languages or even internet mass hunting and personal abuse will happen. For example, netizen in many network communities seldom discuss and communicate about issues, but scold and belittle others instead, out of emotion-releasing. They even attack and smear others severely with no responsibility. 1 What's worse, if one triggers a sentiment incident by the means of false information or rumors harmful to the nation, it will has severe influences on the society and national security. Therefore, finding a way of positively leading net-mediated public sentiment is an important realistic problem to be solved.

Compared to laws and regulations, ethical morality is not capable of restrain men compulsively and completely. But as proper ideology of human society, it is able to restrain men's behavior to a great extent. 2 Accordingly, we ought to focus on the effects and functions of ethics, and make it possible to lead net-mediated public sentiment with the relativity of online hot words and net-mediated public sentiment. During the evolution process of net-mediated public sentiment, especially in the sentiment incidents indicating negative social phenomenon or problems, news media should have relative professional ethics, on the one hand, they should improve the efficiency of investigation of social incidents to tell the truth as soon as possible; on the other hand, they should positively advocate and promote hot

words with positive energy as keywords in the sentiment incidents, in order to create a nice environment of social morality, strengthen the self-discipline consciousness of audience, help improve social moral fashion, make the mass hold higher faith on the government in terms of dealing with sentiment incidents, correct and spread blurred incidents or even the ones with cognitive errors, and get the society harmonious development.

Combined with transformation features of contemporary society, market economy of socialism, diversification of social ideology, values and communication channels promote the diversified development of social net-mediated public sentiment together. Therefore, diversification of social net-mediated public sentiment needs correct leading. Whether the leading way is right or not decides the effects of constructing harmonious socialism, and the way is also the main content of this construction. As concentrated reflection of social public opinions, net-mediated public sentiment catches attention from all social sectors, and becomes a non-ignorable power of constructing harmonious society.3 Correct guidance of net-mediated public sentiment not only can promote citizen's democratic construction, enhance democratic supervision, improve administrative efficiency of government, but also can collect the solving methods of unreasonable social incidents. Faced with the net-mediated public sentiment, which goes against harmonious development of socialism, we should pay great attention on it and think of correct ways to guide it.

#### We Should Focus on the Guidance of Hot Words on Internet Net-mediated Public Sentiment by Setting the Hot Word of "Li Tianyi" as an Example

The guidance of net-mediated public sentiment is of great importance. It decides the construction of healthy network environment and the cultivation of the mass's correct philosophy of life and values. Moreover, whether the guidance is right or not is directly related to the social expectations and the needs of public opinions from the mass, also, and the harmonious stableness and development of society. The following is an example of "Li Tianyi rape case", which was a major social net-mediated public sentiment incident in 2013. It shows that the development and evolution can be sufficiently guided by online hot words functioned as keywords of moral culture in ethical education.

The hot word "Li Tianyi" derives from the incident "Li Tianyi Rape Case". Li Tianyi, now named Li Guanfeng, the son of famous singers Li Shuangjiang and Meng Ge. He is a typical second-generation Chinese rich, second-generation star, and second-generation official. In others' eyes, he was born royal and raised up in a proper way, and gets superior family background and education resources. He got so many

glories and became a teens' idol. However, on 6th September 2011, he was arrested for assault for one year and got released on Sep. 19th next year. On Feb, 22th 2013, he was arrested again for rape case and relegated to juvenile prison due to minority. This case was down for the session on sep. 26th 2013. Beijing Haiding District Court made the first-trial judicial decision that convicting Li of rape crime and giving him 10 years' imprisonment. This case attracted attention and promotion of media from the beginning, including microblogs, commercial portal sites, evening papers, and netizen-oriented forums. It finally became a typical social public incident concerned by all parties.

In the beginning of sentiment development, on Feb. 22th 2013, some netizen exposed through microblog that "one man seeming like Li TianYi, Li Shuangjiang's son, was arrested for rape case". After asking Li's relatives for confirmation, Sina Entertainment Internet then indicated that "Neither did they deny this, nor gave a confirming reply." Then, Tencent Entertainment claimed that insiders of the police has confirmed the truth—"Li Guanfeng (old name: Li TianYi) was actually arrested." In the middle stage, right on February 25th, it's exposed online the female victim withdrew the action after getting rich material compensation, and that Li got guaranteed pending trial. One day later, Beijing Morning Post negated this information and revealed that Li's still in prison. On February 28th, New Beijing Newspaper released that five people including Li had been arrested for one more month because of the complicated case. This incident kept going and reached the peak with messes because of Li's special identification, netizen's seeking novelty, hating the official and rich, especially the belated guidance of relative network institutions of the party and government. Public figure "Li Tianyi", the related hot keywords "disputes on Li's age", "victim's withdrawing the action", "Li's guaranteed pending trail" and so on stimulate netizen's interest in public figures and hot sentiment's affairs. During the further investigation of this case, Li's mother, Meng Ge, declared her son is not a rapist via media. She also expressed that the public and court shouldn't be misled by net-mediated public sentiment, and that social influence is the reason of her son's case. These keywords pulled the trigger of another peak of net-mediated public sentiment. Thus, Meng Ge became the public figure, and some expressions became the keywords of second stage of sentiment, which include "take turns to have sex", "rape after drinking is not rape", "Li's lawyer insists on defense for innocence", "other criminals have a background", "rape a bargirl is not risky", "active masturbation leads sexual deal" and so on.

From the middle stage on, discussions about Li's case got increasingly incandesce. While the topic gradually

transferred from incident itself to negative social effects and individual personal abuse. In view of anonymous speeches online and over liberalization, the netizen aggressed the party verbally with crude words and inflammatory details. For example, one netizen commented on Tianya community: "Meng Ge doesn't have any general legal knowledge at all! Temptations are only for your son? Why the majority can observe the law, except for your son? Furthermore, everyone is born equal. If the law doesn't punish Li, it will be meaningless and dignity of the law will get destroyed." Another netizen said: "Meng ge is ignoring the law. If Li doesn't repent, the court should punish the rapist heavily according to his attitude towards admission of guilt, uphold justice for the victim, punish the criminals and maintain the dignity of law." Meanwhile, the female victim got extreme hurt by the netizen. They forced her to dictate the process of getting raped, and uploaded her nude pictures and other individual privacies online via seeking novelty out of curiosity. Such behaviors resulted in bigger physical and mental injuries, like extreme depression and fear, face mask outside during time, unwillingness to meet with others, and frequent nightmare. With the following further development, Li's background, lawyer and girlfriend are exposed on the Internet. Some netizen vituperated and crusaded against them, vented their anger and gossiped. Because of these, government's public trust were doubted, aggressed and vituperated. The government was regarded as accomplice and perpetrator, not the embodiment of justice. Rumors flied with crude words. Such condition was variant and in a mess. It couldn't get even worse at that time.

From the development of this sentiment incident, we can see that the society will suffer from more unharmonious factors and extremely negative social effects if net-mediated public sentiment develops out of control. For example, the public trust of government and court institution will get lower; people will doubt and insult the government, which will influences its normal work; the officials, the rich and celebrities are one-sidedly considered as privilege-users; unfair image of social consciousness will be produced; the parties in a case and people related cannot live a normal life anymore; what's worse, relying on exposing nude pictures or photo shopped ones as fun or even the money-making methods is seriously destroying social moral fashion and construction of social spiritual civilization. For this situation, the government should refute rumors without hesitation. It's important that relative departments and media should supervise the sentiment incidents and take actions to guide correctly. While at the same time, we should also guide the incidents by keywords of moral culture, in order to make them develop on a correct direction.

Online hot words, as the keywords of social moral

culture, should be given attention for their guiding and educational functions during the whole process. They can help the departments hold an attitude of justice, take solid actions, promulgate authoritative and fair trial results at an early date, help the cases achieve a fair and candid expectation instantly to appease the net-mediated public sentiment, and help the government restore its public trust. Some hot words actting as keyword should be list out as follows: Keyword No. 1: fairness and justice. In legal society, sentiment is sentiment, and judicature is judicature. Sentiment focuses on investigation, and judicature is only for justice. Sentiment should be taken into consideration in judicature, but judicature cannot be controlled by it. Judgment of sentiment doesn't mean justice, but judicature and procedural justice do. Keyword No. 2: privilege. It means a lot to the people of national image, especially the public figures including intellectuals, social elites, celebrities and idols. It's understandable that a mother will defend her son from the crime. However, laws prohibit personal feelings, more accurately, law is greater than love. The public figures should set an example to sustain the fairness, justice and morality of society. Keyword No. 3: professional ethics. Lawyers must observe professional ethics; sustain fairness and justice when exercising their functions. It should be kept in mind that "all people are equal before the law", "the fact tells all before the law". Lawyers should not arrogate the base line of law, lose professional ethics or violate basic morality consciousness. Keyword No. 4: family education. Any parents should put cultivating children's morality into the first place of family education with ecological, naturalized, life-oriented methods step by step. They should also focus on frustration education and the cultivation of children's responsibility consciousness, and never spoil them or even inculcate them with negative thoughts, which are "money makes the mare go", "power is greater than law", "human relationship matters more than laws", "and you can do anything you want if your family background is great", "hedonism" and "money worship". These thoughts are harmful for children's life. Keyword No. 5: efficiency. Li's rape case is one terrible social public incident. Judicial organs and case-handling departments should improve their efficiency and never abuse public rights and any other privilege. At the same time, they should refute rumors and judge in no time to maintain public trust of government and make the public trust and believe in the government.

#### Conclusion

In the process of a sentiment incident, ethical function of online hot words become the soft power of investigation and sentiment's malignant progression. Hot words' educational and guiding functions are good for government to raise its public trust, investigate and put an end to wrongly guided coverage of mainstream media effectively. What's more, guidance of hot words is good for the government's judicial organs to observe the principle of handling in accordance with laws, improve efficiency of handling cases; decrease the over doubts from public and possibilities of triggering sentiment affairs. Then, immoral speeches and behaviors will get reduced, and construction of environment with moral languages. Moreover, the words effectively stop distortion of sentiment information from Internet marketers or law breakers and deliberate attacks from internet hackers. Rumors will stop and die out in front of the wise and the truth. In the end, online hot words, the keywords of moral culture, represent a kind of positive social symbol and

guiding ideology. They lead people view things correctly and provide with a kind of right outlook on life and values, which are the strong guarantee and powerful spiritual motivation for constructing harmonious society.

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# Examining the Effect of Taxes on Economic Growth: Evidence from Ghana

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**Abstract:** All over the world, tax revenue has been identified as a necessity for economic growth. Unfortunately, tax revenue generation has been low in Ghana. This paper therefore sought to assess the short and long run effects of tax revenue on the economic growth in Ghana using quarterly data from 1990 to 2010. The paper employed Auto Regressive Distributed Lag (ARDL) approach to co-integration. The results from the analysis showed that in the long run, taxes have a negative and statistically insignificant effect on economic growth while in the short run; taxes have a positive and statistically significant effect on economic growth in Ghana.

Keywords: Tax revenue, performance, economic growth, Ghana

#### Introduction

Ghana has been blessed with substantial natural and human resources and favourable coastal position. Some of the natural resources include arable land, forests and mineral deposits predominantly gold, diamond, bauxite and manganese which are the bedrock of her foreign trade. Fortunately, the following oilfields have also been found in Ghana: Jubilee (the largest), Tweneboa (the second largest), Sankofa, the Keta basin and the Saltpond basin. The Jubilee oilfield was estimated to contain up to about three billion barrels of light oil. This was discovered in 2007 in the Western Region of Ghana while mass production started in 2010 and presents the country with enough prospects for development. Moreover, Ghana is the second largest exporter of cocoa in the world today after losing out the first spot to Ivory Coast. The cocoa sector is seen both as a foreign exchange earner and vital source of revenue for the government (Terkper, 1995). In fact, high prices for gold and cocoa helped to sustain economic growth from 2008-2011 (Heritage Foundation, 2013).

In spite of the abundance of all these natural resources and competitive advantages, a quarter of the population still live below the poverty line and Ghana's economic situation has not been encouraging (Quandzie, 2012). Some of the main reasons ascribed to this economic situation are high government expenditure, low revenue generation, persistent budget deficit as a result of poor macroeconomic management, unsustainable borrowing, and low level of foreign investment, political instability and unusual money supply with its culminating effects (Witt & Lautenbacher, 2003). Thus, during the 1970s and 1980s, Ghana suffered from devastating economic crises characterised by distortions in almost all sectors of her economy. During this period, government fiscal deficit was high (for instance in 1972 and 1976, the Deficit-GDP ratio was 6% and 11% respectively), inflation averages doubled and even gained triple

digit (1977 -116.3%; 1981- 117.1%; 1983 122.8%) along the line.

This led to smuggling and rambling capital and human flight to neighboring countries and overseas (Tuonuru, 2007). But in spite of these, the general economic outlook of Ghana has been inspiring in the last one and a half decades with GDP growth rates at 9% in 1984 (when in the previous year, 1983 the GDP growth rate was -5%), 5% for 1985 – 1987, 6% in 1988, 5% in 1991, 4% in 1992, 4% in 2000, 6% from 2004-2007 and 8% in 2008, 4% in 2009 and 8% again in 2010 (World Bank, 2013). Particularly, Ghana's government expenditure, it is observed, has been higher than its revenue mobilization, leading to government budget deficit. For example, the budget deficit as percentage of GDP for 2006, 2007, 2008, 2009 and 2010 are -5.6%, -8.5%, -5.8% and -7.7% respectively (IMF, 2011). In fact, this has been the case of less developed countries and countries in sub-Saharan Africa. The report further reveals that in Ghana, government spending far exceeds government revenue and this leads to fiscal deficits which have ensued yearly to date. It therefore becomes imperious for government to comb for other sources of revenue to consolidate its total revenue so that the revenue will exceed the expenditure to achieve a possible government budget surplus. To achieve this height and in order to augment her revenue, government resorts to different sources of non-tax and tax revenue (IMF, 2012).

With Ghana being an epitome of rampant depreciation of currency against other foreign currencies, the issue of taxation is a very crucial fiscal policy instrument for her economic growth. In fact, high level of taxation, according to Gold Coast Securities Limited (GCSL) (2012), has emerged as the topmost challenge facing business operators in Ghana. It was not surprising that against this backdrop, Nana Owusu-Afari, President of AGI, told journalists at a press conference in Accra that "tax is a major concern to industry as increase in taxes raise cost of production of local producers," (GCSL, 2012). A puzzle which must be attended to is whether government

should periodically increase corporate taxes as it is often experienced in a developing country like Ghana or broaden the tax base by reducing the tax rate on inputs, goods and services and corporate profits, which enables the government to raise the needed revenue to promote economic growth (Idun, 2011)

While some studies in Ghana (Terkper, 1998) have concentrated on the issues of tax buoyancy (which is the total response of tax revenue to changes in national income and discretional changes in tax policy overtime) and tax elasticity (which is the automatic response of tax revenue to GDP changes less the discretional tax changes) of the Ghanaian economy with the results indicating that Ghana's tax system is buoyant and elastic, limited studies (if any), could be identified on issue of the effect of taxes on economic growth in Ghana. In fact, the issue of taxation has become crucial to Ghana's economy since there is continually a decrease in the tax base and a low tax elasticity and buoyancy, resulting in fiscal deficit (Asante, 2012).

On the average, tax revenue forms about fifty to sixty percent of GDP in developed countries and between fifteen to twenty two percent in developing countries (Scully, 1991). Indeed, Ghana's tax revenue as a percentage of GDP averages about twenty two percent (MOFEP, 2011). Tax related issues are of great significance to revenue generation of every country therefore tax policies adopted by any government and tax burden should be treated with circumspect if every government is to succeed. Some studies have indicated that there is a positive relationship between taxation and economic growth (Leonhardt, 2012; Chye-Ching, 2012; Keho, 2010; Balls, 2005; Slemrod & Bakija, 1996). Contrarily, extant literature (McBride, 2013, 2012; Ferede & Dahlby, 2012; Mertens & Ravn, 2012; Gemmell, Kneller & Sanz, 2011; Barro & Redlick, 2011; Romer & Romer, 2010; Reed, 2008; and Musaga, 2009) have outlined the negative effect taxes have on economic growth. This position is not different from that of the Economic Theory, which posits that there is a negative relationship between tax and economic growth.

Although the majority of recent literature points to the negative relationship between taxes and economic growth, the fact still remains that earlier researches concluded that a positive relationship exists between taxes and economic growth. Some other researchers such as Poulson and Kaplan (2008), Castro & Cos (2008), and Agell, Lindh and Ohlsson (1997) concluded that different circumstances, approaches, incidence and type and rate of taxation may indicate whether there was either a positive or negative or no relationship between taxes and economic growth. Poot (2000) found that most of the estimates are either insignificant or negative, though a small number are positive. It is pragmatic to note that the majority of the available literature on this contrasting issue is centered on developed economies and some few on developing countries such as Ghana, with different macroeconomic and political environment. Therefore, this paper endeavoured to determine whether there existed or otherwise, a long run and short run relationships between taxes and economic growth in Ghana.

#### Literature Review

#### Growth theory

There is general agreement that development requires economic growth, a real increase in per capita income and the social and political institutions necessary to support an expansion of the national economy. The growth theory can be principally categorised into two, namely, the exogenous growth theory and the endogenous growth theory.

#### Exogenous (Neoclassical) growth theory

The exogenous (or neoclassical) growth theory was developed by Solow (1956) and Swan (1956) in the 1950s and 1960s respectively. After analyzing a production function they posited that capital and labour stimulates growth (Man, Zheng & Lang, 2011). Under this growth theory, there is an assumption of constant returns to scale and diminishing marginal productivity of both inputs and that growth occurs in the model through the accumulation of capital. This meant that there was the optimal output for the economy and no amount of investment will ever allow consumption to exceed the maximum attainable level of consumption per capita. By this, Capital accumulation is said to only influence the transitional growth rate since steady-state growth is determined by exogenous technological progress and population growth. In this model, labour or capital or both inputs become more productive over time through exogenous factors summarized as "technical progress." As a result, the "growth engine" is exogenous and the rate of economic growth cannot be affected by government intervention. In the neo-classical model of economic growth, Cass (1965) and Koopmans (1965) mentioned that fiscal policy changes affect the equilibrium level of GDP and have only transitional growth effects.

This growth theory is therefore concerned with two main expectations about growth in the long run. First, that economic growth occurs due to exogenous technological change and that income per capita of countries will converge. Secondly, this theory postulates that all determinants of growth are exogenous and therefore palpable that government policy cannot affect growth rates, except temporarily during the transition of economies to their steady state. Consequently, the role of government in growth process is usually not investigated in standard neo-classical growth models (Pevcin, 2004).

#### Endogenous (New) growth theory

In order to more precisely define the attributes of economic growth, a new theory was developed in the 1980s. The brains behind this growth theory were Romer (1986) and Lucas (1988), followed by Barro (1990) and Rebelo (1991). According to Gokal and Hanif (2004) the endogenous growth theories describe economic growth which is generated by factors within the production process, for example, economies of scale, increasing returns or induced technological change, as opposed to outside (exogenous) factors such as the increases in population. With the inception of the

endogenous growth theory, the role that government played in the economic growth process changed.

The endogenous growth models argue that long run steady-state economic growth is driven by the accumulation of reproducible capital, physical capital and human capital. This meant increases in physical and human capital accumulation, public infrastructure and innovation lead to faster steady state growth rates. Such models by Barro and Sala-i-Martin (1992) and Locas (1998) suggest that if the production function has constant returns to scale in human capital and physical capital jointly, investment in both inputs can raise output without limit.

In this model, output depends mostly upon labour use and a range of other inputs. Technological progress in effect either introduces new inputs into the production function or enhances the quality of inputs, stimulating economic growth (Aghion & Howitt, 1992; Romer, 1987; Romer, 1990). Romer (1986) also argues that sustained growth can be achieved under the assumption that there are externalities between firms. The new knowledge and techniques invested by one firm can flow to other firms, raising productivity and entire economic output. It must be emphasised at this stage that according to the endogenous growth theory, any tax policy that distorts the incentives to accumulate physical and human capital will permanently reduce the growth rate.

This theory makes a call on government to participate in economic activities which will lead to economic growth. According to this theory, both transition and steady state growth rates are endogenous. The implication is that long-run economic growth rates are endogenous and therefore government plays very important roles directly or indirectly to achieve economic growth. Brons, de Groot & Nijkamp, (1999) mention that several factors are important for determining long run growth of an economy, although in all endogenous growth models, government can influence growth, either directly or indirectly. As a result, long-run growth rates can differ across nations, and there is no need that convergence in income per capita should occur.

Dar & AmirKhalkhali (2002) report that, a major implication of endogenous growth models is that government policy can have wide-ranging implications for a country's long-run growth performance. They again remarked that, government influence in ensuring growth manifests in the application of three main fiscal instruments namely taxation, expenditure, and the aggregate budgetary balance. These fiscal policy instruments affect long-term growth through their effects on the efficiency of resource use, the rate of factor accumulation and the pace of technological progress. Taxes have potential of affecting the efficiency of resource use, the rate of factor accumulation and the pace of technological progress.

The exogenous and endogenous have been instrumental in advancing an understanding of the role of factor accumulation and technological progress in the process of development in the modern era and in sustaining economic growth in the long run (Galor & Mountford, 2008). Nevertheless, it is important to acknowledge that

they are inconsistent with the qualitative aspects of the growth process over most of human existence. The relevance of the endogenous growth theory therefore is that it allows government intervention through various policies, fiscal or otherwise to influence growth, other than the exogenous theory that maintains that growth could only be achieved through technological progress. Thus, by the endogenous growth model, this study perceives tax revenue as an enhancing factor, improving total factor productivity of physical capital and human capital to influence economic growth in Ghana.

#### Empirical review

Empirically, various studies have indicated that there is a positive relationship between taxation and economic growth. For instance, Mazerov (2013) posited that higher taxes are actually associated with better economic performance when they are used to finance higher-quality education and better infrastructure needed and desired by businesses and households. Again, Bird & Zolt (2003) argued that there is no magic tax strategy to encourage economic growth. They posited that some countries with high tax burdens have high growth rates and others with low tax burdens have low growth rates. They, however, explained that that did not mean high tax rates are the key to economic growth.

Meanwhile, Leonhardt (2012) argued that lower tax burden have had no good impact on economic growth as was the case of the U.S. under the Bush tax cut. As a result, it can be deduced from these arguments that higher taxes lead to higher economic growth under some circumstances such as channelling the tax revenue to productive sectors (for example road infrastructure, energy and water) of the economy. The position of Chye-Ching (2012) was not different from those discussed above but he suggested that if the alternative to raising taxes is larger deficits, then modest tax increases on high-income households was likely to be more beneficial for the economy over the long run.

Moreover, Keho (2010), trying to identify the optimal rate of taxation for Cote d'Ivoire, argued that a 1% increase in the tax burden added 0.5% per year to economic growth but explained that the actual tax rates were substantially far beneath the optimal tax rate for the particular studies. Using annual data, Reed (2008) found a contemporaneous positive effect of tax burden on economic growth. All these evidence show to a certain extent a positive relationship between taxation and economic growth. Even other researchers such as Poulson and Kaplan (2008) and Castro & Cos (2008; 2006) concluded that different circumstances, approaches, incidence and rate of taxation may indicate whether there is either a positive or negative relationship between tax burden and economic growth, while Agell, Lindh and Ohlsson (1997) reported that the average tax burden (defined as the total tax revenue's share of GDP) has no effect on economic growth.

Economic theory, however, has underscored the negative effect which taxes have on economic growth due to the fact that taxation increases the cost of products or reduces the income of consumers. Most of the studies testing empirically the relationship between

taxation and economic growth have found a negative effect of the aggregate tax rate on economic growth, but there are some articles that do not find such results (Mutascu & Danuletiu, 2011). Several other researchers have established a relationship between taxation and economic growth. Higher tax rates, according to Furth (2013), slow the economy immediately and depress future growth. This, according to him, reduces revenue gains because higher taxes lower investment, attenuate work effort, and encourages tax-avoidance if not evasion that depress tax receipts. He further indicated that economic harm done by the tax increase automatically increases government expenditures on unemployment insurance and poverty programs and this eventually has an ill effect on economic growth. McBride (2012) found that taxes on corporate and personal income are particularly harmful to economic growth, with consumption and property taxes less so, and it is because economic growth ultimately comes from production, innovation, and risk-taking.

Similarly, recent evidence from the literature also supported the call that there is a negative relationship between taxes and economic growth. While Ferede and Dahlby (2012) concluded that reducing corporate income tax by 1 percentage point raises annual growth by 0.1 to 0.2 points, Mertens and Ravn (2012) indicated that a one percentage point cut in the average personal income tax rate raises real GDP per capita by 1.4 percent in the first quarter and by up to 1.8 percent after three quarters. Again, according to them, a one percentage point cut in the average corporate income tax rate raises real GDP per capita by 0.4 percent in the first quarter and by 0.6 percent after one year. Moreover, Gemmell, Kneller and Sanz (2011) established that taxes on income and profit are most damaging to economic growth over the long run, followed by deficits, and then consumption taxes.

Reed (2008) mentioned that there is a robust negative effect of state and local tax burden and stressed that a multi-year panels mitigate misspecified lag effects, serial correlation, and measurement error. Musaga (2009), in his and work, using regression with both direct and indirect taxes combined, showed that a percentage change in total tax revenue would reduce economic growth by 0.12% but this time the results were statistically insignificant. Similarly, Bania, Gray and Stone (2007) designated that taxes directed towards public investments first add then subtract from GDP while Lee & Gordon (2005) posited that reducing corporate income tax 1percentage point raises annual growth by 0.1 to 0.2 points.

Besides, Blankenau & Simpson (2005) indicated that tax revenue could be increased from the supply side through deliberate economic measures aimed at encouraging production. Some of these policies call for increased government expenditure such that if tax revenues are not responsive to GDP growth, the deficit is bound to persist. This increases annual budgetary allocations and expenditure growth at a rate higher than that of GDP and worse still than that of tax collections. The major complaint has been that of structural factors arising from size of tax base which have been portrayed as severely affecting any country's capability to finance its

rehabilitation and development plans. This literature however fails to establish the long run causality between different tax components and economic growth. Avi-Yonah & Margalioth (2007) indicated that States that raised income taxes averaged a 3.4% reduction in per capita income and Tomljanovich (2004) concluded higher tax rates negatively affect short run growth, but not long run growth.

As indicated earlier some of the literature reviewed had depicted no relationship between taxes and economic growth. Other literature on this same position include Mendoza, Milesi-Ferretti, and Asea (1997) who found that estimated effective tax rates on labour and capital harm investment, but the effect on growth is insignificant. Thus effective consumption taxes increase investment, but not growth while the overall tax burden levels have no effect on investment or growth. Easterly & Rebelo (1993) did indicate that the effect of taxation is difficult to isolate empirically. Katz, Mahler & Franz (1983) shared no different position by mentioning that Taxes reduce saving but not growth or investment. In a more recent work, Mazerov (2013) indicated that how tax levels are measured as well as the time frame under any study may be sensitive on the issue of the effect of taxes on growth.

Some studies according to Mazerov (2013) found that taxes have no effect in one time period but a negative effect in another time period when the time frame is taken into consideration. Other works found a positive effect on one measure of state economic performance and a negative effect on a different measure, and/or different effects depending upon how tax levels are measured and the time frames under examination (Devereux et al, 2004; Johansson et al 2009). But the lack of consistency in the findings as to which time periods or measurements matter is an issue that leaves much to be desired. This in fact gives a lead to consider the long run as well as short run dynamics on the issue of the effect of taxes on economic growth. The measurement differences cannot be clarified in this study since the measurement of taxes adopted is only the total tax revenue in Ghana between 1990 and 2010.

#### Methodology

This study endeavoured to determine whether there existed or otherwise, a long run and short run relationships between taxes and economic growth in Ghana. Several methods were available to test for the existence of the long run equilibrium relationship among time-series variables. In testing such relationships, the often and widely used methods include Engle & Granger (1987) test, fully modified OLS procedure of Phillips and Hansen's (1990), Johansen & Juselius (1990) tests and the maximum likelihood based Johansen (1988; 1991). But the problem with the use of these methods is that they require that the variables under study are integrated of order one I(1). Also, they suffer from low power and their ability to handle small sample is a problem.

Due to these difficulties, the need for a method that will deal with the difficulties outlined in the aforementioned methods was necessary. The autoregressive distributed lag (ARDL) approach to cointegration was then developed and has since become popular in recent years in analysing long run relationships. The ARDL bound testing model was used to test for cointegration and analysis of the long run and short run effects was done in the framework of an error correction model (ECM). In this analysis, emphasis was placed primarily on the distinctive effect of taxes on economic growth. After data collection, data was entered in Excel and estimations carried out using econometric views Eviews 7.0 package.

#### Data, Data Source and Instruments

The study involves primarily the use of secondary data on taxes and economic growth. Secondary data for other relevant variables which contribute to economic growth were also used. As indicated by Leedy & Ormrod (2010), secondary source of data is more suitable if the data required for the study cannot be accessed through primary sources because either the data is not available or the holders of the data are not willing to release the data for the study. It also makes meaning if credible institutions such as the Worldbank, International Monetary Fund (IMF, 2011; 2012), Ministry of Finance and Economic Planning (MOFEP) among others were relied upon for data because they had credible data and especially considering the huge cost and the time that a study like this may require.

Table 1 Variable Definition, Measurement and Sources of Data

Rep	Variable Definition	Measurement	Data
GDP	Economic growth	Real GDP per capita	World bank
KA	Physical capital accumulation	Stock of GFCF	Calculated from stock of GFCF
HCA	Human capital accumulation	Secondary school enrolment	World bank
INF	Inflation rate	GDP deflator	*WDI
FDI	Foreign direct investment	Foreign direct investment(% GDP)	World bank
GEX	Government expenditure	government expenditure (% GDP)	World bank
TREV	Tax revenue	Tax revenue (LCU)	World bank

<sup>\*</sup>World Development Indicators

#### Model specification

The neoclassical growth literature predicted that economic growth is a function of technological change only in the long run (Solow, 1956). With this prediction, exclusively, no avenue was given for other factors to influence growth. In addition, the theorists' assumption of decreasing return to scale implies that in the long run, growth from developing economies will converge with that of developed world. In effect, what will induce discrepancies in growth between high growth regions and low growth regions is technological progress. This assertion has been contested by seminal works by Lucas (1988) which emphasised the creation of human capital as an important contributor to growth. Similarly, Romer (1990) and Grossmann and Helpman (1991) emphasised the creation of knowledge as important contributor to growth. Stated differently, Romer (1986, 1990) and Lucas (1988) expanded the concept of capital to include knowledge and human capital (Myles, 2007). Thus, in addition to the conventional physical capital, knowledge and human capital form what is known as total capital. Increases in knowledge and human capital commensurate other forms of investments and are therefore endogenously determined. More importantly, marginal product of capital is constant, unlike the neoclassical postulation, which assumes that there is diminishing marginal product.

If the new (endogenous) growth theory is anything go by, it is always plausible to start with the algebraic representation of the simplest endogenous growth model – the 'AK' growth model by Rebelo (1991) which assumed that labour is maximised and assume a Cobb-Douglass production function under a regime of constant return to scale, so that we have:

$$Y = A H_t^{\alpha}(R_t^{\beta}L_t^{\delta}) + \varepsilon_t, \qquad \alpha + \beta = 1, \beta + \delta = 1$$
(3.1)

Where

Y=Output, A=Total Factor Productivity, H=Human Capital, K= Physical Accumulation, L=Labour and  $\alpha$ ,  $\beta$ ,  $\delta$  are the Cobb-Douglass production coefficient, t= Time.

Let assume that labour (L) is maximised in Ghana (Frimpong & Adam, 2010) and find the natural log of both sides. In addition, assume that the TFP captures growth in output due to other factors other than increase in physical input (capital) in the growth model. Given that TFP is endogenously determined, the endogenous growth literature suggests that taxation affect economic growth. In addition, the efficiency factor offers a flexible platform for other growth determinants to be infused in the conventional growth model. The endogenous growth model thus offers flexible platform for a large number of factors to affect economic growth through the TFP.

This study again assumes that, in addition to total capital (physical capital accumulation and human capital accumulation), economic growth is also affected by taxes (TREV). In addition, the TPF includes the inflation rate (INF), foreign direct investment (FDI), and total government expenditure (GEX). The final major assumption for this study is that the dependent and independent

variables are related in a linear manner in order to conceptualise the theoretical model of Rebelo (1991) to reflect the effect that taxes have on economic growth, equation 3.1 was transformed into:

$$lnY = lnA + alnH_t + \beta lnK_t + \delta lnL_t + \varepsilon_t$$
(3.2)

Where:

Ln = natural logarithm (this is subsequently represented by l in the results and discussion, summary, conclusions and recommendations, Y = economic growth, A = the efficiency factors (TFP), comprise government expenditure, inflation, foreign direct investment and most importantly tax revenue), H = human capital

accumulation, K = physical capital accumulation, L = labour,  $\varepsilon$  =

error term, t = Time.

The logarithm of the variables under study is used in the empirical analysis. The transformation of the series to logarithms is intended to eliminate the problem of Heteroskedasticity (Elyasi & Rahimi, 2012).

#### Empirical model specification

With the assumption that labour in Ghana is maximised coupled with the fact that labour is difficult to define, the need for a standardised proxy for labour was considered. This could be the population i.e. the active population (16-60 years). This was difficult to estimate and with labour not been so necessary towards the achievement of the objective of the study was dropped. Therefore, to meet the objectives of this study which establishes the relationship between taxes and economic growth, equation (3.2) was transformed

into a natural logarithms form and a log-linear model estimated in the following form:

 $InGDP_t$ 

$$-\alpha_0+\alpha_1InFKA_t+\alpha_2InHCA_t+\alpha_3InGEX_t+\alpha_4InINF_t+\alpha_5InFDI_t\\+\alpha_6InTREV_t+\mathcal{E}_t$$

(3.3)

Where:

In denotes natural logarithm, GDP is the real gross domestic product, PKA is physical capital accumulation, HCA is human capital accumulation, INF is the GDP deflator, FDI is foreign direct investment, GEX is government expenditure, TREV is a vector of taxation. The coefficients  $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5$ ,and  $\alpha_6$  are the elasticities of their respective variables (logarithm transformed),  $\alpha_0$  is the constant component, t denotes time and  $\epsilon$  is the error term. The a priori expectation was that the entire coefficient would be positive except TREV which was expected to be negative.

### **Results and Discussions**

#### Descriptive statistics

A descriptive analysis was carried out to describe the variables under study using mean, median, standard deviation, skewness and kurtosis. The data for the study comprised the logarithm of quarterly data of real gross domestic product (LGDP), capital stock (LPKA) human capital accumulation (HCA), government expenditure (LGEX), inflation (LINF), foreign direct investment (LFDI) and tax revenue (LTREV) for the periods 1990 – 2010, yielding a sample size of 70. The results of the descriptive statistics are shown in Table 2.

Table 2 Descriptive statistics

Variables	LGDP	LPKA	LHCA	LGEX	LINF	LFDI	LTREV
Mean	21.42	20.14	4.44	2.45	2.96	0.63	19.69
Median	21.36	20.48	4.40	2.45	3.11	0.54	19.71
Max.	22.49	23.01	4.68	2.73	5.09	2.25	22.25
Min.	20.02	17.14	4.26	2.23	0.76	-1.38	16.91
Std dev	0.53	1.72	0.10	0.13	1.37	0.93	1.77
Skewness	-0.21	-0.22	1.07	0.09	-0.07	-0.42	-0.04
Kurtosis	2.91	1.81	3.06	2.29	1.71	3.01	1.50
Dispersion	0.024	0.085	0.022	0.053	0.46	1.47	0.089
Jacque-Bera	0.56	4.74	13.28	1.59	4.88	2.05	6.57
Probabilty	0.76	0.09	0.00	0.45	0.09	0.36	0.04
Dispersion	0.024	0.085	0.022	0.053	0.46	1.47	0.089
Sum	1499.67	1409.84	310.95	171.52	207.11	1378.85	1378.85
Sum sq. dev.	19.30	204.97	0.75	1.08	130.19	215.80	215.80
Observations	70	70	70	70	70	70	70

Source: Computed by authors using Eviews 7.0 (2015)

The highest dispersion (coefficient of variation) for the logarithm of the variables based on standard deviation relative to the

mean is found in LFDI, LINF, LGEX, LHCA, LTREV, LPKA and LGDP in a relative descending order. This means that LFDI has the

highest dispersion from its mean with LGDP having the lowest dispersion from its mean. This is not surprising, looking at the economic dynamics in Ghana. The uncertainty of Ghana's ability to sustain its fragile democracy in the 1990s and subsequent elections wreaked a decline in the FDI flow in those periods. Though Ghana's economy has tripled from 1990 to 2010 in nominal terms, its experience of high inflation means the variability in real GDP is not much as expected. In terms of skewness, all the logs of the variables are relatively symmetrical except for LHCA, which is positively skewed. The negative skewness indicates that the longer tails extend in the direction of low values. It can be observed from Table 2 that in Ghana, human capital keeps increasing. The data is not however peaked or lepturrtic for any of the log variables. They all indicate platikurtic distribution.

The p-values of Jarque-Bera statistic is used to test the normality of the data. If the p-values of Jarque-Bera of the variables is significant (p < 0.05), then the alternate hypotheses can be accepted and the null hypotheses of normality can be rejected, thus, the data can be described as not normally distributed but if it not significant (p > 0.05), then the data can be described as normally distributed. From Table 2, whereas with LGDP, LPKA, LINF and LGEX failed to be rejected at 5% significance level (meaning the data is normally distributed), the assumption was rejected for LHCA and LTREV (meaning the data was not normally distributed for these variables)

#### Long Run Effect of Taxes on Economic Growth

Review of related literature coupled with the methodological review favoured the cointegration approach for such a relationship. It is important to reiterate that the ARDL approach to cointegration involved two steps for estimating a long-run relationship. The first step was to investigate the existence of a long run relationship among all variables. If there is a long-run relationship (cointegration) among variables, then the second step is to estimate the long run models. The ADRL presentation of equation (3.2) was established. The ARDL model can be stated as:

$$\begin{split} \Delta LGDP &= \alpha_{0} + \sum_{t=1}^{3} \alpha_{1t} \Delta LGD_{t-t} + \sum_{t=0}^{2} \alpha_{2t} \Delta LPK\alpha_{t-t} + \sum_{t=0}^{2} \alpha_{3t} \Delta LHCA_{t-t} \\ &+ \sum_{t=1}^{3} \alpha_{4t} \Delta LCEX_{t-t} + \sum_{t=0}^{2} \alpha_{5t} \Delta LINF_{t-t} + \sum_{t=0}^{2} \alpha_{6t} \Delta LFI \\ &+ B_{1}LGDP_{t-1} + B_{2}LPKA_{t-1} + B_{3}LHCA_{t-1} + B_{4}LGEX_{t-1} + B_{5}LINF_{t-1} + B_{6}LFDI_{t-1} + s_{t} \end{split}$$

When the analysis was done, the results of the cointergration for the economic growth were reported in Table 3.

Table 3 ARDL (3, 2, 2, 3, 2, 2, 2) Model for the Growth Model

Wald Test: Equation: LGDP					cal Value Bound for I tricted intercept and	
Test Statistic	Value	Df	Probability	k	1(0)	1(1)
F-statistic	4.951219	(7, 32)	0.0007	6	2.45	3.61
Chi-square	34.65853	7	0.0000			

Null Hypothesis: B<sub>1</sub>=0, B<sub>2</sub>=0, B<sub>3</sub>=0, B<sub>4</sub>=0, B<sub>5</sub>=0, B<sub>6</sub>=0

From Table 3, the calculated Wald or F-statistics exceeded both the upper and lower critical values provided on Pesaran et. al (1999). This indicates that there exits long run relationship among the

variables. The long run relation was therefore estimated and presented in Table 4.

Table 4 Estimation of the long run growth model

Dependent Variable: LGDP					
Variables	Coefficients	t-statistics	Probabilities		
LPKA(-1)**	1.99514	2.90425	0.0066		
LHCA(-1)	1.92693	1.37727	0.178		
LGEX(-1)	-0.48407	-0.67876	0.5022		
LINF(-1)**	-3.41935	4.669438	0.0001		
LFDI(-1)	-0.12075	-0.720541	0.4764		
LTREV(-1)	-0.3686	-1.166694	0.252		
Source: Author estimated.		*1% sig. **5% sig. ***	10% sig		

From Table 4, there is a positive relation between capital stock (LPKA) and human capital accumulation (LHCA) on one hand and economic growth (LGDP) on the other. Government expenditure (LGEX), inflation (LINF), foreign direct investment (LFDI) and tax revenue (LTREV) showed a negative relationship with economic growth (LGDP). However, it is only the physical capital accumulation (LPKA) and inflation (LINF) that had significant probabilities. Thus, LGEX, LHCA, LFDI and LTREV are insignificant in explaining economic growth in Ghana. Particularly, a unit increase in tax revenue leads to 0.3686 decrease in economic growth in Ghana in the long run.

# Short Run Effect of Taxes on Economic Growth

Following from the determination of the long run effect of taxes on economic growth in Ghana, empirical literature suggest that it must be followed with the estimation of the short run model (Aboagye & Gungal, 2000). To achieve this purpose, the error correction model was estimated and represented in Table 5. When cointegration exists among the variables then this allows for the

estimation of the error correction model to trace the speed of adjustment coefficient of the variables in the system. The speed of adjustment coefficient is also known as the error correction term. The error correction term, ECM (-), which is the lag of the residual from equation 4.5, measures the percentage of the deviation from the long run equilibrium that is corrected every quarter. Thus, the ECM measures how long it takes the system to return to equilibrium state after deviating from the long run relationship.

Table 5: Estimation of the short run economic growth model

	Dependent Variable: D(LGDP)					
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
D(LPKA)	0.484169	0.397383	1.218394	0.2306		
D(LHCA)**	10.07905	2.777956	3.628224	0.0008		
D(LGEX)**	3.670360	1.095202	3.351308	0.0018		
D(LINF)**	5.545916	1.219159	4.548968	0.0001		
D(LFDI)**	-0.486482	0.161670	-3.009099	0.0046		
D(LTREV)**	0.531692	0.260536	2.040759	0.0483		
D(LGDP(-1))	0.358717	0.113585	3.158153	0.0031		
D(LGDP(-2))	0.124395	0.120956	1.028431	0.3102		
D(LGDP(-3))	0.119674	0.099855	1.198479	0.2382		
D(LPKA(-1))	0.307107	0.517709	0.593203	0.5566		
D(LPKA(-2))	0.544181	0.459966	1.183090	0.2441		
D(LGEX(-1))	0.592653	1.410706	0.420111	0.6768		
D(LGEX(-2))	1.466068	1.315708	1.114281	0.2722		
D(LGEX(-3))	1.044308	0.674564	1.548122	0.1299		
D(LINF(-1))	-0.523461	1.598190	-0.327534	0.7451		
D(LINF(-2))	1.003638	1.368490	0.733391	0.4678		
D(LHCA(-1))	1.862667	3.783766	0.492279	0.6254		
D(LHCA(-2))	6.091951	3.229233	1.886501	0.0669		
D(LFDI(-1))	-0.010922	0.208459	-0.052392	0.9585		
D(LFDI(-2))	-0.095455	0.178499	-0.534767	0.5959		
D(LTREV(-1))	0.014889	0.308795	0.048217	0.9618		
D(LTREV(-2))	0.396692	0.274211	1.446669	0.1562		
C	17.31495	2.726495	6.350626	0.0000		
@TREND	-0.035061	0.005425	-6.463235	0.0000		
ECM(-1)	-0.549014	0.085617	-6.412454	0.0000		
R-squared	0.801063	Mean dep	endent var	-0.002423		
Adjusted R-squared	0.675419	S.D. depo	endent var	0.173992		
S.E. of regression	0.099127	Akaike info criterion		-1.49673		
Sum squared resid	0.373393	Schwarz	criterion	-0.64628		
Log likelihood	72.14704	Hannan-Q	uinn criter.	-1.16224		
F-statistic	6.375642	Durbin-V	Vatson stat	2.239447		
Prob(F-statistic)	0.000000					

Source: Authors estimation (2015)

\*1% sig. \*\*5% sig. \*\*\*10% sig

The error correction model (ECM) was used to consider the short-run relationship among the variables under consideration. The

sign and magnitude of the ECM gives information about the short-run mechanics of the process. This shows the direction and the

speed of adjustment towards the long-run equilibrium course. From Table 5, the adjustment coefficient is negative (-1) and statistically significant (0.0000) in the model. The negative sign indicates that in the absence of any change in the regressors - deviation from the long run relation is offset by the increase in the dependent variable. For instance, in the absence of changes in DLPKA, DLHCA, DLINF, DLGEX, DLFDI, and DLTREV deviation of the model from long run relation is offset by about 54.9 percent increase in DLGDP per quarter.

Thus, it takes less than two quarters for the economic growth of Ghana to return to equilibrium in the event of any economic shocks. It's not surprising that in the mist of for instance the global financial crisis Ghana still records economic growth. The diagnostics for this model indicates that the R-squared was 0.801. This means that approximately 80.1 percent of the variations in the difference of the LGDP are explained by the difference of the log of the regressors involved. The DW statistics is 2.239, which is within the limit that literature recommends. Most importantly, the ECM coefficient was also negative. The results from the short run indicate that there is a positive relationship between the DLGDP and DLPKA, DLHCA, DLGEX, DLINF and DLTREV but a negative relationship between DLGDP and DLFDI in Ghana. Out of this, only the short term relation between DLGDP and DLHCA, DLGEX, DLINF DLFDI and DLTREV were significant at their coefficients in explaining economic growth. On the other hand, the relation between economic growth (DLGDP) and physical capital accumulation (DLPKA) is not significant and determinable. The result showed that a unit increase in tax revenue leads to 0.531692 increase in economic growth in

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Ghana in the short run, as depicted in Figure 1.

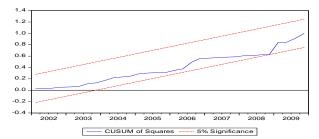


Figure 1: Stability test of the growth model

### Conclusion

There is a long run relationship between tax revenue and economic growth (GDP) in Ghana and that means any tax policy has a long run effect on the growth of real GDP in Ghana.

Again tax revenues have a positive effect on economic growth (GDP) only in the short run in Ghana. This suggests that increase in tax revenue seem to provide a short run solution to economic growth since tax revenue increases in the short run may increase the income component of Ghana's GDP. This short run effect of tax revenue on GDP may not be sustainable in the long run when other economic factors also come to play in the long run as revealed by the study.

Meanwhile the study reveals a negative relationship between tax revenue and economic growth (GDP) in Ghana as the economic theory indicates. This finding cannot be considered by policy makers for decision making in Ghana because the negative effect of taxes was not significant in explaining the increase or otherwise in economic growth in the long run.

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# Zhuzhou Urban Living Environment of the International Strategy

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**Abstract:** The basic theory and the role of the urban human settlements of zhuzhou was analyzed, by which, pointing out its status and the issues involved, and working out the strategic plan of the living environment of Zhuzhou city that reaches the international level, i.e. to maintain the natural, harmoniously progress together, and promulgate culture. The result shows that the urban human settlements consist of various factors, to actualize science and reasonable residential stratagem will render Zhuzhou must come to an ecological and international all-round developed human settlements city.

Keywords: Human Settlements, City International, Zhuzhou, Ecology

#### Introduction

Human settlements are the bases which human live and inhabit. Their cores are human and their purpose is to meet the needs of the "human inhabition". Human living environment is the indispensable condition for the development of human. The development of any country: Society, economy must rely on the effective human settlement. The urbanization process is not only the process of gradual city construction, but also the process of the human settlements. Urban living environment condition is able to objectively reflect many aspects of dynamic process which is caused by the urbanization of the economic, social and cultural changes and it is one of the standards to measure the sustainable development of the city.

Human Settlements is related to the society, culture, environment and economy factors, Therefore, Further analysis of present situation of the residential environment development in Zhuzhou City can provide the new evidence of the city planning, reform and the comprehensive development. We can start from the ecological environment, social environment and cultural environment which can reflect the residential environment comprehensive situation of Zhuzhou City. Then we can choose some representative content to analysize finally we can construct a scientific Zhuzhou living environment international strategic measures.

### **Living Environment Present Situation**

Zhuzhou city is located in east-central Hunan province and the middle and lower reaches of Xiangjiang river, it perains to subtropical moist monsoon climate. Its average temperature is 17.6°C and its annual rainfall is 1280 mm. It is the rain heavy full regions in our country. The total area of Zhuzhou is 11272 km² which urban area is 536.7 km², the built-up area is 67.2 km², population is 80500, Zhuzhou is not only an important transportation hub in south China but also the key city ChangZhuTan region, an important industrial base and modern logistics center in Hunan Province

### A. Ecological environment

The ecological environment can be understood: natural environment for generalized, and the city environment resources carrying capacity, urban environment supporting ability etc definitely. Then we analyze the ecological environment of Zhuzhou City from soil, water, air and thermal pollution.

a. soil

We can have the analysis form the Cd, Pb, Hg, As and Zn, Cr, Ni, Cu heavy metal element in Zhuzhou, Cd, Hg, Pb heavy metal element exist pollution in the soil 0.2 m above the surface, while opposite in the soil 0.2m below the surface. Heavy metal pollution is mainly related to the Modern industrial and agricultural production and people's daily life, Once We test the cabbage of eight vegetables production base in Zhuzhou home. Heavy metals and pesticides are overweight. The main pollution sources is city industrial production and the waste of the residents. Chemical fertilizers of agricultural production and pesticides residues, the waste residue in Xiangjiang River basin mines, etc.

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b. water quality

Zhuzhou City is proud of its heavy industry, Industrial sewage water a serious pollution of rivers, the enterprise emit the black industrial waste into Zhuzhou Xiangjiang River which causes serious pollution of Xiangjiang Rivers, and brings distress to people surrounding the river.

In addition, the harmful elements from the mining mineral smelting in Xiangjiang River. The agricultural production heavy use of chemical fertilizers. The harmful substances of pesticides also pollute the river.

c. air

The atmosphere is an important part of living natural environment and Is the important material base which human and all the lives rely on. Air pollution, acid rain the ozone layer destruction has become a global concern three ecological disaster which can cause the global warming. As Changsha-Zhuzhou-Xiangtan urban agglomeration accelerate development of economy. Zhuzhou City encounters atmospheric pollution. It has become one of cities which suffer acid rain seriously. According to the remote sensing image data, the atmosphere of Zhuzhou City is bad, It Mainly focus on the Zhuzhou smelter, chemical plants etc on the north shore of Xiangjiang.

# d. hot-gas

Thermal pollution is very common in Zhuzhou City, We often call it "Urban heat island" effection. The strength of the effection is closely related to the speed of wind, the radiation of sun, the thickness of the cloud, excessive factory, crowded persons and traffic, man-made emission of heat, poor ventilation make the temperature of the city higher than the suburbs. It makes big effection to the city atmosphere and settlement condition, Heat source which exist in the industrial factory, commercial zone, living area emit much more heat which makes the heat island effection of Zhuzhou City increase, the heat will distribute when it is windy. therefore, the air of Zhuzhou is very bad, the Influence factors are the developments of the industry and commerce, density of population, We should reforest the city, arrange the industry area and settlement area rationally, make a good environmental planning, popularize the new technology, if such measures are well under way, the air of the Zhuzhou City will increase sooner.

# B. Social environments

The whole economy and culture system of the society generally, such as productive forces, productive relationship, social system, social awareness, social culture. It means the living environment particularly, such as family, labor organization, learning environment and other organization, the social environment make great effect to the development of the city, we can analyze the social environment of Zhuzhou City from the industrial environment, settlement

environment, public environment.

a. industrial environments

In the 1970s, Zhuzhou city which is confined by the economical system and terrain rely on the railway, Xiangjiang River and form several industrial group, It has poor binds to the original city confined by the terrain, Zhuzhou can only develop in the long area between the railway and Xiangjiang River, the central area of the original city whose great development is cut off by Xiangjiang River and railway.

b. settlement environment

Residential land which is very poor is focused in the central area of the original city, as the city develops, the original farm land is brought in the city, leaving the original house and residents' committee, such specific condition makes several problems:

delayed planning lack of basic installation poor healthy environment

c. Public building

The basic installation is very poor, We can analyse it from the traffic and fire control, in the traffic aspect, the block is very serious, in the fire control aspect, the water supplement command system is very slow.

### C. Humanistic environment

The humanistic environment are pluralism, as the society grows up, the humanistic factors vanish day by day, for the past few years, the humanistic problem is much more serious than the original area, such as:

- a. The subjectivity of the planning is very sole, We should enforce the planning of the landscape.
  - b. We spend too much in the handware installation.
- c. Highly dense settlement prevent the humanistic environment from developing.
- d. The engineer ignore the humanistic factor in the planning.

# **Particular Developing Strategy**

Aiming to such problems, We can improve three strategy in order to reach a international level.

# A. Protect the nature

The basic problems in the international development of Zhuzhou City are soil. Water, air and hot-gas. We should protect and utilize the natural environment to achieve the continuous development. 1. We should renovate the land of city and make a composite planning to improve the landscape Zhuzhou. 2. We should control the water pollution which is taken up by Hg, Cd, As, N, O to improve the water quality like ameliorating the drainage facility. 3. We should formulate the energy system and govern the hot pollution in order to improve the air pollution. 4. We should construct the

ecology area and protect the greenbelt so that we may improve the air quality.

### B. Advance-harmony

Zhuzhou City is an important industrial city in Hunan Province, is also an important transport hub and a the central city in Changsha-Zhuzhou-Xiangtan areas. Aiming to social construction problems, the solution is to keep balance, whether work or study, the cities or the countryside, industrial or agricultural construction, we should keep balance between all the aspects. First, industrial construction needs to adjust the industrial land layout; Second, we can establish new social organization structure in the city and strengthen community service facilities construction, a residential area and village scale, rational layout to realize the coordinated development between urban and rural areas; Third, in the infrastructure construction, we need to form infrastructure and public service facilities which is matching to central city to realize the intellectualized living environment.

#### C. Culture inheritance

Zhuzhou is an old industrial base with high and new technology industries, we should strengthen the overall planning which is based on yan dragon culture. At the same time, we should fuse the regional cultural basis, construct large regional public culture, the cultural art center, culture history museum, educational area, etc.

### Conclusion

The internationalization of the living environment is one of the important ways to promote the development of Zhuzhou City Soil, water, air, the heat are not only the elements of influencing the Living environment, but also reflecting the key of city internationalization. We should highlight the balance between natural environment, residents living, the public service facilities to reach the international standard of Zhuzhou living environment ultimately.

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# The Divergence of the Chinese Football Culture from the Perspective of Game Theory

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Abstract: The divergence of the Chinese football culture has hindered the sound development of Chinese football. Under the circumstance of the current frame of the national-wide system of the competitive sports in China, the "goal conflicts" and "information asymmetry and the multiple principal-agents" in the principle-agents model of the game theory and the pyramid profit are the hotbed of the emergence of the theory of moral hazard. However, they are one of more efficient methods to the local treatment for the local "disease" under this current situation. The analysis of the multiple principle-agents model of the Chinese football culture from the perspective of game theory suggest that the multiple principle-agents model is easier to lead to the goal conflicts and the contradiction of information asymmetry and results in moral risks. This model is the lesion of the divergence of the football culture. Therefore, it'd better to take the following suggestions in the construction of the Chinese football culture. First of all, to ensure a systematical principle- agents model, the extra organizations in this model system should be removed or the government and social organizations controlled by the central nervous system established. Then, the driving chain should be shortened and an axis management mechanism controlled by the central nervous system established. Next, the legislative process of the competitive sports should be improved and the enforcement of executing the law to crack down the illegal competitive sport behaviors accelerated. The supervision of the cash flowing should be increased in the construction of the football culture by the means of broadening channels of supervision though introducing the third party. Last but not least, the performance of the sports institution should be quantified and the assessment of the sports institution specified so as to monitor the omission of the grassroots organization.

Keywords: Multi-agents, goal conflicts, information asymmetry, remove of the extra organizations, shortening of agent chains

The divergence of the Chinese football culture impedes the sound development of the Chinese football as if it were a malignant tumor which is rooted and spreading at the development of the Chinese football. A great majority of government officials, experts and scholars and football fans have offered advice about the football development. Subsequently, the Chinese Youth football class have been to Brazil to intent to the enhancement of football skills and the foreign football coaches hired to teach the Chinese football players and the foreign football player introduced into Chinese football teams to create the atmosphere of football match and to simulate the rivals against Chinese football players. But, Chinese football have no breakthrough in the past decades, instead, the divergence of the Chinese football culture has seemed to be aggravated. In 2010, quite a few officials in the General Administration of Sport of Chines Football Association have accused of taking bribes and fixing matches and the football player claimed of throwing a game and referees sacked for cheating call, which shocked the whole sports circle. As a result, Xiong Douyan, the former professor of the National Sports Institution, organized a forum to discuss the issue of "Where is the Way of Chinese Football". In this seminar, some experts thought that there was a long way to go for the legislative

development of Chinese sports (Huang, 2012). Some questioned the "the nation-wide system" which was considered as the source of the divergence of Chinese sports. They analyzed the soccer gambling from the perspective of human nature and discussed the formation of the multiple obstacles for the football development at the aspect of ethics. Gong Bo (2012) believed that government-dominated institutional change should be coordinated with the social transformation and the gradual reform and mandatory system change be treated in a right manner. It was reported by Sun Ke (2012) that the main frame of the nation-wide system was the sports system with Chinese characteristics involving in the development of the competitive sports and was the policy and system made by the Communist Party of China and the state for sports development, thus, the transformation of Chinese competitive sports development model has been gradually improved. You Maolin advised that Chinese professional football club should adopt the "flattened" organizational structures and improve its operation arrangement relying on the management resource of the parent company and put forward the new model of the design of organization structure(Wang, 2005). Xiong Douyin held the belief that the formation of frame and the reasonableness of systems dangered the development of harmonious

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society. In the official report of the Beijing 2008 Olympic Games, Liu Peng, the director-general of the General Administration of Sport, on behalf of Chinese government, announced that Chinese sports will unwaveringly stick to the "nation-wide system". As a result, we can only analyze the divergence of Chinese football culture in the "nation-wide system" and offer advice to deal with this issue as the way that western doctors diagnose and cure diseases.

# The divergence of Chinese football culture and the connotation of the game theory

### The connotation of the game theory

The Game Theory, also called "Countermeasures Theory" or "Group Theory", was put forward by the German mathematician and philosopher Leibniz in 1710, which is mainly used for researches on the interaction between structures. It believed that as conflicts and cooperation exist in various social forces, the individual interest gained depends on the interaction between himself and others when the conflicts occur among many interest-subjects. The principle-agents relationship among the multiple subjects, the formulation of the application structures in the game theory, is used for the analysis of the divergence of football culture in this paper.

# The connotation of the divergence of Chinese football culture

Etymologically, the word of "divergence" is a neutral word, referring to the "disagreement" or "difference". The divergence of the football culture means the following undesirable phenomena in the competitive soccer games: fix-matching, unfair referrers, cheating ball, the football fan's disturbance, the frequent rename of the football club and the failure of expression of original intention for the football resulting from the match-fixing of the outsiders.

# The principle-agents among the multiple subjects

Several interest-objects with interests connected cooperate with each other in the framework of Chinese football culture, such as the national government, General Administration of Sport, Sports Management Center, Provincial Sports Team, Provincial Bureau of Sports and Provincial Project Management Center and Sports Work Team, Municipal Sports Team and Municipal Bureau of Sports, Sports Schools, coaches, players, referees and fans. Therefore, during the development of the football culture, conflicts occur among these above interest-subjects. On the other hand, the individual interest depends on both his and others' behavior. This dependence and conflicts belong to the behavior of the game theory. The current Chinese football situation reflects the results of the continuous strategy selection and the repeated game theory of many interest-subjects.

# The multiple principle-agents relationship built by the football culture

From the perspective of game theory, there are relationships between Chinese competitive sports game and the national government, the General Administration of Sport and the Sports Management Center concerned, which is called "principle-agents" in the game theory. National governments and the General

Administration of Sport provide a platform for the development of the competitive sports competence, display and the education and cultivation of the sports ability. This platform is the fruit of the selection and training of the various sports project centers and sports work team of the sport bureau governed by the General Administration of Sport. Therefore, contractual relationship which has one principle and several agents has been built between the national government and the General Administration of Sport, the Chinese Soccer Administrative Center, Provincial Bureau of Sports and Provincial Sports Management Center. In that principle-agent relationship, the "goal conflicts" and "information asymmetry" are the two major factors influencing on the human's behavior. On the one hand, national government, as the principles, wish the decision and behavior of the agents were consistent with their own goal and interests. On the other hand, the agents, such as the General Administration of Sport, the Chinese Soccer Administrative Center, Provincial Bureau of Sports and Provincial Sports Management Center, would like to gain the maximum interests with the minimum cost within the framework of the government policies. Agents will positively but won't fully implement the direction from government, as they have to pursue their own interests. The information asymmetry refers that the agents know some information that the principles fail to know. While, the goal conflicts means that there are numerous potential conflicts between agents and principles during the pursuit of interests as agents and principles have their own different interests to pursue. Subsequently, the General Administration of Sport and other departments concerned as the agents are likely to deceive assessment to again their own interests using some means that the national government cannot be observed, causing "moral risks".

The football club matches and the related activities are managed by the Chinese Football Association (CFA) and the Chinese Soccer Administrative Center. CFA belongs to the social organization which has no principle-agent relationship with national government. While the Chinese Soccer Administrative Center has built principle-agent relationship with national governments. Therefore, as social and official organization regulate the activities related to football club matches at the same time, it will lead to another divergence points emerging in the government's principle-agent relationship. The network beyond the divergence points is the room that is able to be manipulated by the vested interest groups but out of the government's control and is one of the channel for the legitimation of vested interests.

# The influence of the multi-agents caused by the divergence of the Chinese football culture

In Chinese football sports system, the sound principle-agent relationship, just as the eight systems of human beings, has conflicts and contradictions. It is developed during the conflicts and contradictions. The central nervous system is sensitive to and able to adjust to the pathology of every organization. Besides, other organizations will also support and help the sick organizations to be

healthy. Should an organization which is not controlled by the central nervous system be forced to implanted into a system, it would lead to the discomfort of every organization and the disturbance of the central nervous system and the disorder of nervous function, or even to the necrosis. As to Chinese Football Club, it is regulated by the Chinese Soccer Administrative Center and the CFA at the same time. Although double management system is feasible, it is horrible for the lack of central organization to control this system, as if an extra organization were forced to implanted to a normal person. Therefore, it is only when the government is able to clarify the principle - agent relationship that this double management system is feasible. Otherwise, that social organization would be a lesion to government organizations.

# Institutional source of the divergence of Chinese football culture

As national governments wish to win the prospective yield beyond the world average level with the investments under the world average level, it would be thought of excessive pursuit of their own interests and the potential trigger for the moral risks existed between all level of agents. Moreover, the defects existing in the mechanism design of supervision and restriction enable the agents to be depart from the goal of national interests to some extent, which is the institutional source of abnormal development of Chinese football culture.

# The failure of sufficient profits of the agents to the principles of Chinese football culture

# The insufficient profits of Chinese football sports to the grassroots organization

Chinese Football Association took the leader in the entity reform and the implementation of the professional football club in 1994. The professional football club which has been lasting for about 17 years, has made unremitting efforts to activate the passion of Chinese people on football and to lay a solid foundation for the football sports, especially by the means of media hype. However, notorious phenomena, such as the "cheating ball", "unfair call", "soccer gambling" and "fan's disturbance", are attendant with the state-owned enterprise soccer, league and withdraw of a race, the renaming and coaching change and football speculation of clubs. Moreover, how weird it is that China's national football teams is defeated by the South Korean team every time. China's national team fails to go out of Asia and go global. It was only when China hired the coach Boar Milutinovic with heavy investment that China's national football team had a chance to take part in the World Cup, only to get zero goal to reward that heavy investment and the passion of fans. The cultivation of soccer reserve personnel has also been hit with the dilemma of insufficient funs, recruitment difficulty, contradiction of learning and training and the limitation of employment choice. Chinese football sports has offered inadequate rewarding to the worker in the grassroots level and ordinary people as several officials and football players and referees were accused and punished because of the collective illegal activities in 2010, resulting in the bad reputation of the divergence of Chinese football culture.

#### The complain of private consortia to the Chinese football

The eighteen years of the Chinese professional football witness the frequent changes of investors and the constant renaming of the club. Such familiar clubs as "Dalian Wanda Group", "Yunan Hongta Group", "Sichuan Quanxing Group" and "Beijing Olympians" have been gradually disappeared. Zhao Benshan, one of the most famous essay actors in China, had invested in the Liaoning soccer. When withdrawing himself from soccer, he said to the media, "it is too difficult to predict the football future". Dalian Wanda involved in the recession of the Chinese football in 2010 had invested more than 600 million Yuan within three years, which made Wang Jianlin, the director of Wanda group and the member of the Standing Committee of the CPPCC, the focus of the football circle. He explained in a interview that the 600 million Yuan investment was only the experimental funds for testing what might become of the Chinese football within 3 years. He also shared his opinion on the unemployment of Camacho, the famous Spanish football chief, who was hired with heavy investment, "Even if the Chinese football team were led by Ferguson, there would be no difference, would there? ". It seems that he makes fun of the 600 million Yuan and play tricks on the Chinese football team. Thus, the private consortia are disappointed about the rewarding of Chinese football team.

# The unsatisfactory of Chinese governments with the Chinese football sports

Since Deng Xiaoping, the great figures of history, said that the development of Chinese football ought to start from the cultivation of Youth football players, Chinese football schools have sprung up but shrunk before long. Because the football students want to take college entrance examination but they are poor at grades, and they desire to be a member of national football team but are not able to go out of Asia due to being afraid of South Korean football team. On the other hand, the football schools is hard to have a bright future for the shortage of football training place.

China has invested huge money in football. Liu Peng, the director of the General Administration of Sport, said that the annual investment to the sports is around 800 million Yuan. The average investment on every Olympic gold medal, if so, is less than 15.7 million Yuan in the 29th Olympic Games with 51 gold medals (Liu, 2009). A comparison of the investments on Olympic games and on the Chinese Super League suggests that the funds invested on the every Olympic gold medal collected though "China sports administration" system is negligible compared with those invested on the football. The huge funds for Chinese football is intended to provide a platform for the cultivation and display and education of the ability of soccer players and to carry forward the national power and to activate the national passion, only to be in the dilemma of failing to go out of Asia and go global. Xi Jinping, the present state president, said that although China has the first class fans and the

unprecedented football market, the Chinese football team still need to make efforts to catch up the world football level when he was the vise present of China. Liu Peng also said, "As the lower level of Chinese football is out of keeping with the China's national comprehensive strength, a fundamental reform should be made in the Chinese football ". Liu Yandong, the Member of central Party politics bureau of the CPC Central Committee and the State Councilor, highlighted, "We should learn experience and take lessons from the development of the soccer in an attitude highly responsible to the country and the Chinese people and make efforts to find the source of hindering the development of Chinese football so as to come up a package of measures to promote the football reform based on our national condition, which makes a continuous contribution to the enhancement of the football level". The speech delivered by Liu Yangdong indicates that Chinese government - the principles - have not satisfied with the work of Football Management Center - the agent, as the bad performance of China League has not been improved since it started in 1994. Chinese governments are also disappointed to the rewarding of Chinese football culture.

# The optimization of the game theory relationship among multi-subjects

The optimization of the principle - agent relationship should be taken as a priority in dealing with the issue of this necessary game theory relationship.

# Removing the unrelated agent organization to ensure a full range of agent service

The General Administration of Sport belongs to administration department and is entitled with the administration rights which are protected by law, for it is designated by the State Council to be in fully charge of the management and operation of Chinese sport. The administrative unit of division level of every sport project built by the former China's National Sports Commission, on behalf of the representative of the China's National Sports Commission, was responsible for the management of corresponding sport items. on other words, it is the expansion of the authority of the China's National Sports Commission. These administration units have become the Management Sports Center, when a part of sports items took leader in the professional reform. However, they only changed their names instead of their administration rights. It is the soft environment of the construction of the Chinese football culture in which provides a framework for the construction of the Chinese football culture. While, the Chinese Football Association was founded in January 1st, 1995, with headquarter in Beijing, has the similar rights of the CFA on the management of the football sports, only to respond to the requirement of the Federation of International Football Associations (FIFA) - government has no right to interfere in football. Therefore, it is reasonable that the former is only a vest of the latter. The president of the CFA is nominal and not responsible for the ordinary affairs, which, instead, is charged by the vise president, i.e., the director of the Chinese Soccer Administrative Center. Thus, the CFA and the Chinese Soccer Administrative Center are not only athletics and referees but the governments and social organizations. Only when this confusing relationship are well understood can the full range of principle - agent service be ensured.

# Shortening the agent chain to construct a driving axle mechanism

It is imperative that introspection should be made on the withdrawal of football club when Chinese people envy the foreign "century-old football club" where they are willing to be "fans". A close observation to the process of the principle-agent service providing from governments and athletics maybe offer some clues. The interest differentiation and contention are two major factors for the reason of sports conflicts. As every interest subject is the agent and principle, the strange phenomena of "Local policies trump central government policies" resulting from the information asymmetry and goal conflicts should be constantly reduced and even eliminated so as to keep a balance of multiple games. It can be learned from our life experience that the length of a chain and the amount of components have a great impact on the judgment of a issue. It required that every channel should be checked when the whole chain is in disorder and that the supervision of tiny components will be omitted for the sake of overall management. As a result, driving axle chain has taken the place of the driving chain in the machinery industry, which not only reduces the energy loss consumed in the intermediate links but facilitates to the supervision. As to the construction of the Chinese football culture, national government should reduce the principle - agent channels by removing some sophisticated organizations.

# Improving the legislation of the competitive sports to strengthen the law enforcement in the illegal behavior of competitive sports

The legal construction of the competitive sports is relatively weak due to some objective historic factors. Subsequently, such notorious behavior as athletics involving football gambling and organizationally taking dopes are not able to be punished by means of law. With the professionalism and commercialization and industrialization of the competitive sports, the pursuit of materials is one of important goals to athletics, referees and clubs. Meanwhile, the improvement of the inner game rules and the construction of the outside law have not been caught enough attention. The moral issue in the competitive sport field is becoming increasingly severe without enough self-control and outside oversight. Although the moral education is vital, the psychological defense of human beings is too fragile to resist temptations without scientific and comprehensive rules and any tough punishment to the violators in a fair manner. That is to say, only with law, moral and various regulations can the competitive sports survive (Chen, 2008). Even though law is tough, numerous corruptions constantly occur as the wave-like one after another. The fact that the autonomy of the Chinese professional football is beyond the jurisdiction results in a dilemma that flaws exist in legislation but law enforcement lacks of initiative. Therefore, improving the legislation process and strengthening the law enforcement are a part of the construction of the Chinese football culture as well as of the harmonious development of society.

# Strengthening supervision of the cash flow of the construction of Chinese football culture by broadening the supervision channels

Excessive cash flow and bonuses are in flood in many clubs of the Chinese League. To avoid the surveillance of supervision departments, clubs resort to make false account to deceive supervision department. While, the supervision departments concerned relax their vigilance to the Chinese League which is thought of the newly emerge thing. While, the Chinese Soccer Administrative Center takes the attitude of "it is better to save trouble" toward the Chinese League, for the salary and bonuses are offered by the Chinese League. That is the source of the agent moral risks (Chen, 2009).

It should allow the ability of sportsman and media to full play in the reform of investment management for the construction of football culture. The four campaigns against the football gangsters suggest that the intervention of the judicial organs has a major deterrent effect, constraining the bad performance of the construction of football culture. Chinese national environment is similar to the international environment and seeking advantages and avoiding disadvantages is the nature of human beings. Therefore, supervision is necessary in the construction of football culture.

Introducing the third party to the construction of football culture not only expand the scope of supervision but broaden the channel for the expression of sportsman. With the involvement of the third party, the football players, referees and coaches are able to be disclosed the problems in the construction of football culture and express their opinions on it. The gray culture will disappear at last in a just and fair and open legislative environment.

# Quantifying the performance of the sports department though making a clear objects of assessment to supervision the omission of the grassroots organization

The good performance of programs, such as the light of Olympic games plan, nationwide fitness plan and the sports industry plan, should be considered as the assessment criteria for the examination of the sports administration departments. It is also of great importance to build a dynamic and quantitative standards for the assessment of the workers, the object of the construction of the Chinese football culture. Thus, the omission of the workers can be avoided

The reasons for the divergence of the Chinese football culture

are many. While, from the perspective of the theory game, the goal conflicts and information asymmetry caused by multiple principle-agents is the major factor for the divergence of the Chinese football culture.

To cope with the divergence of the Chinese football culture from a theory game point of view, efforts to the shortening of the principle-agent service chain should be made to reduce the channel of maximum of interests and the remove of the unrelated organization or the construction of the parallel existence of the social and official organization controlled by the central nervous system should also be encouraged.

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# Computer Assisted Language Learning: Esp Learners Attitude in Vocabulary Empowerment

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**Abstract:** A major development in computer-assisted language learning has been the expanded use of the computer as a medium of communication. This paper examines whether computer networks are indeed an effective tool for empowering second-language learners, focusing on vocabulary learning or not. However, none of the previous studies have specifically addressed the question as to how realistic a claim it is to consider computer technology as a replacement for the traditional increasing vocabulary knowledge in the classroom. Consequently the present study was designed to compare the effects of three kinds of different technical tools to see if they affect on EFL learners' overall vocabulary empowerment. To that end, a total of 44 English translation majors, who were learning English for special purpose as part of their studies at Payam Noor University, were administered Michigan English Language Proficiency Test as a homogeneity test was administered to establish that they were homogenous. As a second administration a modified version of Schmitt's vocabulary learning strategies questionnaire (VLSQ) was used in this experiment for pre- test and the post test. Finally, a series of paired-sample t tests was conducted to test the hypotheses of the study. The results indicated that technical tools can be considered as an effective item for a vocabulary empowerment.

**Keywords:** Computer Assisted Language Learning, eclectic view, genre approach; technological options, process approach, product approach

# 1. Introduction

Since the emergence of computer-based writing instruction, with the continual miniaturization of computers and the advent of microcomputers, CALL (Computer Assisted Language Learning) enthusiasts have always been fascinated by the degree to which computer technology can be used in the writing classroom to broaden the field's horizons. Despite the rather ambitious pioneering endeavors and the growing computer activities in language learning, little has been done in the development of a theoretical framework for the use of computers in the discipline.

# 2. The Importance of the Study

It is anticipated that this study will shed light on the benefits of using computers in language learning in general, and focusing on English writing skill in particular. Among those methods for language instruction, the traditional approach and the integrated approach have been quite popular in the past. In the traditional teaching method, language skills are isolated and taught individually. Research on the effectiveness of new technologies, particularly the use of computers in language teaching, has been an ongoing process. In addition, resources available to students and teachers through modern facilities, using CALL have been extended. Furthermore, this study was also designed by the aim of contribution to the field of computers in education.

This study also attempts to fill the gap between the theoretical and practical sides of using CALL in increasing the vocabulary knowledge of ESP learners. This study may help teachers by controlling their role as well as students by helping them absorb the structures and rules of learning vocabulary smoothly. Educators of language have advocated different approaches for the instruction of language skills. The findings may assist educators to design and insist on student-centered learning. CALL has the potential for individualizing instruction, with the main purpose of improving language learning. Finally, understanding the language learners' perspectives should assist EFL and ESL instructors and EFL and ESL curriculum designers in any future English designs that incorporate CALL materials.

# 3. Methodology and Procedure

One of the important aspects of using computer related to the educational instruments is in the area of teaching vocabulary. As it goes without saying, vocabulary learning has always been the challenging aspects of language learning through the history of language teaching and learning. Integration of a variety of computer-based activities in teaching vocabulary to second and foreign language teaching is figured out to be effective. Vocabulary learning is one of the critical issues being discussed in all phases of language learning and teaching, it can be due to the core building block for any successful communication to take place. Hence,

the lack of high vocabulary knowledge may hinder effective communication with members of the target community. Seeking in the tutorial CALL applications that are available now, it is clear that they are all able to function adequately as the e-learning system described in stage one. It is important to note that only some of them will actually give learners a comprehensive explanation for the selection of tasks and the order in which they are administered. Examination of essential factors such as attitudes could provide fruitful insights into the complex issues that are critical to success in language acquisition. Based on this the current study investigated the effect of computer assisted tools on Iranian ESP learners' vocabulary gain. A total of 44 male and female, who were selected out of 69 ESP learners, participated in the study. In order to get precise information about the participants' achievement in computer enhanced classes and to make sure about the involvement of all participants in doing computer-based activities, they were randomly assigned to four groups: one experimental group (one consisting of 22) and one control groups (the same distribution as the experimental group). The experimental groups were taught the passive voice via computer while the control group was taught the same vocabularies by the traditional method. Their age range was between 20-24. One experimental and one control group took part in this study. The study followed a quasi-experimental in a pre-test and post-test design. In order to compare the results of their performance, an independent samples t-test was conducted.



Fig1. The computer images are displayed on the board by the digital projector. The images then can be seen and all applications on the computer can be controlled via touching the board, either with your finger, or with an electronic pen/stylus.

The presence of such a high motivation among the learners in experimental group could contribute to their active involvement in the process of learning. This implies that computers have a significant role in motivating learners' involvement in the learning process. In language teaching and learning, we have a lot to choose from the world of technology: Video projection, Computers, CALL, Electronic Dictionary, Email, Blogs and Power Point, Videos or DVD's.

The last two decades have witnessed a revolution due to onset of technology, and has changed the dynamics of various industries, and has also influenced the industries and the way people interact and work in the society. This rapid rising and development of information technology has offered a better pattern to explore the new teaching model. As a result technology plays a very important role in English teaching. Using multimedia to create a context to teach English has its unique advantages. This paper tries to analyze the necessity of multimedia technology to language teaching and also brings out the problems faced by using these technologies. It also aims to make English teachers aware of the strategies to use it in an effective manner.

# 3.1 Samples of the Study

Two classes were purposefully chosen from the Ramsar PNU for convenience. In addition, the university was equipped with computer labs. A total of 66 junior students of PNU all male and with age range of 20 to 24 years participated in this experimental study. Consequently, students are supposed to have background knowledge and experience in using software. All of these participants were originally Iranian and English was a foreign language for them and Persian was the first language. The participants were recruited to voluntarily participate in an English language program. According to the scores of the homogeneous test (The Michigan English Language Proficiency Test) 44 students were ranked as low intermediate, 14 were ranked as intermediate, and 8 were ranked as high intermediate. For the need of this study the 44 participants ranked as low intermediate were held in this study. In the other steps, to divide students randomly in two class, they were ordered alphabetically and then every odd numbers were placed in class A, and every even numbers in class B. it is worth mentioning that class A was taught in the lab with English Learning Program while class B was taught in an ordinary method. In the next step they were asked to answer a modified version of VLSQ questionnaire for data collection.

### 3.2 Instrumentation

To implement this study successfully, we have developed two types of instruments: an achievement test (Michigan English Language Proficiency Test), and a modified version of (VLSQ) questionnaire. We administered the Michigan Test as a homogeneity test to establish that if the participants were all homogenous. The main data were collected by using a modified version of Schmitt's vocabulary learning strategies questionnaire (VLSQ). The questionnaires were submitted to a panel of eight experts who were lecturer in the English language and another panel of 12 individuals who majored in English education. The majority of these individuals possessed academic credentials

50 Aussie-Sino Studies Issue 3, 2015

at the level of a master's degree or above. The questionnaire was submitted to a panel of five experts who were instructors in the English language. These experts confirmed the relevance of each item and indicated no question in their view appeared irrelevant.

#### 3.3 Research Question

RQ: Does CALL/web-based Instruction and teaching via projection have any effect on Iranian EFL learners' attitude in vocabulary learning?

# 4. Data Analysis and Findings

The process of learning can also be qualitatively different through the use of advanced computing and telecommunications technology. For data analysis a series of paired-sample t tests was performed on the independent variables to ensure validity for this study and to determine whether there was any interaction between the independent variables with relation to the question as a whole. Integrating computers and web-based instruction into language learning process, which can offer a more powerful and authentic language learning environment, might be one of the ways to help ESP learners to satisfy their needs for learning. This section is devoted to the description of the statistical analyses which was considered to answer the question that formulated for the goal of this research. All the data were processed using the Statistical Package for the Social Sciences, version 18.0 SPSS software. The Michigan Test was given as a homogeneity test to 48 students at advanced level. The mean score of the students was 61.01 and standard deviation was 3.77. The descriptive statistics of this test is presented below.

Table 1 Descriptive Statistics of Longman TOEFL Test

Test	N	Mean	Std	
Longman TOEFL	44	61.01	3.47	

Hence the results of the t-test are reliable enough to be presented. In comparing the pre-test there weren't any significance differences available. In other words the two groups are homogenous in terms of their general vocabulary knowledge prior to the administration of the treatments. But as it is shown in table 3, in demonstration the results of the post-test scores, it showed that there are some differences between the experimental and control groups. However, the involvement of all learners, their enthusiasm to use the new technology in language learning and learners' positive

attitudes toward learning was apparent in the experimental group.

Table 2 Descriptive statistic of paired sample T-Test (Means and Std of Pre-Test)

Pre-Test	N	Mean	Std. Deviation
Experimental	22	9.04	45
Control	22	8.98	43

Table 3 Descriptive statistic of paired sample T-Test (Means and Std of Post-Test)

Post-Test	N	Mean	Std. Deviation
Experimental	22	16.97	1.29
Control	22	12.84	1.12

The question of the study asks about the existence of statistically significant differences ( $\alpha < 0.05$ ) between the students' achievement mean scores in vocabulary learning to the instructional method of teaching (contemporary & computerized). Descriptive statistics of paired sample test was performed to test the significance of the differences between the experimental groups who were taught the passive voice via computer and the control groups who studied the same vocabularies in order to use the contemporary method. As indicated in Table 3, there are statistically significant differences between the mean scores in the achievement test of both the experimental group who used the computer and the control group who were taught by the contemporary method. The mean scores of the experimental group is (16.97) while it is (12.84) for the control group. The difference between the two groups' mean scores is (4.13).

# 5. Evaluation of Students' Opinions about Modern Teaching Instruments

Unlike the primary whiteboard evaluation early researchers were unable to take a long-term approach, assessing impact on outcomes from using modern technology in the process of teaching and learning. However, an assessment was made of the link between the introduction of technological instruments and student perceptions of the quality of learning and teaching. These indicate a positive effect from the introduction of the technology on the learners' experience of classroom teaching. The table below reflects PNU juniors' views on their learning when teachers use an interactive instrument in teaching process.

Table4 Statement of ESP learners about learning English by Modern technology instruments

Statements about Usage of Modern Technology in Teaching (PNU students)	Agree/Strongly Agree
Power point and IWB's make it easier for the teacher to repeat and summarize	87%
I think teachers lessons are more prepared and organized when they use modern instruments in their teaching.	85%
Modern instruments like IWBs make learning more exciting and interesting	91%

It is easier to understand the work when the teacher uses projection system	82%
I think IWBs make teachers' drawings and diagrams easier to see	72%
I prefer lessons which are taught with CD's, PPT, E-mail and etc	86%
I learn more when the teacher uses an IWB	72%
We get to join in lessons more when my teacher uses an IWB or TV	66%

#### 6. Discussion

One of the most expanded areas in educational technologies in the second half of the 20th century was computers. In the late 1950s, computers entered the developed countries. Nowadays, computers and web-based instructions have become more interesting, faster, easier to use and also more convenient. They can process and keep more information, as well. The conventional learning environment is all about teachers, desks, books, papers, and chalks. The advent of new technologies such as computer and the internet has supplemented this conventional environment with new ways of learning. Technology might be one of the factors which may affect the teaching for special purpose. It provides opportunities for learning through media, from video projection, internet, and computer. Nowadays the use of the internet and computer is widespread; people from different places contact each other more easily than ever before. According to Ahmad, Corbett, Rogers and Sussex (1985), usage of computers mentioned certain advantages for language teachers as they permit teachers to process and present real-life situations with flexibility. Hence, computer and web-based instruction or internet connections make better preparation for education (Jones, 2002; Cabadaetal, 2009). Computer-assisted language learning (CALL) is the most important role that computer plays in teaching English and learning. Computer-assisted Learning means the use of computer programs to facilitate learning. According to Huizhong (1985), computer-assisted learning is when computer is used as a tool; to improve students' learning and to help them understand the content more efficiently. Web-based instruction can be considered as a "virtual teacher" for students because the students can get the instructional materials anytime and anyplace. In other words, it permits them to get the instructional materials everywhere even away from school. The present study seeks to examine the effects of computer-assisted language learning and web-based instruction on EFL Iranian learners', autonomy, motivation, self-efficacy, and critical thinking. Computers and Interne are important tools for developing autonomy through activities which help learners to study without assistance from teachers (Joshi, 2011). Computer technology has played an important role in the teaching and learning process around the world. Lockard, Abrams, and Many (1997) stress that "the computer is an inescapable component of changes now facing education in the United States, indeed

throughout the world" (p. 4). Today, computers are becoming an increasingly significant element in the teaching and learning of foreign languages and in the study of English as a second language. Mills (1996) reported that in terms of function, computers in language learning have two main tasks: mechanical and meaningful. However, the changes or lack thereof, over time, in how instructors and learners interact with technology will reflect the importance of the role of computers in education. Furthermore, instructional activities that motivate students to implement computer technology should also have a critical role in language learning (Warschauer & Healey, 1998). The increasing usage of computers in the past decades in human life has encouraged many to investigate their effectiveness as instructional tools. The unquestionable presence computers in all aspects of human life and the inner desire of human beings to enjoy learning through the use of computer educational games prompt the integration of computer-based games in ESP teaching and learning environments.

### 7. Limitations and Implications of the Study

There are some limitations in this research study. One of the main challenges was finding 42 homogenous students with suitable characters for the purpose of this study. Furthermore, the participants were selected from among the university students of English language and were roughly at intermediate level of proficiency. This implies that there might be limitations in the generalizability of the findings. In addition, the most important limitation was finding a lab which is equipped with computers and the internet. In this study, the sex of the students didn't take into account. This means that care must be exercised not to generalize the results beyond their proper limit.

### 8. Conclusion

The conclusions that can be drawn from this discussion are that tutorial CALL software has its place in language teaching. For the time being, it appears that its use will remain confined to the beginning and lower intermediate learners. In order to foster learner independence, CALL software, and other learning software could include content that aims at the development of critical thinking, learning strategies and other skills that make a successful independent learner. Further research is needed to learn more about computer earning networks, and in particular, to help develop pedagogy that can unlock their promising potential. It

appears that learners are able to handle a considerable amount of responsibility when it comes to the use of software tools. The results of the present study support the hypothesis that modern teaching instruments have a significant effect on English vocabulary learning of ESP learners. In one encounter, the participants demonstrated large gains in knowledge of vocabulary in association with using Power point and etc. Educational material that is interesting is also intrinsically motivating and should thus pave the way to successful learning.

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# The Cultivation of the Undergraduates' Soft Skills

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**Abstract:** The undergraduates' "soft skills" is of great importance to the improvement of the employment competitiveness of and the development of the career of the undergraduates. However, it remains to be improved, due to the historic and practical factors. Therefore, it is essential for the modern college students to focus on the cultivation of "soft skills" such as the social responsibility, the sense of ownership, awareness of learning, occupational transferring and communication ability, teamwork spirit, humanities and the healthy mentality. It requires that the college students and governments and college and society work together to achieve these goals. The object of this paper is to investigate the effective approaches to the cultivation of undergraduates' "soft skills".

Key words: Undergraduates, "soft skills", cultivation approaches

#### The Research Issue

College students have long been considered as the representative of the social elite and are the key for the construction of social class system. However, the lower employment is one of the hardest-hit to the college education and the issue of quality of the college education is a people's major concern. The college enrollment expansion is the cause of the employment difficulty. It seems to be reasonable that the increase of college students leads to the employment difficulty. Nevertheless, many statistics suggest that the lower employment results from two factors. On the one hand, the college students cannot either find a job or a proper job. While the other factor is that although the enterprises badly need the personage, especially to the senior skilled talents, they cannot recruit the needed senior in the labor market. The mismatch of demand and supply is the root of the difficulty employment of undergraduates.

To solve this problem, governments can promote the employment of college students by improving employment policies and colleges and universities make efforts to the strengthening of the recommendation of students. However, the basic measurement of employment difficult is to make a connection with the needs of enterprises and the literacy education of the college students. As a result, the college students can be developed to be the real social elite with the quality needed by the society and enterprises. It is prevailing that knowledge should be linked up with skills. However, with the development of the society, the evaluation criteria for the qualification of college students to a job no longer depends on the competence of college students, i.e.,

possessing the needed knowledge and skills, but lies in the willing and task achievement which have a connection with the occupational attitude and taste. In recent years, the occupational attitudes and tastes are summed up as the soft skills of the undergraduates to be different from the "hard knowledge" traditionally disseminated in the classes.

Society has been developed rapidly and profound changes undergone in terms of the social ideology and value orientation with the arrive of the Internet. It requires people from all works of life should provide good service and good experience in a highly efficient manner. To reach the goal of the better employment, college students should be a master of knowledge and equipped with professional skills and, above all, highly focus on the cultivation of "soft skills". However, the cultivation of the soft skills for the college students is still unsatisfactory because of the limitation of history and practice. So, to solve this problem, governments, schools, society and family should work together and college students themselves change their mind in employment and expand their horizon for a satisfactory career. In this paper, we are going to explore the effective approaches to the cultivation of the "soft skills" for college students.

### The Definition of the "Soft Skills"

"Soft skills", also called non-technical skills, is one of terms introduced to the Human Resource Management. It is relative to the "hard skills" that should be possessed by employees who devote themselves to a special area or make researches in a trade. It can also be called the individual comprehensive quality since it emphasis on the workers' occupational awareness and spirit. The competence needed

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by the professional posts in the modern society is not exclusive to the requirement of a post any more, instead, it is the common ground for the successful accomplishment of many occupational tasks, and it is also a kind of transferable skill which enables workers to quickly adapt to the changes of their posts so that they could smoothly fulfill their occupational tasks.

A great majority of scholars put forward their points of view about the definition of the "soft skills". Kantrowitz, an American scholar, defines it as non-technical skills, that is to say, the individual inner interpersonal communication skills and the application of technology to a work. It includes the following skills: communication and persuasive skill, performance management skill, self-management skill, interpersonal skill, leadership skill, political and cultural skill and the skills leading to the negative consequences. Kantrowitz (2005) thinks the "soft skills" is as important as the professional skills and applicable to various areas. This paper quote the definition of "soft skills" from Kantrowitz and specific it to be such comprehensive qualities as responsibility awareness, learning ability, communication ability, teamwork spirit and healthy mentality which are needed by the college students for the successful completion of the occupational tasks.

"Soft skills" is the combination of all behaviors, including various visible attitudes and motivations, which dramatically influence the people's work efficiency and quality. A research made by the Stanford Research Institute and Carnegie Melon Foundation suggests that the interpersonal skill or "soft skills" account for the two-thirds of the long-term success of a work, while the professional skill only accounts for one-thirds (Behm, 2003). Thus, although knowledge and professional skills are essential for college students to get a job, yet, the "soft skills" are indespensible for them to successfully finfish a job task and win the recognition and have a sense of professional achievement. The improvement of the "soft skills" is the key to the increase of the core competitiveness of college students under the circumstance of the college enrollment expansion and the employment difficulty.

# The Key Aspects of the Cultivation of the "Soft Skills" for the College Students in Modern Times

As profound changes bought by the Internet technology are underway in the present society, the requirements to people are complicated and comprehensive more than ever. College students at present, as the labors to enter into society, should follow the trend of the times and be possessed with the systematical and comprehensive "soft skills" so as to be the qualified workers. The following four "soft skills" will be thoroughly discussed in this paper.

### The Social Responsibility and the Sense of Ownership

The social responsibility is that the social groups or individuals have shaped their self-discipline consciousness and moral quality to take the social responsibility and fulfill diverse obligations in order to build a better society under a special social and historic circumstance and it is the recognition of social groups or individuals to the social values, loyalty, conscience and belief and the representative of individual values, attitudes and faith (Yu, 2010). Generally social responsibility means the ethical speaking, consideration and responsibility of every individual to the society in a given society. Individuals cannot isolate him from society and the pure independent individual is only an abstract person. Every individual should not only live for his desire, instead, he ought to have the sense of responsibility to others and society. Thus, a better and more beautiful society

The sense of ownership is attendant with the sense of social responsibility. As the saying goes that strong youths lead to a strong country. College students, as the individuals received higher education, are the mainstay of a healthy society. College students can not adhere to taking the right moral position and the justice into practice in their work and be willing to make sacrifice until they have the sense of social responsibility and the awareness of ownership. They would, if not, frequently change their job for their own sake and have weak sense of occupational responsibility and be indifferent to the society and indulge themselves in games and the virtual world.

# The Awareness of Learning and Occupational Transferrin Ability

The cycle time for the update of knowledge and technology is increasingly short with the technology changing with each passing day. The cycle for the update of knowledge of many disciplines are within two to three years and even shorter for some disciplines. For individuals, only twenty percent of knowledge learned during his college time is able to be applied to his work, and to make things worse, the failures of a great number of college students to find a job matching their specialty worsen this situation. Therefore, the life-long learning is essential to the modern workers to possess with the professional quality, for there is little possibility for workers to be a master of learning in a short time. The tenure is history as the division of labor is increasingly delicate and the frequent change of a position is much more common. Nowadays, a growing number of enterprises tend to favor for those employees who can efficiently integrate information and use it in a right and innovative manner and who have strong execution ability and are good at independent thinking and can be constantly innovation-oriented, while they dislike conservatives. From the perspective of update of knowledge and the change of occupation, it is much more advisable for the contemporary college students to be equipped with the awareness of learning and the comprehensive professional quality and the ability to transferring knowledge for a better career development in this employment situation.

### The Communication Ability and the Teamwork Spirit

As society is the attribute of human beings, it demands that mankind should be with good communication ability so that they are able to get a variety of resources and conditions for their life development. The communication ability includes the internal and external communication ability. The internal communication ability refers to taking with human beings themselves. The man who has a good internal communication ability will be with great wisdom and a healthy mentality to entertain himself and be harmonious with himself and independent and confident enough to deal with all difficulties. The college time is vital to the shape of personality for individuals. College students in this period of time will not be successful unless they are equipped with the independent personality and are full of confidence to their life. While the external communication, which means communicating with others and the environment, is often called "the interpersonal communication ability". With good interpersonal communication ability, a man can make a proper adjust and expresses himself fluently and correctly when the external environment and interpersonal relationship have been constantly changed. Furthermore, he will be win others' cognition as he has the teamwork spirit and is brave to take responsibility and willing to help others. At present, few position only involves in the business to be handled, and almost all the position are related to interpersonal relationship, especially to the emerging industries which demand high efficiency and better interpersonal communication ability. The good interpersonal communication ability is almost a byword to the high EQ in the recruitment of modern enterprises. Thus, the cultivation of communication ability and teamwork spirit should be highly emphasized among the college students.

# Humanities and the Healthy Mentality

The high quality of humanistic social science with literature, art, philosophy and history included facilitates to the enhancement of human ideological and ethical standards and the aesthetic taste and the expansion of human mind, enabling human to understand the world and society form different angles and levels. With high quality of humanistic social science, people are able to effectively fulfill a role change and be harmonious with the environment, helping them to be a senior in their work position. So, to have extensive knowledge in humanistic social science contributes to the increase of employment competitiveness and the

development of the career.

With the pace of modern life quicken and the stress derived from life and work increased, workers are required to be with anti-setback ability and the ability to accommodate themselves and to develop proper employment beliefs and healthy mentality due to the fasten life peace so as to deal with the relationship between competitive stress and employment motivation in a proper way. As most students are from the only-child family, they lost many opportunities to fight against difficulties and setbacks because of the protection of their family, thus, they are lack of a healthy and proper mentality to help them deal with crises. Quite a few college students lose their heart or even resort to extreme measures when faced with difficulties. The poisoning of a student by his roommate in Fu Dan University is one of the best examples. Therefore, it is vital to develop a healthy mentality for college students.

# The Main Approaches to the Cultivation of "Soft Skills" for College Students

The cultivation of "soft skills" for college students is a systematic project. It is not only related to the change of cognition but involves in the cultivation of higher education and the social environment and national policies. There are diverse approaches to the cultivation of "soft skills" in practice. Four major subjects have been discussed in this paper to explore the main approaches to the cultivation of "soft skills" for college students.

# Changing Cognition and Reinforcing Practice —Key to the Cultivation of "Soft Skills" for College Students

As college students are the subject of this project, the progress of this project is determined by the level of cognition of the students themselves from the perspective of the Marxism Epistemology. It is only when college students realize the importance of the "soften skills" to themselves and the shortcoming of their own "soft skills" that they will effectively improve their "soft skills". Otherwise, it is of little use to force them to do so. The relationship between the level of Human's cognition and the practice are interdependent and interactional. Only college students change their cognition of employment and reinforce their practice at the same time can they enhance their "soft skills". The change of cognition needs the help of teachers and parents and also demands college students finding their own shortcomings by strengthening the communication with the outside world. Therefore, they can improve their "soft skills" though constantly taking the new cognition into practice.

# Converting Concepts and Expanding Courses—the Heart of the Cultivation of "Soft Skills" for College Students

Colleges and universities, as the carrier of the higher

education, provide faculty, equipment and place to students and also spread the idea of education and create a good humanistic atmosphere for them, making a great contribution to the enhancement of their "soft skills". Chinese colleges and universities, influenced by the education model of Chinese middle schools, are old in their education ideas and teaching model, which discourages the cultivation of the all-round developed talents. Colleges and universities in modern times should follow the trend of times and actively shift their examination-oriented education to the education that focuses on the dissemination of knowledge and the teaching of skills, in hoping of becoming the cradle of talents. They also should spread the idea of the cultivation of "soft skills" throughout the whole college education and expand some activity curriculum and emphasize on the development of the students' studying and innovation ability. Thus, it is beneficial for students to learn knowledge and skills as well as to obtain better learning and living ideas. The pure learning can be converted into the learning of the way of study by means of organizing various club activities to develop the leadership ability and the sense of teamwork for students. It is advisable for colleges and universities to allow the students to take participate in social activities and to enhance themselves though absorbing the positive energy from society. Colleges and universities is not the shelter of delicate students but the ground for the students who are powerful both physically and mentally.

# Improving the Evaluation System and Adhering to Diversification—the Support of the Cultivation of "Soft Skills" for College Students

Although colleges and universities have a closed system for many years, the social evaluation and value orientation still have important influence in the development of the talents. The social value evaluation system has deeply permeated to the development and the achievement of the cultivation of the talent. The formation and development of the evaluation system in every times have its own cycle and will have a period of validation, however, colleges and universities is always the spring of the new idea and concept. The criticism of society over the innovation ideas and activities and fashionable dress has never been ceased. The criticism over the students in 1980s is one of the best cases. Social criticism will exert influence on the development and growth of talents by means of a variety of media. Nowadays, the diverse needs of society demand that pluralistic social evaluation system guide and create conditions for the cultivation of talents by creating a tolerant and diversified social atmosphere.

# Improving System and Optimizing Policies — the Security of the Cultivation of "Soft Skills" for College Students

Chinese education system, with decisions made from top to bottom and rights highly concentrated, determines the goal of talent development and model of colleges and universities. The basic reason for colleges and universities focusing on the exam-oriented education is that they have to adapt to the Chinese selecting talents mechanism with examinations as its major forms. Therefore, they are forced to guide college students to take many examinations to get various certificates so as to increase the employment rate and pass the assessments of the national education departments successfully. As a result, they could enhance their brand value to be dominant in the next recruitment. On the other hand, professors are supposed to be important to the cultivation of students. Nevertheless, professors and students, as two major subjects of colleges and universities, are busy with their own interests. How awkward it is. Professors are busy wining projects and making lectures, while, students spend most of their time on club activities and part-time job and romance. Classes where these two subjects can interact with each other is too quiet and lifeless. The underlying cause of this wired situation is the evaluation mechanism of college teachers. So, to get rid of the exam-oriented system and to cultivate innovative-oriented talents under such a system, China need to establish a proper education system and optimize polices from top to bottom to create favorable conditions for the growth of college students.

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# The Impact of Class Attendance on Final Examination Scores of Yemeni EFL Student Teachers

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Abstract: This study focused on research questions regarding (a) the extent of the relationship between class attendance and academic performance, (b) whether the student teachers' academic performance differ according to gender. One hundred and forty Yemeni EFL student teachers of a third level course, Morphology and Syntax, in the teacher preparation program at the Department of English in the College of Education at Sana'a University in Yemen participated in this study. Their ages ranged between 21 and 24 years. The results indicated positive and statistically significant relationships between students' attendance and their final examination scores in the Morphology and Syntax course. The more students attend class the higher in which they will achieve. The results also indicated that female students attended class more than male students and that was one of the reasons for the female students outperforming the male students in the academic performance. The study concluded that the number of days a student was present in class positively affected their academic performance. Based on the findings of this study, some pedagogical implications were suggested and for further research into the reasons for lower male attendance and performance.

Keywords: Class attendance, academic performance, gender

#### 1. Introduction and Theoretical Background

The present study was informed by some gaps and issues in the literature such as the scarcity of Arab based class attendance research as well as the debate regarding the relationship between class attendance and academic performance. Therefore, the relationship between class attendance and academic performance forms the backbone of the current study. It reports a study of a group of Yemeni EFL student teachers' academic performance in relation to their class attendance.

### Attendance and Performance

This section intends to shed light on findings of empirical research studies aiming at assessing the relationship between class attendance and academic performance. In other words, throughout the literature on second and foreign language teaching and learning, one can find some research studies that relate academic performance to class attendance. For example, some of the recent research studies have claimed that class attendance significantly affects the students' academic performance and grades. Al-Mekhlafi (2011) studied the relationship between class attendance and final examination scores in a writing course. His subjects were forty-four female EFL student teachers at Sohar University in Oman during the academic year 2009/2010. For collecting the data, the researcher used the final examination scores in a writing course and attendance records. The results of the study showed that the students who were absent fewer times in the course of Advanced Writing scored higher final examination marks for the course.

Based on their findings of a research study on an English course in the English department at Manouba Faculty of Letters, Arts, and Humanities, Tunisia, Ben Ali and Manouba (2014) reported the impact of absenteeism on the performance of Tunisian English students. They provided empirical evidence to confirm the link between absenteeism and students' academic performance. However, they were unable to prove that high rates of absenteeism make students' grades low.

Ozkanal & Arikan (2011) investigated the relationship between absenteeism and academic success. They analyzed 413 students' records of English, French and German classes at the Eskişehir Osmangazi University in Turkey in the academic year 2007- 2008. Their results indicated that when students attend classes regularly, they become successful whereas student absenteeism yields inadequate learning and academic failure. They also found that the level of success changes according to students' majors. That is a student's major is a significant factor contributing to his or her academic achievement.

Ajiboye & Tella (2006) investigated the influence of class attendance and gender on some undergraduate social studies students in the university of Botswana. 76 students participated in the study. Their results suggest that class attendance is a mediating factor in student's performance in a social studies course.

LeBlanc (2005) investigated the relationship between class attendance and the grade scores in the college classroom. 1588 students in four different colleges and in nine different courses through the academic years 1989 to 2003 participated in his study.

His results strongly suggested that a strong relationship existed between class attendance and test score averages. Furthermore, Moore (2005) concluded that high rate of class attendance correlates strongly with high rate of academic achievement.

Moreover, Klem & Connell (2004) support the view that the relationship between class attendance and student performance is a recursive one in which the students who are lower performing are more likely to reduce their attendance rate which in turn impacts their subsequent academic performance and so on until they drop out

However, Cohall & Skeete (2012) reported that the results of their study indicated that attendance, even though critical to the learning process, was not the single most important factor in the learning process and suggested that other factors were critical to academic success.

The documented relationship between class attendance and class performance made all the instructors at the Department of English at the College of Education at Sana'a University include a graded attendance policy in their syllabus. According to the Undergraduate Courses Handbook (2013), "a student who does not have a minimum of 75% of attendance for a course will not be allowed to take the final examination in that course". Thus, the instructors encourage their students to attend classes in a variety of ways. Some of them count attendance positively in grade determination while others assign some marks for attendance and participation in class.

In addition to the main advantage of attending classes which is believed to enhance learning, some other research studies have highlighted other advantages of regularly attending classes. According to Baloche (1998) class attendance provides students with the chance to socialize with their teachers and colleagues which enhances the atmosphere at the school. This intimate atmosphere at school consequently increases the students' motivation to learn the language (Warrington & Jeffery, 2006). Furthermore, Ben Ali & Manouba (2014) observe that attending classes regularly will result in the students' having the opportunity to go through all the curriculum contents. They also discuss and elaborate academic issues that do not exist in the class materials. Another advantage of class attendance according to Baloche (1998) is that the students get the chance to ask their instructors questions and receive answers to such questions which may results in deepening students' knowledge about the topics included in their syllabus.

With the increasing importance given to class attendance there have been many research studies, (Ben Ali & Manouba, 2014; Ozkanal & Arikan, 2011; Al-Mekhlafi, 2011; Cohall & Skeete, 2012; LeBlanc, 2005; Klem & Connell, 2004 among others) that have explored the relationship between class attendance and student academic performance. These studies have demonstrated that class attendance is positively correlated with academic achievement.

There is a significant body of research studies that have focused on the domains of general psychology (Clump, Bauer and

Whitleather, 2003), medicine (Hamdi, 2006; Cohall & Skeete, 2012), English (Al-Mekhlafi, 2011; Ozkanal & Arikan, 2011; Ben Ali & Manouba, 2014), economics (Caviglia-Harris, 2006; Andrietti & D'Addazio, 2012), social studies (Ajiboye & Tella, 2006) and multiple disciplines (LeBlanc, 2005) with the domain of linguistics receiving little attention. Therefore, in the present study, the impact of class attendance on the participants' final scores in a Morphology and Syntax course will be investigated.

#### Previous Studies within the Framework of Gender Differences

An area of interest to the present study is the gender differences in academic performance that has been reported in some recent research studies. For example, Ajiboye & Tella (2006) reported that gender has a significant effect on the students' academic performances in a social studies class. The male participants outperformed the female counterparts in the rate of attendance and academic performance. This finding contradicts the common believe that female students are better performers in language and social studies while male students are better performers in mathematics and science (Reis, 1998). Ajiboye & Tella (2006) argue that the main reason for the male students outperforming the female students is the fact that the male students attended more classes than their female counterparts and thus maximized their chances of success.

Nyame (2010) investigated the difference in class attendance and academic performance of Junior High School male and female students. Her results indicate that female students attended class more than male students. However, there was no statistical significant difference between the mean class attendance by male and female students. Furthermore, she tried to find out whether there was a significant difference in the performance of male and female students. Her results indicated that the male students did significantly better than the female students. However, she concluded that when the effect size was calculated it was found to be very small.

To explain why male students outperform their female counterparts, Lynn (2004) claims that males have larger average brain sizes than females and therefore, would be expected to have higher average IQs. One generalization about males as a whole is that they display a greater amount of negative social behavior than females in the classroom and this is thought to play a role in their academic performance (Downey & Vogt- Yuan, 2005).

On the other hand, some other studies have claimed that female students are more motivated and higher achievers than male students (Al-Emadi, 2003). In this regard, Al-Emadi (2003) came up with several environmental reasons why female students outperformed the male students. He claims that in the Arab culture, the socialization of boys and girls and the way of living partially explains the differential gender effects on academic performance. Furthermore, females are more restricted and confined to home, especially during adolescence than boys are and this seems to give females more time to work on school work than males who have more freedom to be outside of their homes. Thus, the focus of female

students on schoolwork is much more than that of the male students.

Some other research studies such as Ozkanal & Arikan (2011) reported that gender was determined to be an insignificant factor to affect academic performance and success. Ozkanal and Arikan concluded that gender does not play an important role in the relation between academic performance and absenteeism.

To sum up, the previous research studies on gender differences indicate that gender can have an impact on the students' academic achievement. These studies claim that female students often have higher ability than males in language and arts only, while male students have higher ability than females in mathematics, science, and social studies (Reis, 1998; Ajiboye & Tella, 2006).

### 2. The Present Study

#### Significance of the Study

An understanding of the relationship (if any) between the student teachers' class attendance and their actual performance in a morphology and syntax course is important because it can guide their trainers in working with those who have high or low class attendance. Therefore, the main aims of the current study were as follows:

- 1. To investigate the relationship (if any) between student teachers' class attendance and their final examination scores in a Morphology and Syntax course.
- 2. To understand the role of gender on class attendance and students' achievement .

### Study Questions

The following specific research questions were formulated to guide the inquiry:

- 1. Is there a relationship between the students' class attendance and their academic performance in a Morphology and Syntax course?
- 2. To what extent, if any, does students' academic performance differ according to gender?

### Study Hypotheses

The following hypotheses were formulated based on the above research questions. They make up the predicted results of the study.

- a. Class attendance is associated with high academic performance while high absenteeism is associated with poor academic performance.
- b. Female students tend to show higher academic performance scores than male students.

### Study Limitations

The scope of this study is limited in terms of the following aspects. It is based on the Morphology and Syntax course scores and the class attendance record. Furthermore, the sample of the study is limited to the Third Level student teachers in the Department of English, College of Education at Sana'a University in Yemen during the academic year 2013/2014. The participants were not chosen randomly, and therefore, caution should be taken in making generalizations from the results to other contexts.

#### 3. Method and Procedures

#### **Participants**

Using the total enumeration sampling technique, a hundred and thirty five students who were enrolled in a Morphology and Syntax course participated in the present study. They studied at the Department of English, Faculty of Education, Sana'a University in Yemen. They were enrolled in a four-year program (a total of 152 Credit hours) leading to a bachelor degree in Teaching English as a Foreign Language (TEFL). They had to secure a minimum of 50% in order to pass a course. Upon the completion of the requirements of the program, they would be granted a Bachelor of Education degree in the Teaching of English. One hundred and four (77 %) of the students were females and the other thirty one (23 %) were males. Their ages were between 21 and 24 and all were speakers of the same first language (Arabic). The student teachers were organized into three groups of about 45 students in each group. They were of mixed abilities in their English proficiency. Most of them were highly motivated and most of them were at the expected level, while a few of them were either below or above the expected level. They all attended seven courses of 19 credit hours per week for about 12 weeks of the academic year 2013/2014. The context of the teaching and learning situation is English as a foreign language (EFL) where the students are exposed to the English language only in the classroom.

### Morphology and Syntax Course

Morphology and Syntax, which is the main concern of the current study, is the third of seven linguistic courses the subjects need to take. It was taught by the researcher, a native speaker of the participants' first language (Arabic). The course was delivered in two ninety minute lectures per week over a twelve-week semester. The course has two broad sections: Morphological Analysis and Structural Syntax. It gives the student teachers certain simple tools to enable them to look at their own language more systematically and thereby be able to compare and contrast English and Arabic morphology. The section on syntax, in addition to giving them the necessary knowledge of the way English is structured, is intended to increase their confidence of their language use (Department of English, 2013).

The following are the aims of the Morphology and Syntax, one of the courses that the researcher teaches to the participants of this study. He shares these aims with his students in the first meeting at the beginning of the semester.

- 1. To acquaint students with the key concepts in morphology such as the notion of word and its structure: morphemes, allomorphs, roots, bases, stems and affixes.
- 2. To provide students with an overview of the most morphological processes and uses such as affixation, compounding, suppletion, reduplication, word formation processes, derivation and inflection.
- 3. To acquaint students with how words are organized in phrases and the relationships between parts of a sentence as well as

the notion of structural ambiguity.

The main textbooks for this course are Thakur (1997) and Thakur (1998). Through the integration of technology into the course, the student teachers were able to communicate with their teacher and with their classmates out of class by using Nicenet. They were also able to reflect on what they learn in class and during the week by posting on Nicenet.

### Attendance Policy

At the beginning of the course, the instructor explicitly announced the attendance policy to the students. According to Sana'a University polices, the student teachers were required to attend at least 75% of the total number of classes. Any student who fails to secure 75% attendance of classes in a course is deemed to not have satisfactorily participated in the course and will fail the course. The 25% of absenteeism was estimated to meet any mitigating circumstances that the students might go through such as illness or the death of a closed relative, etc. The instructor encouraged the students' attendance by making clear to them that testing would be extensively from material presented in class rather than material from the textbook. Attendance was taken at the beginning and at the end of each session by the instructor to ensure clarity in the attendance rates.

#### Instruments

#### 1. Class Attendance

The Morphology and Syntax course data were obtained from the instructor's class attendance record. Class Attendance is defined as the number of times a student is absent from class lectures according to the following scale:

Table 1 The Scale Used in Recording Class Attendance

Scale	Absent
6	0 time
5	1 time
4	2 times
3	3 times
2	4 times
1	5 times

# 2. Morphology and Syntax Final Scores (Achievement)

The researcher used the students' final scores in the Morphology and Syntax course during the second semester of the academic year 2013/2014. They were used as an indicator of the student teachers' academic achievement and they consisted of the following:

- Class Reflections on Nicenet = 10 %
- 2 Presentations in class = 5 %
- Participation (Tasks)= 5 %
- Mid Semester Test = 10 %
- Final Examination = 70 %

The Mid Semester Test and the Final Examination were developed by the course instructor (the researcher) and they contained multiple-choice and essay questions covering the course of Morphology and Syntax. The researcher made sure that the examinations covered material that was taught inside the classroom and was appropriate to the department course objectives. They were obtained from the university records increasing the reliability of such information (Wilson, Ward, & Ward, 1997). The scale used in giving the final grades is shown in Table 2 below:

Table 2 The Scale Used in Giving the Final Grades

Marks	Letter	Scale	Grade
90-100	A	5	Excellent
80 - 89	В	4	Very Good
65-79	C	3	Good
50-64	D	2	Pass
0-49	F	1	Fail

#### Data Analysis

Using the Statistical Package for Social Sciences (SPSS) Program, the data obtained from the instructor's class attendance records were coded and analyzed according to the following scale: 1 (absent for 5 times), 2 (4 times), 3 (3 times), 4 (2 times), 5 (1 times) and 6 (0 time) (research question 1). Similarly, the data obtained from the final results of the Morphology and Syntax class were coded according to a five point scale as follows: 1 (the student's score is 0-49 marks), 2 (50 – 64), 3 (65-79), 4 (80 – 89) and 5 (90 – 100 marks). Then, basic descriptive statistics (frequencies and percentages) as well as Analysis of Variance (ANOVA) and Pearson correlation coefficients were computed. The significance level in this study was set at p<0.05.

# 4. RESULTS AND DISCUSSION

### Class Attendance

The main focus of this study was to determine if there was a significant, positive relationship between class attendance and student achievement in the Morphology and Syntax class. Class attendance was measured by the number of times a student was present in the class while student achievement was measured by the final scores the students achieved in the course.

The examination of data collected through the class attendance record permitted a description of the student teachers' frequency and percent of absenteeism. Table 3 below presents the distribution of the student teachers according to their frequency and percent of absenteeism.

With regard to the student teachers' frequency and percent of absenteeism at class, Table 3 above shows that 30 student teachers (22.2 %) attended all the twenty four classes while 22 (16.3 %) absented themselves from the class only one lecture. The table also shows that 15 student teachers (11.1 %) absented themselves from the class two times, 18 student teachers (13.3%) were three times absent from the class, 17 students (12.6%) missed four classes and

the remaining 33 (24.4 %) missed five of the twenty four lectures.

Table 3 Frequency and Percent of Absenteeism

Category	Frequency	Percent	Cumulative Percent
Absent 0 times	30	22.2	22.2
Absent 1 times	22	16.3	38.5
Absent 2 times	15	11.1	49.6
Absent 3 times	18	13.3	62.9
Absent 4 time	17	12.6	75.6
Absent 5 time	33	24.4	100.0
Total	135	100.0	

The average student teacher missed 2.51 of the 24 class days, or 10.45 percent of the classes.

#### Students' Performance

The examination of data collected through the final examination performance records permitted a description of the student teachers' performance in the Morphology and Syntax class. The frequency and the percentages of the student teachers performance in the course are given in Table 4 below.

Table 4 Frequency and Percent of Students' Final Examination Scores

Category	Frequency	Percent	<b>Cumulative Percent</b>
Excellent	10	7.4	7.4
Very Good	21	15.6	23
Good	43	31.9	54.9
Pass	42	31.1	85.9
Fail	19	14.1	100.0
Total	135	100.0	

With regard to the participants' academic performance, Table (4) above shows that 10 student teachers (7.4%) scored excellent (90% and above), 21 (25.6%) scored very good (80–89), 43 student teachers (31.9%) scored good (65-79) in the final examination, 42 student teachers (31.1%) scored a pass score (50-64) in the final examination and the remaining 19 (14.1%) failed the course because their final marks were below 50.

The participants' final examination scores in the Morphology and Syntax class averaged around (67) marks and they obtained an average of (2.86) out of the five-point scale and a final overall course grade of C+.

#### Answering the Research Questions

To answer the first question of this investigation, the Pearson Correlations coefficients were computed as to investigate the relationship between the students' class attendance and their final marks in the Morphology and Syntax course. Table (5) below presents Pearson correlation coefficients among all the variables used in the study.

Referring to Table 5 above, the final examination scores of the Morphology and Syntax class correlates positively and significantly with the student teachers' variable of attendance (Attend). These results seem to show that students who are absent fewer times from classes score higher final examination scores in the Morphology and Syntax class. Based on the results of this study, we can conclude that the student teachers at Sana'a University are more likely to obtain higher course grades when they attend classes and participate in the class activities. Accordingly, the null hypothesis is rejected and the alternative hypothesis is accepted.

Table 5 Pearson's Correlation Coefficients between the Variables of the Study

		Gender	Attend	Grades
Gender	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	135		
Attend	Pearson Correlation	0.316(**)	1	
	Sig. (2-tailed)	0.000		
	N	135	135	
Grades	Pearson Correlation	0.175(*)	0.440(**)	1
	Sig. (2-tailed)	0.043	0.000	
	N	135	135	135

This finding lends support to the finding reported by (Ben Ali & Manouba, 2014; Ozkanal & Arikan, 2011; Al-Mekhlafi, 2011; Cohall & Skeete, 2012); LeBlanc, 2005; Klem & Connell, 2004) among others who concluded that class attendance was positively correlated with academic performance. This result suggests that attending lectures will be considered more crucial for a course like Morphology and Syntax that has been described as a verbal based subject according to Gardener's (2006) theory of Multiple Intelligences. This may imply that the nature of the course may require the instructor to provide the students with much information about the course. Accordingly, frequent absenteeism of a student from classes will deny him or her the opportunity of benefiting from the instructor of the course.

The aim of the second question of the present study was to determine whether the student teachers' attendance and academic performance in the Morphology and Syntax class differ according to gender. To answer this question, the Analysis of Variance (ANOVA) was computed as shown in Table 6 below.

Table 6 shows that the average mean of the male student on the class attendance was 2.38 while the average mean of their female counterparts was 3.82. The mean scores of the male student teachers and the females were compared using an F- test. This analysis resulted in an F- score of (14.736) (P> 0.000). This means that the difference between the two samples was statistically significant at P> 0.05. The results clearly demonstrate that the female students scored higher on the attendance factor than the male students. This

62 Aussie-Sino Studies Issue 3, 2015

result implies that the female students attended more classes in the Morphology and Syntax course than the male students. Accordingly, the null hypothesis is rejected.

Table 6 Analysis of Variance (ANOVA)

		N	Mean	Std. Deviation	F	Sig.
Attend	Male	31	2.3871	1.92661	14.736	0.000
	Female	104	3.8173	1.78866		
	Total	135	3.4889	1.91173		
Grades	Male	31	2.3548	1.27928	4.177	0.043
	Female	104	2.8173	1.04987		
	Total	135	2.7111	1.11881		

Furthermore, the female students' scores in the final examination of the Morphology and Syntax course were statistically significant. The average mean of the female students' final examination scores was 2.81 while that of their male counterparts was 2.35. The F value was 4.177 and the P value was 0.043. This indicates that the difference between the two samples was statistically significant at P > 0.05.

This result does not lend support to the finding of Ajiboye & Tella (2006) who reported that their male subjects outperformed the female subjects. It, however, goes in line with the finding reported by Al-Emadi (2003) who found that girls are more motivated and higher achievers than boys. He argued that female students have more time to work on school work than males who have more freedom to be outside of their homes. Therefore, one plausible explanation might be that the focus of female students on schoolwork is more than that of male students. Unlike the female students, some of the male students may have to study in the mornings and work in the afternoons to support their families. The researcher noticed that in the 1970s- 1990s the Yemeni government used to give the students of the Faculty of Education financial support which resulted in that the male students did not need to look for jobs to support their families. Therefore, the focus of both male and female students on schoolwork was high. Thus, most of the high performers were males. These days, the female students in school and university levels outperform the male students.

The findings of the present study suggest that success in a college course such as the Morphology and Syntax course is dependent on some factors. More specifically, it is the student's attendance as well as his or her gender that is of most importance when predicting course scores. Motivation is also another main factor in predicting academic performance because the unmotivated students who are forced to attend lectures are unlikely to participate in the class activities or pay attention and as a result gain minimally from the course.

# Study Implications

Since there exists a strong relationship between class attendance and academic performance, the educational authorities should come out with effective measures to ensure that the students attend classes regularly. Furthermore, teachers need to motivate the students who do not attend classes regularly to increase their class attendance in order to perform better. Teachers can achieve this by exploring creative teaching strategies and technologies. The study indicated that there is a statistically significant difference between class attendance of male and female students in favor of females. The university authorities should try to reconsider some incentives to make the male students focus on their class attendance and schoolwork. Since high attendance rates are indicators of effective academic success, teachers should monitor student attendance in every class. They should also promote awareness of the important role that class attendance plays in achieving academic success. The findings of this study have proven that class attendance is a valid construct in the Yemeni context.

### 5. Conclusion

This study investigated the significance of attendance in the improvement of academic performance of a third year course, Morphology and Syntax, in the teacher preparation program at the Department of English in the College of Education at Sana'a University in Yemen. The results of this study indicated that a relationship exists between class attendance and academic achievement. The relationship found between academic performance and gender was explained by class attendance and that the focus of female students on schoolwork is more than that of male students who have more freedom to be outside of their homes. Unlike the female students, some of the male students may have to study in the mornings and work in the afternoons to support their families. Future research studies should examine some of the factors that account for low academic performance in male students in order to take appropriate measures to curb them and help them perform better in future.

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# Studies on the Thought of Education Modernization of Liang Qichao

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**Abstract:** The education thought of Liang Qichao mainly includes four aspects which are cultivating new citizen which is his education aim, advocating modernized education system, paying attention to the comprehensive education content, and emphasizing the combination of school education and social education. It has a pioneering significance on the construction of the modernized education system in China. Although after a long time, the flash points in his education thoughts still have realistic significance to the current education.

Key words: Liang Qichao, thought of education modernization, significance

#### Introduction

At the end of Qing Dynasty, it is an important period for China to transform into modernization. In such a background, Liang Qichao, with his own knowledge, carried out a reform of great significance on the national education at that time. After setting the ultimate goal of "cultivating new citizens", he vigorously promoted education modernization in China and achieved great achievements. Because of his systematic and rich knowledge, his education thought made contributions in the aim, institution and system, content and way of education. So he became the first who comprehensively and systematically studied the national problem in modern China, and committed himself to reform the national character and shape modern new citizen. At present, the education of our country is in the period of promoting the reform of quality education, so it is of great educational significance to discuss the thought of education modernization of Liang Qichao.

# The Origin of Liang Qichao's Educational Thought

As one of the earliest new intellectuals in China, Liang Qichao was the first thinker who advocated the modernization of China. He has made some achievements in carrying forward the modernization in political, economic, cultural, educational and other aspects. And he devoted his all life to the modernization of Chinese social civilization. The modernization of human beings is the premise of the modernization of the society. To cultivate modern people needs to rely on education. In Liang Qichao's education thought, the highest purpose is to cultivate new citizens with modern qualities. Meanwhile, his has made contributions in the educational institution, educational system, educational content and educational way. He has a very important significance in the process of China's education modernization.

Liang Qichao was born in a scholarly family, and there were all knowledgeable persons since his grandfather and his father was a private school teacher. His elders paid great attention to the education and fostered the patriotic sentiment of the coming generations, which became the motivation in the future for Liang Qichao to explore the modernizational road of Chinese education. Before the age of 18, Liang Qichao received Chinese traditional education which took Confucianism as the center of education. At that stage, he studied the four books and five classics and accumulated profound traditional cultural knowledge. At the same time, the thought of Confucian which pays great attention to personal qualities laid a foundation for his moral education thought in the future. After taking Kang Youwei as his teacher, he further deepened his traditional culture knowledge in the Wanmu thatched cottage established by Kang Youwei. The unique education ideas and teaching methods of the school also affected Liang Qichao and laid a foundation for his future educational ideological system. After that, he went abroad to study, and returned home in 1903. The western education system also had an impact on his education thought, but when he advocated Chinese to learn western culture, he stressed that the Chinese traditional culture still should be the foundation. Then, Liang Qichao has experienced his political career. During the period of warlords melee he understood all the social phenomena thoroughly, so he wanted urgently to advocate the thought of social modernization. In 1917, Liang Qichao retired from political field and began to devote himself to lectures and writings. The system of education thought basically formed in that period of time. In Liang Qichao's later years, he traveled around the country engaging in lecturing activities, calling on the students to cultivate selfpersonality. Through practical action he promoted the spread of education modernization thought until the end of his life.

Through a comprehensive survey of Liang Qichao, we found

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that the origin of his thoughts came from three aspects which were the traditional culture, the Western civilization and the reform thoughts of modern and contemporary times. From the aspect of traditional culture, he inherited the Confucius' philosophy of life, and formed thoughts of determination, personality improvement, and pragmatism, etc. However, on the basis of inheritance he has also improved them. He broke the three cardinal guides and the five constant virtues as specified in the feudal ethical code, and proposed unique integrated development; in addition, he also inherited the Confucius' thought of reform, and called on the society to carry out social regulation reform, and the democratic thought during Meiji restoration period also embodied in his educational thoughts; and Confucius' education thought of paying attention to moral education, teaching students according to their personality and enlightening and guiding which became the criteria of Liang Qichao's educational thoughts. The impact of Western civilization opened Liang Qichao's vision which made him begin to advocate the reformation of Chinese traditional system and academy by borrowing western politics, which became the cornerstone of "widely enlighten the wisdom of the people" in his educational thought. Through a comprehensive and systematic understanding of the thoughts of all aspects of the Western civilization, he finally returned to the traditional civilization because he thought that social reformation should be reformed based on the Chinese traditional culture. The new ideas in modern times have a great influence on Liang Oichao. In the aspect of educational thought, it has gradually formed the reform direction of changing imperial examination, setting up schools, and cultivating talents. After a series of changes and reflections, Liang Qichao has formed the idea of the combination of Chinese and Western, new and old cultures.

In general, the origin of Liang Qichao's educational modernization thought is the inheritance and development of the Chinese traditional education thought and the absorption and borrowing of the modern education thought, and finally form the Liang Qichao's education modernization thought.

# The Connotation of Liang Qichao's Educational Modernization Thought

The educational modernization is an activity of education which is established on the basis of modern science and technology, guided with advanced educational theory and can meet the learning needs of all the people. Its features are democratic, life-long and personalized. The main contents include the modernization of the education target, the education system, the education contents and the education methods. In this paper, Liang Qichao's educational modernization thought are interpreted from the four main contents of the educational modernization.

# The Modernization of Education

Liang Qichao believed that in order to make the country rich, the people should be stronger first, so he advocated that cultivating

"new citizens" should be the purpose of modernization of education, which is a question towards the feudal traditional elite education. He stood for widely enlightening the wisdom of people, and cultivating the vast number of ordinary citizens. This educational objective reflected the democratic nature of education modernization.Under Liang Qichao's education purpose of cultivating new citizen, the new citizen refers to the people who have national thoughts, awareness of rights and obligations, qualities of freedom, aggressiveness and self-respect. The Chinese traditional cultures shouldn't be abandoned while cultivating new citizens. Improving our national character should be based on the inheritance of the Chinese good traditional character, and the absorption of the advantages of Western civilization. Although Liang Qichao's educational goal was to cultivate new citizens, in different historical background, the standard of new citizens would continue to change, but the purpose of education was to cultivate talents, which would remain unchanged, and from his educational aim of cultivating new citizens, we can see the changes of his focus on education, so that the education object from the minority focused by traditional education transferred to a wide range of ordinary people.

# The Modernization of the Education System

Liang Qichao, by drawing on the modern education system of the west, advocated to learn from Japanese education system because Japan has the similar national conditions with China to establish the Chinese modern educational system. He founded the Imperial University of Peking, and he stipulated that the provisions of any county school in every province should be drawn by the general teaching and learning office of Imperial University of Peking. Before the Imperial Educational Ministry of China being established, the Imperial University of Peking would serve a function which should belong to the highest educational administration institution. Thus it can be seen that Liang Qichao's plan for the educational system of the Imperial University of Peking, in which he identified the nature and position of the university, defined the education goal and formulated curriculum setting, assessment methods and teacher training, etc. influenced the formation of the national education system. It is a earliest and most completed blueprint for central governmental university at modern times in China.

In addition, Liang Qichao also proposed a relatively complete system of modern national education system. According to the different ages of the students, the education period is divided into early childhood (kindergartens), childhood (primary schools), juvenile (middle schools) and adult (Colleges and universities), which is basically consistent with the division of modern education. At the same time, he also scientifically designed the length of schooling for each education period: two years for early childhood education, eight years' compulsory education for childhood, eight years for juvenile period, and three to four years for adult. Thus, the whole set of modern education system from the kindergarten to the University was basically formed, which has a pioneering

significance in the history of modern education.

According to the different types of education content, Liang Qichao set up different kinds of specialized education schools: Normal Universities, Naval Academies and Army schools, schools of politic and law, arts schools, and various schools of advanced industry and simple industry which were equal to the middle schools. Universities were divided into seven specialized departments which were science, engineering, agriculture, business, literature, law and medicine, and higher normal universities. This system of schooling period is similar to the modern education system on the level and structure, and is the earliest and relatively systematic modern education system in modern China.

In Liang Qichao's educational system, he made clear the nature and task of advanced education, proposed the implementation of free lecturing system; he put forward to set up schools according to different levels, and schools should choose the textbook according to the provisions of the nation; for educational appropriations, he stood for raising money by the schools or the provincial governments themselves to solve it.

#### The Modernization of Education Content

Liang Qichao attached importance to the completeness of education, and pursued personal comprehensive development, so, in the content of education he played attention to the all-round development of morality, intelligence, physique and aesthetic. In order to fully implement the content, Liang Qichao set up five aspects in the assessment standards of the education system, which were the body, knowledge, emotion, volition and self-consciousness. Under the influence of the Westernization Movement, some scholars at that time attached importance to study western science and technology, opened a number of military, technology and foreign language schools to train a few special talents for the rulers. Thus those people only paid attention to the study of technology and rejected other knowledge. Although this change was better than the feudal imperial examination system, it was still biased. Through practice and reflection, Liang Qichao proposed that learning from Western principle of "teaching, politics, art" that none of them can be neglected. He thought that not only western natural science, but also Western politics and law system and other disciplines needed to be studied and researched. So, when he set the teaching contents, he emphasized the importance of moral education, and the attention on intellectual education. From elementary education to University of higher education, the subject contents covered multiple fields, such as instrumental discipline, natural discipline and social discipline, which embodied the modern and scientific natures of educational content. He believed that education should be carried out comprehensively to improve the quality of people. This kind of education thought in the present still has practical significance.

# The Modernization of Education Method

The right choice of the education method is a key part to come

true the modernization of education. Liang Qichao's education method can be divided into two directions which were social education and school education. School education included normal education; social education included education for children (family education) and women.

Liang Qichao paid special attention to school education, and thought that it was the path to a stronger China. In his education system, the school education is divided into different stages and grades from the vertical point of view, different majors and subjects from the lateral view. In order to achieve the democratic nature of education, he proposed to implement compulsory education, requiring all school-age children must enter the school to study. At the end of Qing Dynasty and the early Republic of China, a thousand things was waiting to be done. The training of modernized teachers should not be ignored because only with the teachers who have modernized thought, the smooth progress of the modernization education can be ensured. Therefore, Liang Qichao paid more attention to normal education in setting of the education system, and he set up common normal school, higher normal school and normal university to cultivate teachers. He required that teachers should not only have solid disciplinary knowledge but also attach importance to teacher's morality and outlook on life, and he also required teachers to constantly strive for improving their own self-cultivation.

Firstly, in the method of school education, he opposed the traditional indoctrinating teaching, but advocated the inspiring type of teaching; secondly, he thought that teachers should teach students in accordance with their aptitude, guide the students to actively play subjective initiative, and carry out interesting education according to students' own characteristics and hobbies; thirdly, he advocated that education should combine the theory and practice for achieving the unity of knowledge and action and applying what they have learned. He also believed that the regulation of education and teaching is a process from elementary to profound, coarse to fine, and simple to complex, so children's education is a particularly important stage of education. Traditional education violated the regulation of education and teaching, did not pay enough attention to the children's education and inspiration and guidance. It was just paying attention to memory and indoctrination, even taking the corporal punishment method to educate. Liang Qichao's understanding on the regulation of education was very advanced and had an important modernizational significance.

In social education, Liang Qichao attached importance to the family education and female education. Family education was the enlightenment education for children, which played a key role in the whole cultivating process of the children, because the enlightenment education would accompany the children all the life, and have a decisive role on the development in the future. Liang Qichao himself attached great importance to the education of his children, so he was very clear about the importance of family education.

In family education, Liang Qichao stressed democratic education, and paid attention to dig the potential in children from

interesting education, which was teaching through lively activities. First, he thought that the interest is the fundamental motivation of learning, therefore, he opposed the old traditional cramming and forced education, and stood by the method of guiding the children to learn consciously through interesting education. Second, hardships and setbacks were alchemy stones of family education, parents should not spoil the children too much and better let them experience some hardships and setbacks, which is conducive to the cultivation of children's perseverance and character, making them develop a positive and optimistic attitude towards life. Third, democratic education was good for children to form independent style while doing things.

In family education, the proportion of the mother is much bigger than the father, so Liang Qichao believed that the key to success for family education was that the mother had higher knowledge accomplishment, so female education must be discussed next. In the traditional old thought, woman did not go to school, so the implementation of the female education was of great significance. Women receiving education can not only reflect the fairness and democracy of education, but also has a positive significance for the implementation of family education. It is good for family harmony, and at the same time can make their children's enlightenment education more scientific, and also contributes to the wide popularization of the heuristic education.

# The Practical Significance of Liang Qichao's Educational Modernization Thought

Although Liang Qichao's educational modernization thought was formed in the environment of late Qing Dynasty and early Republic of China, but it had pioneering achievements in the aspects of education objectives, education system, education content and education approach. So his thought had many flash points, which has practical significance in the contemporary era.

First of all, he advocated the establishment of schools and the extensive enlightenment of the national wisdom, and to improve the quality of citizens through emphasizing education which could promote the social development. This was also consistent with the national education policy at that time, which was to cultivate more outstanding talents so that social development could make greater progress. At the same time, he attached importance to the comprehensiveness of the talents' cultivation, and emphasized the importance of morality education, which conformed with the quality education advocated at that time.

Then, he suggested that education should be proceeded in an orderly way, and children's education needed to get more attention. Enlightenment education was the beginning of life education, which played a key role of education in the future. So the enlightenment education must be done well. The heuristic way should be used to guide children to find their own interests and advantages, then to carry out interesting education.

Next, Liang Qichao thought that education was teaching

students in accordance with their aptitude and combining theory to practice, instead of memorizing by rote. Both the enlightenment education for children and higher education for college students should combine with social practice, establishing a realistic, pragmatic style of study. He emphasized that education must face to the society, paying attention to the reality, uniting knowledge and action and applying what they have learned. Teachers should encourage students to develop strong ability of observation, let the students go to experience, and cultivate their ability to think independently.

At last, Liang Qichao's family education thought still has a wide influence hitherto. He paid much attention to children's education, and the education for his children related to every aspect of studying and life. Generally speaking, it has the following points: first, he paid attention to the patriotism education of children, through his own words and deeds, he set up a patriotic model for his children, and let the children develop deep feelings for the motherland being influenced by their father, then the children tried to do their best to use their knowledge to serve for the country; second, in science education, he advocated to utilize the interest to guide children to learn, letting the children develop the habit of independent learning, combining knowledge to the life practice, and achieving the unity of knowledge and action; third, in moral education, under the influence of traditional moral culture, Liang Oichao took the moral education of children seriously, and wanted his children to become persons who had independent personality, civism and was highly cultured and steeped in propriety. He pursued the all-round quality education, and emphasized to borrow western advanced ideas and educational ideas based on the basis of Chinese traditional thought and culture.

### Conclusion

Liang Qichao's educational thought took "cultivating new citizens" as the core objective. He emphasized the comprehensiveness of education, and played attention to the morality education. He also advocated the combination of school education and social education, which had pioneering significance in promoting the formation of the modern educational system in China. In particular, he attached great importance to the enlightenment education and the family education which has a very important revelation to the education idea.

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# On Cai Yuanpei's Physical Education Ideology

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**Abstract:** Cai Yuanpei, a great educator, revolutionist, and patriotic scholar of China, whose ideology proposed has made great contribution for the development of Chinese education and profound impact on later education. In this paper, the background and content of Cai Yuanpei's physical education ideology will be relatively researched; and the impact on people in Cai Yuanpei's times and promotion for development of physical education will be analyzed.

Keywords: Cai Yuanpei, physical education, social impact

### Introduction

Cai Yuanpei was born in Shaoxing, Zhejiang, who had made great contribution to Chinese education and democratic revolution. During his service as the president of Peking University, a series of reforms had been made, introduced many new ideas and new policies, changed the old education model of Peking University, which swelled the status of this university in the world. Cai Yuanpei also has many profound ideological thoughts, such as inclusiveness, academic freedom, militarism education, materialism education, moral education, world outlook education and aesthetic education, which are five kinds of educational thoughts and indispensible for education today (Yang, 2010). Then, Cai Yuanpei's physical education ideology will be briefly analyzed.

### The Birth of Cai Yuanpei's Physical Education Ideology

### Historical reasons

From the historical condition at that time, eastward spread of western culture and reform movements provided a good background for China's emphasis on physical education. With the deepening of reform, the proportion of physical education curriculum in China had been gradually increased. Cai Yuanpei was influenced by this thought, and plused his own education experience, who fully understood the importance of strong physique for the Chinese people. At the same time, under the influence of western culture, Cai Yuanpei fully absorbed the advance of Western thoughts, and put the physical education in the first place in school education.

#### Social reasons

Cai Yuanpei is originally a scholar of the Qing Dynasty. What he received is Ba Gu education (a traditional education model in ancient China) advocated by imperial court, emphasizing on loyalty to the sovereignty and sympathy to people, following the ceremony of monarch-subject. But after he was 28 years old, he began to contact with western knowledge and learn western culture with various opportunities. Under such influences, his education thoughts were gradually changing. He hoped to apply the advanced ideas of western culture to Chinese education, change the status of China. However, at that time, the Chinese people were under the oppression of the west, and were called as "sick man of East Asia". Under the pressure of social reality, Cai Yuanpei realized that if China wanted to be strong, the Chinese people should be strong first, and the strong body is the primary task. Therefore, when he carried out the reform of education in Peking University, he put the reform of physical education in the first place, aimed at through this kind of education, to stimulate the young people's patriotic education and action.

# Cai Yuanpei's Own Experiences

During the time he was the president of Peking University, Cai Yuanpei was also appointed as the Minister of education of the provisional government Republic of China. Because of this, he had a full understanding of the situation of China's education at that time. So, the moment he took office, he gave a speech on the new education model. In his speech, he made a clear view of his education thoughts. In the actual work process, combined with the conditions and

characteristics of education at that time, he put forward new policies which were suitable for school development. These greatly promoted the reform of school education in China in the early years of the Republic of China. Putting physical education in the first place in school education is closely linked to impact of the times. Therefore, the moment he took office, he put physical education in a very important position. Meanwhile, during his actual work time, he provided a series of convenient conditions for the development of physical education and applied them into actual education, which changed people's idea to physical education, and promoted people's enthusiasm of participating sports exercise (Gao, 1991).

# The Characteristics and Connotation of Cai Yuanpei's Physical Education Ideology

### The purpose of physical education

Affected by Cai Yuanpei's education thought, the purposes and main applying meaning of physical education are as follows: first, change the old system of physical education, return to the origin of physical education, redefinite the position of pysical education, change pysical education to promote the personal development. In the course of implementation, mainly introduce western education system, and focus on the overall development of students, to totally change the old education model which only emphasizes on the development of mental, ignoring the cultivation of physical strength; second, according to the law of physical development of young people to carry out physical exercise and training. Cai Yuanpei believes that the main purpose of physical education is to improve students' physique, to avoid excessively attention or neglecting the development of physical education. Juvenile years is an important stage for the establishment of the students' physical quality, which has a great influence on the physical condition of the students. The old education model determines the students' exercise program only according the nation's needs, which is harmful for students; third, cultivate a complete personality by using perfect physical education. From Cai Yuanpei's view, if the body is not perfect, the personality can't be perfect. So, there will be no achievement at all. Therefore, the strong physical quality is the basis for the continuous improvement of mental. In this way, using his own educational theory, Cai Yuanpei carried out a series of reforms on physical education of Peking University, which had profound impact and great contribution on the development of physical education

### The value of physical education

From overall analysis, physical education in school has a great guiding role in improving students' self quality and strengthening their development on physical and mental. During the initial period of the establishment of the Republic of China, according to the social conditions and interests of the bourgeoisie, students were advocated to take part in physical education to improve health, based on which a series of strategies were proposed to help the development of physical education in China. However, the bourgeoisie is strongly utilitarian and there is no effective guidance system. Then, the purpose of many people to participate physical is mainly for some flashy reputation or medals.

Faced with this situation, Cai Yuanpei proposed that the main value of physical is to make students have a healthy physique and provide a strong guarantee for their life and study. And the excessive utility of physical education will do great harm to students. He had ever pointed out sharply that the harm of utility of physical education. First, it is harm to students' health. Students pay too much attention to the development of one aspect of the body, so the overall development of the body can't be coordinated, which will cause physical impairment. If things go on like this, it is not conducive to the essence of keeping fit, but will hinder the healthy development. Second, it is not conducive to their comprehensive development. Students only focus on the economic interests of physical education, and think other education is not useful to them, therefore ignoring other education. Finally, it is harmful to students' mental development. Physical education itself focuses participation, so it is wrong to get interests by sports as a forte. However, there are a lot of people participate in sports activities driven by the pursuit of the interests. Although their sports ability has been developed, their gains and losses of the heart itself have been unable to complete for their attitude to sports. Win the match, they will be loved, and jump for joy; lose the match, they will be ridiculed, and abandon themselves. These will be devastating for their life in the future (Wang, 2002).

Therefore, from the above point of view, Cai Yuanpei's physical education ideology not only gives students the correct way of physical exercise, but also pays attention to the cultivation of their correct values, and has improved the value of physical education.

# The Specific Implementation Plan for the Reform of Physical Education

# To cultivate complete personality by physical education

A lot of ideologists of Qing Dynasty have carried on the reform to the old thought of that time, but few of them give a good position to physical education, and all the ideologies are unable to carry out the overall training of the students. Cai Yuanpei believes that the national education is an important part of the development of personality. To cultivate the complete personality in the national education, attentions

should be paid to the physical education. Cai Yuanpei once pointed out that China's educational ideas were not completely educational way, people cultivated by which, whose mental are not perfect. Also, he believes that our physical and mental have great potential, which changes as the external environment. How much space the environment provides, what extent people's potential will be able to play to

Mr. Cai Yuanpei also paid much attention to practice his educational thoughts. He took charge of physical education of some schools successively. In the actual work process, he adopted new physical education model which was more common and universal, and emphasizing its necessity repeatedly. These practices were also popular with the students. He had been involved in the establishment of the Chinese Education Association and presided over the work of which. In establishment of two schools, Mr. Cai made it clear that we should pay attention to the mental and military education, whose purpose was to stimulate students to uplift and exercise their bodies, between which physical education was more important. These provide a theoretical basis for the establishment of the basic status of physical education. After that, Mr. Cai went abroad for many times, adjusted the combination of the foreign means for physical education development and domestic physical education curriculum again. During the term as the Minister of Education, he pointed out the education strategy of five kinds of education, which are militarism education, materialism education, moral education, world outlook education and aesthetic education. Physical education, as a curriculum, is brought into the scope of the development of school, officially. Afterwards, although Mr. Cai did not actually participate in the process of physical education, his ideology was always practiced and improved.

### To increase the popularity of physical education

For a revolutionist, his focus is on the fate of his motherland. Mr. Cai Yuanpei is often worried about the state of the country and feels indignant and deeply humiliated about the evaluation foreigners made to Chinese. This is a main reason why he took charge in education, and promoted the development of education. He believes that the development of physical education is mainly by its popularity. At the speech in Nankai University, Mr. Cai said, foreign education paid great attention to moral, intellectual and physical education, but China was usually superficial to these. Although there are people who pay attention to education in the school, physical education of students aren't advocated fully because of the inertia. However, the development and advocating of physical education is a national activity. If only 1/1000 of the people pay attention to physical education, China's physical education will be no good development.

Therefore, Mr. Cai made it clear first that the development of physical education was important for the development of country and nation, and indicated that the new education model which put emphasis on physical education was determined by the situation of China's social development. After that, in the course of the operation of the physical education, for gymnastics development form is relatively simple, sports equipment is not complete, students are not active, Mr. Cai actively introduced all kinds of new movement models such as track and field, ball games, dragon boat races, swimming and so on, which provided more choice for students, added entertainment, gained a great development opportunity, and also provided a certain basis for the popularization of physical education in the whole country.

### To pay attention to women's physical education

Influenced by western thoughts, Cai Yuanpei objected the social situation at that time that women were inferior to men, advocated the equality of men and women's social status, requiring enough respect to the women. Therefore, he encourages men and women to study in the same school, receiving the same education. There is no exception in physical education. Mr. Cai is very concerned about women's physical education.

Cai Yuanpei expressed this view in female schools during the period of Republic of China. He believes that the completely personality education men and women received should be the same. The complete personality education has contributed to the country's prosperity. In the social conditions of that time, it realized men and women studied in a same school, which made great contribution to Chinese women's education (Ren, 1984).

Cai Yuanpei implemented women's physical education in the whole country, and developed women's talents in sports, conveying a lot of female sports talents. In the process of physical education, he made it clear that boxing was suitable for women to learn, and it was an effective way to self protection. So, he hoped it would be widely learnt by women. This thought was made extensive practice in the patriotic female schools. For the course of girls, he encouraged Chinese women to break away from the three cardinal guides (ruler guides subject, father guides son and husband guides wife) and five constant virtues (benevolence, righteousness, propriety, knowledge and sincerity) as specified in the feudal ethical code of the traditional Chinese women, to learn from the excellent women of the world, to enhance and improve physical and mental quality. These activities had an epoch-making role under the social environment at that time, which laid a strong foundation for improving the status of women and opening women's thought. And his concern and encouragement is the effective driving force for the development of women's physical education in schools of our country.

### Conclusion

From the above theoretical research, we can see that Cai Yuanpei's emphasis on physical education has close relationship with the social environment and his own understanding. The reform of physical education is also a bright spot in the history of the development of Chinese education, which points out a new direction for the development of our country's education. The reform of physical education has changed people's understanding on physical education, improved the status of physical education, and provided new contents and ways for school education. At the same time, Cai Yuanpei's social status is very high, and

his thought is popular with people. So it gets great spreading space, and has far-reaching impact on the society. His complete and comprehensive education method provides a powerful reference for the development of the education, and made a great contribution to the Chinese educational circle.

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# An Examination of the Gender Disparities in Education: A Case of SSSCE Results

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**Abstract:** Research shows that when more girls attend school and stay, there is a highly positive impact on their families, communities and economies. Yet, around the world, millions of girls face barriers to education, such as early and forced marriage, domestic slavery, sex trafficking, gender violence and discrimination, lack of access to healthcare, and school fees. Although Ghana has made impressive progress over the last two decades in promoting equality between girls and boys in their access to basic (primary) education, there are still persistent gender disparities in school enrolment and retention. This study seeks to examine the gender disparities in education in Ghana, analysing SSSCE results. The study is descriptive in nature. The mixed methods were used as a results of the different variables involve. 1999 to 2008 Mathematics, English and Science the three core subjects you necessarily need to pass in order to qualify into tertiary institution were analyzed. This study established that 1999 to 2008 saw an upward trend in enrolment in the Ghanaian High Schools. Starting with 57816 in 1999 and 131268 in 2008. A percentage increase of 56. The performance however was very poor all through the period with only between 6 and 13 percent of the High School graduates qualifying to the tertiary institutions from 1999 to 2008. The girls were almost always half the number of the boys sometimes almost thrice in each year.

Keywords: Examining gender, gender disparities, disparities in education, SSSCE Analysis

### Introduction and Background

Education is widely recognized as the gateway to economic security and opportunity particularly for girls and women. World figures in literacy relate a sorry tale. Of the 130 million 6-11 year-old children not in school - a majority - 60 percent are girls. The figures only go to show how in most regions of the world, especially the developing societies, gender bias impinges on girls' education Geeta (n.d).

Girls' education is an essential key for the economic and social advancement of individuals, families, countries, and the world. Education strengthens the economy by creating better workers for the labor force, helps to modernize a society, and to increase the health of children and adults (Benavot, 1989; Jacobs, 1996; Tunali, 1996; Sebnem, 2011)

Educational Reforms in Ghana in 1987, the Free Compulsory Universal Basic Education (FCUBE) in 1997, made the concern to promote gender and social inclusion, particularly the education for girls more pressing. First the education reforms initiated in 1987 raised the issue of gender equity by removing gender streaming in subjects in upper primary and junior secondary school. It also set norms for attaining equal participation of males and females throughout the educational system up to tertiary level. Despite the genuine political commitment to close the gender gap in enrolment rates, recent enrolment gains have been accompanied by a decline in educational standards Agyare-Kwabi (2013).

Although Ghana has made impressive progress over the last two decades in promoting equality between girls and boys in their access to basic (primary) education, there are still persistent gender disparities in school enrolment and retention. According to Agyare-Kwabi, the retention rates at the high level remains a challenge. Starting from adolescence, girls begin to leave school early so that boys outnumber girls in secondary school, with the disparity increasing as the children grow older through to tertiary education. The disparity between the choice of science and technology among boys and girls also continue to widen even at the high school or secondary level. Additionally, the school environment has a major impact on whether girls and or boys stay in school. This includes the quality of education that they receive.

In recent years, governments have focused on a drive towards gender parity in school enrolment, an agenda driven largely by the goal of meeting MDGs 2 and 3. Two of the 18 targets for the Millennium Development Goals (MDG) are focused on eliminating gender discrimination and inequalities in educational access and achievements at all levels by 2015. The big questions that needs an answer is: is Ghana really heading towards eliminating gender discrimination and inequalities in educational access and achievements at all levels? See (appendix 1)

The concept of women's empowerment was introduced at the International Women's Conference in Nairobi in 1985 where Empowerment was stated to be 'a distribution of social power and center of resources in favour of women'. The persistent low educational participation of girls has adverse impact on women's quality of life and empowerment.

Education of girls therefore, occupies top priority amongst various measures taken to improve the status of the girl child. Efforts have been made over the four and half decades of planned development to enroll more girls in schools to continue their education as long as possible Adya (2006).

Research shows that when more girls attend school and stay, there is a highly positive impact on their families, communities and economies. Yet, around the world, millions of girls face barriers to education, such as early and forced marriage, domestic slavery, sex trafficking, gender violence and discrimination, lack of access to healthcare, and school fees

The formulation of the policy of Education For All (EFA) in Jomtien, Thailand in 1990, and the Gender disparity can be in favour of boys or girls, but despite a general move towards greater equity, in many countries the disparity remains strongly in favour of boys. Disparity can be evident in access to education, in educational processes within schools, and in completion rates. In some countries, girls suffer in two ways: they have less access to education because of distance or unsafe conditions; and they are more likely to drop out, or be withdrawn due to economic or other extenuating circumstances, a need to look after an ailing relative, etc., even when they do have access Fehr (2003).

### **Research Objectives**

The study seeks to

- 1. Examine the rate of gender differences in students' qualification to the tertiary institutions in Ghana.
- 2. Investigate the percentage gender differences in the High school graduates
- 3. Investigate the success rate of the High School graduate in Ghana.

Hypothesis

H0: There are no significant gender differences in the number of High school graduates who qualify to the tertiary institutions in Ghana.

H1: There has been a significant improvement in performance of student in the SSSCE over the years.

Expected Outcome of the Research.

The expected outcomes of the research are to examine whether there are gender differences in performance in SSSCE examination with particular interest in students entry into tertiary institutions in Ghana.

The research will contribute to the ongoing debate on gender disparities in education in Ghana, Africa and the world in general.

### The Importance of the Outcome

The solution to problems lies within each problem (Harrison, 2013). The gender differences both in participation and performance in the three key subjects students necessarily have to pass in order to secure admissions into any tertiary institution in Ghana will inform stakeholder in education the kind of attention that should be given to the problem. The gender differences both in performance and participation established from this research will be empirical evidence which will enhance the Ghanaian understanding of the gender gap in education.

### Methodology

In view of the different variables involved in the study, mixed method design was employed and it was descriptive in nature. Mixed method study is a design in which multiple methods of data collection and analysis are used (Creswell, 2004).

The population of this study comprised all the candidates who wrote the WASSCE examination from 1999 to 2008, in Ghana. Purposive sampling technique was adopted and used to select student's performance in Mathematics, English and Science for the study. All the candidates within the period under discussion were sampled. The instrument for data collection was a proforma that enabled the researcher obtained the grades of students from West African Examination Council.

# **Method of Data Collection**

Grade points of students in WASSCE from 1999 to 2008 Mathematics, Science and English constituted the data that were used for the study and they were collected from West African Examination Council (WAEC). 1999 to 2008 data gives details of male and female students who qualified into tertiary institutions by obtaining an aggregate from A to C in Mathematics, English and Science.

# **Analysis of Results**

Year	Total number of Candidates for Maths, English & Science	Qualified Male	Qualified Female	Total qualified
1999	57816	2341 (4.05%)	1011(1.74%)	3352(5.8%)
2000	60140	3246 (5.4%)	1373 (2.3%)	4619 (7.7%)

2001	63395	2815 (4.4%)	1190 (1.9)	4005 (6.3%)
2002	68103	3312 (4.9%)	1711 (2.5%)	5023 (7.4)
2003	77217	3807 (4.9%)	2041 (2.6%)	5848 (7.5%)
2004	92252	7107 (7.7%)	3650 (4.0%)	10757 (11.7%)
2005	107335	6125 (5.7%)	3243 (3.0%)	9368 (11.7%)
2006	117834	9903 (8.4%)	4855 (4.1%)	14758 (12.5%)
2007	129652	8963 (6.9%)	4776 (3.7%)	13739 (10.6%)
2008	131268	11315 (8.6%)	5806 (4.4%)	17121 (13.0%)

Table 1.1

Table 1.1 shows the performance of students in English, Mathematics and Science from 1999 to 2008.

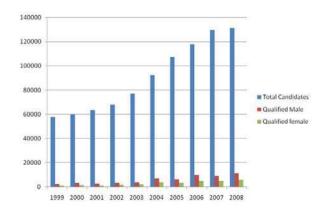


Fig. 1.1

Fig. 1.1 is a bar chart showing the performance of students in English, Mathematics and Science from 1999 to 2008.

A total of 57816 students registered for the 1999 Senior Secondary School Certificate Examination (SSSCE) and 2341 male representing (4.05%) obtained aggregates A to C the subjects you necessarily need to pass in order to qualify to the tertiary institution. 1011 girls representing (1.74%) obtained aggregate A to C making a total of 3352(5.8%) boys and girls qualifying by obtaining an aggregates from A to C to enter into tertiary institutions in Ghana. 60140 registered in 2000 and 3246 male representing (5.4%) obtained aggregates A to C, 1373 female representing (2.3%) obtained aggregates A to C and a total of 4619 (7.7%) boys and girls qualified by obtaining an aggregates from A to C. In 2001, 63395 candidates sat for the SSSCE and 2815 (4.4%) male obtained aggregates A to C, 1190 (1.9) female obtained aggregates A to C and a total of 4005 (6.3%) students obtained aggregates A to C. In 2002, a total of 68103 student sat for the examination, out of these, 3312 (4.9%) male obtained aggregates A to C, 1711 (2.5%) female obtained aggregates A to C and a total of 5023 (7.4%) students obtained aggregates A to C. In 2003 a total of 77217 students sat for the SSSCE and 3807 (4.9%) male obtained aggregates A to C and 2041 (2.6%) female obtained aggregates A to C

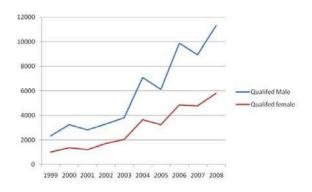


Fig. 1.2

Fig. 1.2 is a graph showing the performance of students in English, Mathematics and Science from 1999 to 2008.

making the total 5848 (7.5%). In 2004 a total of 92252 sat for the exam and 7107 (7.7%) male qualified, 3650 (4.0%) female qualified making a total of 10757 (11.7%). In 2005 a total of 107335 sat for the exam, 6125 (5.7%) male qualified, 3243 (3.0%) female qualified making the total 9368 (11.7%). In 2005, a total of 107335 students sat for the exam and 6125 (5.7%) male qualified, 3243 (3.0%) female qualified making the total 9368 (11.7%). In 2006, a total of 117834 sat for the exam, 9903 (8.4%) male qualified, 4855 (4.1%) female qualified making the total 14758 (12.5%). In 2007, a total of 129652 sat for the exam and 8963 (6.9%) male qualified, 4776 (3.7%) female qualified making the total 13739 (10.6%). In 2008, a total of 131268 students sat for the SSSCE and 11315 (8.6%) male qualified, 5806 (4.4%) female qualified making the total 17121 (13.0%)

### **Findings**

The years from 1999 to 2008 saw an upward trend in enrollment in general. Each year saw improvement in enrolment. The performance in general was very poor with between 6% and 13% of the High School graduates qualifying to the tertiary institution. However there was an

upward trend from both sides, that is female and male in the performance. 2008 saw the best performance of 17121 (13.0%): 11315 (8.6%) boys and 5806 (4.4%) girls qualifying to the tertiary institution. Both boys and girls have their best performance in that year.

### **Discussions**

This study has established that from 1999 to 2008 saw an upward trend in enrolment in the Ghanaian High Schools. Starting with 57816 in 1999 and 131268 in 2008. A percentage increase of 56%. The performance however was very poor with only between 6% and 13% of the High School graduates qualifying to the tertiary institutions from 1999 to 2008. The girls were almost always half the number of the boys sometimes almost thrice in each year. More girls were not able to qualify and for that matter enter into the tertiary institutions because of poor grades in at least one of the three subjects; Mathematics, English or Science. Though the performance saw an upward trend, the rate of progress in enrolment is not proportional to the rate of progress in performance. The performance saw a slow progress from 1999 to 2008.

### Conclusion

H0: The years under study, that is from 1999 to 2008 saw significant gender gap in the number of students who qualified to the tertiary institutions. The boys were almost three times the number of girls who qualified in 1999. 2000 wasn't different. The boys were more than twice the number of girls that qualified to the tertiary institution in 2000. The boys in 2001 were almost three times the number of girls who qualified. The boys were twice the number of girls in 2002, 2003, 2004, 2005, 2006, 2007 and 2008. Therefore H0 is nullified, there is a significant gender gap between the high school graduates who qualifies to the tertiary institutions in Ghana.

H1: The available data from 1999 to 2008 indicates that a greater percentage of the High school graduates do not qualify to the tertiary institutions. Though there are indications of gradual improvement as the years passes by, a good number of the students fail in either English, Maths, Science, any two or all three of them. Education in Ghana needs much more attention.

### Recommendations

Findings of this study, calls on educational stakeholders to the realization that the two of the 18 targets for the

Millennium Development Goals (MDG) which are focused on eliminating gender discrimination and inequalities in educational access and achievements at all levels by 2015 has still not been achieved. This research is calling on governments to be guided by the wise saying of Dr.Aggrey of blessed memory that we develop a nation by educating women. Thus, there should be improvement in effort at advocacy for policies at the national level that promote Science, English and Mathematics education for women.

Teachers at the basic level should be given regular in-service training to update their content knowledge and pedagogical skills.

#### APENDIX 1

#### MDG target 3:

Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

### MDG target 4:

Eliminate gender disparity in primary and secondary education preferably by 2005, and in all levels of education no later than 2015.

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# A Simulation on Welding Feed Table Base on NUC Control Algorithm

### Wang Qi

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**Abstract:** Welding feed table is an important part of the welding servo system, and its positioning control was of great significance to improve the welding quality. In view of contradiction between rapidity and stationary existed in conventional PID control algorithm. In this paper, an new biological intelligent controller (NUC) which is based on ultra-short feedback of mechanism of endocrine system is introduced, this controller increases the ultra-short feedback processing module compared with traditional PID controller. The processed signals and traditional control output signal are calculated by this controller, and nonlinear algorithm is formed. Finally, the adaptively adopt accurate control is finished on the position of welding feed table system. The results show that this new controller has many advantages such as good dynamics, fast convergence rate, high controlled resolution.

Keywords: Biological intelligent control, Servo control, feed table position for welding

### Introduction

Welding process is a highly nonlinear and time-varying process, which also has a lot of random uncertainties. In recent years, all position automatic welding technology has been becoming the development direction of welding technology. Therefore, in the welding process, building efficient welding feed table is the key to ensure the quality of welding and improve welding productivity. Precisely control of welding feed table position is achieved by the servo system. The precision of servo system largely depends on the control algorithm.

In recent years, scholars have done lots of research on welding automatic control system.

PID controller is mostly used in conventional welding feed table control system. Because the feedback control effect of the output signal controller of itself is rarely considered in traditional PID control algorithm, there are slow response, poor adaptability, low stability and other problems. Therefore, based on ultra-short feedback mechanisms of hormone regulation, ultra-short feedback controller (NUC) is proposed for welding feed table control system and compared with the traditional PID controllers in this paper.

### **Ultra-Short Feedback Mechanism of Endocrine System**

Neuroendocrine system has better adaptability and stability regulation of various hormones; it is the body's control center of various hormones. Human neuroendocrine regulation principles are very similar to the principles of feedback mediation of control theory. Hormonal regulation mechanism of feedback loops into conventional control loop and short regulation loop. There are conventional regulation loop and short regulation in feedback loops of hormonal regulation mechanism. The overall mechanism of hormone secret adjusting: first, the hypothalamus secrete pro-hormone releasing hormone (TH), and then TH stimulates the pituitary gland to release another hormone (RH), at last, RH stimulate the glands secrete appropriate hormones. General regulation loop is shown in Fig.1 as solid line. The corresponding concentration of the hormone in the body is back into pituitary and the hypothalamus by the various conductive factors or receptors, and pituitary and hypothalamus increase or decrease the secretion of TH and RH based on feedback. Ultra-short adjusting loop is shown as dashed lines in Fig.1 Hypothalamus, pituitary gland and will also play the role of self-regulation mechanism according to production of TH and RH and the corresponding hormones concentration. This complex feedback mechanism makes hormone secretion and regulation process fast and stable.

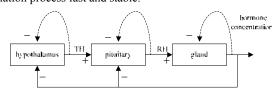


Fig. 1 Ultra-short feedback loop of endocrine system

### NUC controller for welding feed table

### Mathematical model of the welding feed table

The mathematical model of the welding feed table is known as:

Author: Wang Qi (1986-), male, master's degree, the main research field: intelligent control and embedded control system.

$$J_L \frac{d^2 X}{dt^2} + f_L \frac{dX}{dt} + K_L X = \frac{P}{2\pi} K_L \theta$$
 (1)

Here,  $J_L$  — Screw total inertia;  $f_L$  — Screw guide viscous damping;  $J_L$  — Screw mechanical transmission stiffness; p — Screw range;  $\theta$  — Output coupling angle. Then it can get the transfer function from formula (1):

in it can get the transfer function from form
$$G(s) = \frac{X(s)}{\theta(s)} = \frac{P}{2\pi J_L} \cdot \frac{1}{s^2 + \frac{f_L s}{J_L} + \frac{K_L}{J_L}}$$

The detailed transfer function of the system can be got from formula (3).

$$G(s) = \frac{121358}{s^2 + 719s + 762129}$$
 (3)

### The Structure of NUC Controller

Ultra-short feedback mechanism of the endocrine system plays a significant role in stable and rapid adjustment of hormone concentrations. In the conventional PID control algorithm, generally the state amount is as a feedback input signal to the controller, and the effect of the feedback of control output signal itself is rarely considered. According to the principle of the ultra-short feedback for endocrine system, the biological intelligent controller (NUC) based on the endocrine system is designed. The controller structure is shown in Fig.2.

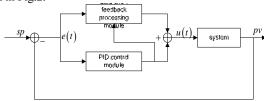


Fig. 2 Structure block diagram of ultra-short feedback controller

Ultra-short feedback processing module receives the signal  $u_c(t)$  of the traditional PID control module. After the treatment of nonlinear function f(u(t)), signal and traditional PID control module output signal is superimposed to play a role in controlling the output signal size. The ultra-short feedback nonlinear processing function is shown in formula (4).

$$\begin{cases} f\left(\Delta u_{c}(k)\right) = \alpha \cdot \left(\frac{\left(\left|\Delta u_{c}(k)\right|\right)^{n}}{1 + \left(\left|\Delta u_{c}(k)\right|\right)^{n}} + \beta\right) L_{1}L_{2} \\ L_{1} = -\frac{e(k)}{\left|e(k)\right|} \cdot \frac{\Delta e(k)}{\left|\Delta e(k)\right|} \\ L_{2} = \frac{\Delta u_{c}(k)}{\left|\Delta u_{c}(k)\right|} \end{cases}$$

Here ,  $\Delta u_c(k) = u_c(k) - u_c(k-1)$  , k -calculation steps,  $\alpha$  ,  $\beta$  and n are regulating factors. The value required to ensure that when  $\Delta u_c(k) = 0$ ,  $f(\Delta u_c(k)) = 0$  are established.  $L_1$  — the anti symbol value by the product of positive and negative control deviation and positive and negative control deviation

change rate.  $L_2$  —the direction of output control signals. The output of the controller is shown as follow:

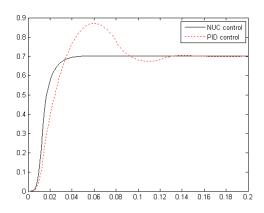
$$\Delta u(k) = \Delta u_c(k) + \alpha \cdot \left( \frac{\left( \left| \Delta u_c(k) \right| \right)^n}{1 + \left( \left| \Delta u_c(k) \right| \right)^n} \right) L_1 L_2$$
(5)

Here,  $\Delta u_c(k)$  -output value for the traditional PID controller. In order to verify the control performance of the ultra-short feedback bio intelligent controller (NUC). The simulation control was finished on a three stage liquid level control object and a two order pure lag control object in the paper, [6] and it has good control effect.

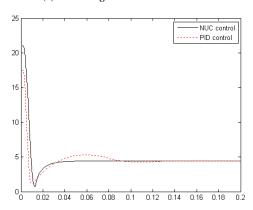
### **Simulation and Test**

For the simulation of welding feed table, it has implemented the NUC control algorithm programming in MATLAB environment, and has compared with the traditional PID control algorithm. Respectively, the control results are shown in Fig.3.

From Fig.3, there is almost no overshoot for status value based on the NUC controller, so it can set the stable target value 0.7. And for the traditional PID control algorithm, there are some shortcomings: such as large overshoot amount, low control precision, slow response time, etc.



### (a) The change curves of state variables



(b) The change curves of control variablesFig. 3 The control results of welding feed table

### Conclusion

In this paper, a new biological intelligent controller (NUC) which is based on ultra-short feedback of mechanism of endocrine system was introduced; the output signal of the NUC controller was first fed to an ultra-short feedback processing unit, and then the feedback processed unit

processes the signals according to the regulation of hormone secretion. A nonlinear control algorithm was constituted by superposition of the processed signal and output signals which are original control unit.

Finally, the adaptively adopt accurate control based on NUC algorithm was finished on the position of welding feed table system compared with the traditional PID algorithm. The results show that this new controller has many advantages such as good dynamics, fast convergence rate, high controlled resolution.

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# Does Lunar Cycle Affect on Egg Hatching and Moulting Frequency in Freshwater Crab, Barytelphusa Jucequemontii

### Dr. Sudha Bansode

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Abstract: Evidence is that the Lunar cycle entrain crustacean biological rhythms in briefly reviewed. Egg laying and hatching undergo semilunar and monthly rhythms that appear to depend on endogenous clocks. The lunar cycle can be understood in terms of adaptation and life post larvae n = 150 hatched during March 2002 and rared artificially. Their moulting frequency was monitored from day 112 post hatch to day 204 (CL = 20mm + 1.55 SD.) Daily moults (n=25) recorded individually during July, August and September showed an average duration for the first and second inter moult internal of 34 to 36 days respectively. Daily moulting frequency distribution showed and trend characterized by peak values around new moon and full moon in the absence of any tidal condition. The pattern for commonly rared female crab is more natural water temperature affecting the rhythm. However it is model or many average value of over 24 hours sampling period support the presence of semilunar cycle. The cycle is maintained under laboratory could sublittroral population that are not rhythm may represent the powerful clock that is retained for synchronizing events throughout the life history of crustaceans. It results in reduced preparation risks for hatchery in dark new moon night & favour dispersed during spring tides due to tidal carrent. This may enhance mutual protection against habits simultaneously juveniles.

Keywords: Lunar Cycle Affect, Egg Hatching, Moulting Frequency, Freshwater, Crab, Barytelphusa Jucequemontii

### Introduction

Lunar phase associated tidal cycle strongly affect on the animals of intertidal zone. Every concrete species can use air or water environment only. It leads to forming special biological clocks which controls activity during day-night in the freshwater (and not only) organisms. Such kind of biological rhythms can be illustrated in the constant laboratory conditions. In this report we present result of 3 years observations. It was illustrated that animals uses different tidal rhythms associated physical factors for orientation. It is current water mass motion, light, level of water pressure, etc. Invertebrates have resistance to the stress influence to many stress factors except one which they use for orientation. This case they are quite sensitive and chages phase of native circatidal (near - tidal) rhythm very quickly. Most of detected species shows hard temperature compensation and maintain rhythmic patterns of behavior in the large diapason of water temperatures. It was shown that some species have age dependent stability of rhythmic activity. For example in the Gammarus family (Amphipoda) tidal associated current water mass motions control of biological rhythms was observed. Most likely, Lunar phase associated tidal waves forming a water motion during the tidal cycle in the intertidal zone which strongly affects on the creation of circatidal rhythms. We changed native circatidal cycles of activity (12.4 h) of B. Jaquemontii in the laboratory aquariums by different water motion influences.

Ovigerous crabs were monitored in the laboratory to determine if the time of larval release is synchronoused and under endogenous control. To determine the time of larval release, ovigerous females were placed under a 14.10 light / dark cycle simulating the ambient photoperiod. Hatching was rhythmic, occurring as a quick burst lasting about 5 - 15 min shortly after the onset of darkness. An individual mole crab will release batches of larvae for up to three successive nights, suggesting that the rhythm is under endogenous control. Mole crabs monitored under constant low-level red light displayed the same release pattern with hatching occurring near the time of expected sunset, indicating the presence of a circadian rhythm in larval release. To investigate whether the female or the embryos control hatching, a portion of the egg mass (50 - 100 embryos) was separated from the female. The time of hatching of the detached embryos subjected to either a still or shaken treatment was compared with the hatching time of embryos still attached to the female. Detached eggs in both treatments hatched within 1.5-2 h of the time of the female attached eggs, which suggests that embryos control the timing of hatching.

### **Materials & Methods**

Ovigerous females were collected in freshwater during July - September 2001 - 2002. After collection, crabs

were immediately transferred to the laboratory and were kept in several plastic containers (70 cm X 50 cm X 40 cm, length X width X depth) containing a small quantity of diluted sea water (1-5%). The plastic containers were placed in the experimental room in which light and temperature were controlled.

The 24 h L. D. cycle is critical for maintaining the phase of the circatidal rhythm. In the field, the time of sunset shifts from 19:20 h to 18:15 h, and that of sunrise shifts from 05:00 h to 05:45 h, from early July and 12.5 h: 11.5 h L:D. in mid – September. In the laboratory, we employed similar photoperiods and phases to those observed in the field, i. e. a 15 h: 9 h L:D cycle (light off at 20.00 h and on at 05:00 h) or a 14 h: 10 h L: D cycle (light off at 19:00 h and on at 05:00 h). The intensity of illumination on the floor was 700-1200 lux in the light phase and < 0.05 lux in the dark phase. Temperature was constant at  $24 + 1^{\circ}$ C. In these conditions, the larval – release activity of the population clearly shows the free-running tidal rhythm, the phase of which roughly coincides with the time of nocturnal high tide in the field in the field for at least one month after collection.

They were kept separately in plaster contains, they were transferred to contain of (105 X 120 X 53 mm) light and 12 hrs 23 to 0.5 ca apair of eyestales of each were cut of at their bases with scissors on the following day after the fish laboratory moult occurred only earthworn food given to keep the uniformity of nutritive condition contain after initial moult. Crabs were fed at the schedule time and al. each feeding time enough food was given only the following 24 mm. In each experience either groups an wham which an fed every day (group A) every 3rd day (group B) every 5th day (group C) and warms to which no food is gives (group D). There own exoskeletons which were thrown off every molt however were crab removes from crab of all the group length of carapace days between each molt were measured through the three corrective molts.

The crab of body sizes 9.7.21.6 mm in length of carapace were classified into there groups after their initial moult crab which are for every day (group E) unfed (group F) a crabs which were dried one day after the initial molt. Their own exoskeleton were not fed to the crab of groups E & F. No. Food was given after the first moult till the dryness to eliminate the remained food in their digestive tract crab were dried of 60O c for more than 72 h dry weight was measured after cooling in desicator.

### Results

All hatching was monitored by the water exchange method. Female I frequently moved around in the plastic cage and immersed her body into the water from 01:30 h to 02:00 h on 3 September 2000, when 11.5% of crabs appeared

in the water (top panel) This female liberated most crabs (87.7%) by vigerous – release behavior between 02:00 h and 02:30 h. were all mature and swam. The median time of hatching distribution was 02:15 h on 3 September. The synchrony index (SI) was estimated as 43.9 in this female. A cluster if embryos that had detached from this female (detachment at 12:10 h on 2 September, middle panel) also hatched. Hatching peaked between 02:30 h and 03:h (median 02:15 h) on 3 September. Hatching synchrony deteriorated to an SI of 6.7. A second embryo cluster that had detached from the same female (detachment at 19:00 h on 1 September, bottom panel) also hatched and all crabs swam. Hatching peaked at 02:30 – 03:00 h (median 02:45h) on 3 September. The SI further deteriorated to 3.7.

The hatching of embryos attached to Female 2 peaked at 02:00 - 02:30 h (median 02:15 h) on 1 September (87.5 %). Larvae were liberated by vigorous - release behavior. The remaining 12.5 % appeared in the water at 02:30 -03:00 h on 1 September. (A small quantity of crabs often remains after vigorous release behavior. Such crabs are often liberated during a second episode of vigorous release behavior). An embryo cluster that has detached at 13:35 h on 31 August all hatched (middle panel), with hatching peaking at 03: 45 h on 1 September, with all crabs swimming (bottom panel). However, their hatching was delayed and peaked at 05:45 h on 1 September (SI = 3.6). As shown in these two females, the embryos that detached at least 1 day before larval release all hatched and swam. In contrast, no embryo cluster that had detached more then 2 days before larval release hatched in aerated water (not shown).

This total wet weight of eggs of 40 early-stage ovigerous females, i.e. with yellow eggs, from Cockburn sound and which covered a wide size rangs, was weighed to the nearest 0,001 g. The number of eggs in each of four replicate subsamples was weighted to the nearest 0.001 g. These dats were thenused to estimate the total number of eggs in each batch of eggs of each female. The relationship between batch fecundity (BF) and carapave width (CW) was described by using the equation InB [F.sub.j] = min C [W.sub.j] + b.

The number of batches of eggs produced by a full size range of mature females during the spawning period was estimated by determining the spawning period (SP), defined as the time (days) when > 5% of all mature females were ovigerous, and the proportions of ovigerous females among all mature females in sequential 10 - mm CW intervals during the spawning period. The proportion of ovigerous females ([ O.Sub.j.]) in the jth size class during this period also represents the average time a mature female in this size class is ovigerous during that period and takes into account the fact that an ovigerous female spawna at least once during

a spawning period and that the brood period (BP) of an ovigerous female is about 18 days at 20 [ degress ] C ( Meagher, 1971). Thus, the mean number of batches ( N[B.sub.j]) produced by the mature female crabs in the jth size class furing a spawning period (average water temperature 20.5 [ degrees ] C) can be estimated with the equation N [ B.sub.j ] = [ O.sub.j ] SP / BP.

The relationship between number of broods and carapace width was described empirically by fitting a modified logistic curve, NB = 1 + N [b. sub. Max]/[1+exp[-in (19) (CW)-a)/(b-a)], ranging upwards form a minimum of one batch to a maximum of 1 + N [B.sub.max] batches, where a and b are parameters. The total fecundity of crabs at different carapace widths was calculated as the perodct of batch fecundity, BF, and the number of broods, NB, by using the relationships between BF and CW and NB and CW, as described above.

The molt interval were most prolonged at the later molt & the crabs which were fed the least (Table – 1) In group C, the mean moult interval between the second & IIIrd moult was about two times as long as the interval between the initial & the first molts. It was also about two times longer than the interval between the second, the molts in group A.

This mean increase rate of carapace length, after each moult was the greatest in group A intermediate in group B & the smallest in groups C an F (Table - 2). At the first moult, the mean rate of increase in carapace length was 20.4 in a group A but only 10.7 in group D. At the third moult. It was 13.9 in group A but 4.4 group C.

Crabs surviving through the third moult after the removal of egestalle initial moult 14, 17 and 6 of 24 crabs at the time of the third moult and they were exculpated froms

the present data. All of the crab in the group D completed the first. Moult but 3 of there died after the first moult & all of the others died at the time of the second moult.

The mean rate of increase in compare length after each molt was plotted against the das following the initial moult.

Eggs recorded for a single batch of eggs under the abdomen of a female, ranged from 68, 450 in a crab with a CW of 84 mm to 324,440 in a crab with a cw of 154 mm. The relationship between batch fecundity (BF) and carapace width (CW) is described by the following equation: I BF = 1.82081 nCW + 3.2862.

The vast majority of previous estimates of the fecundity of crustaceans have been based on the number of eggs borne by females at a particular time which, in the case of multiple spawners, does not take into account the fact that larger crabs can produce two or more batches of eggs within a spawning period. The few previous attempts to obtain the total fecundity of crustaceans have involved tracking the number of batches of eggs borne by particular individuals at different times (e.g. Chubb et al.). The advantage of the approach developed during the current study is that it uses a combination of batch fecundity and an estimate of the number of batches produced during the spawning period by female of different carapace widths to determine the relationship between the total fecundity and body size of this spacies in a given population. Because the older crabs have a far longer intermolt period between copulation and egg extrusion than younger crabs, i.e. eight versus four months, they have a far greater amount of time to accumulate the energy reserves required to produce eggs. This difference accounts for the greater number of egg batched produced by larger than small crabs.

Table 1 Moulting frequency in B. Jaquemontii on full Moonday

Molt	Group A Fed Every day 14	G-B Fed Every 3 <sup>rd</sup> day 17	G-C Fed Every 5 <sup>th</sup> day 5	G-D Unfed 21
Initial to I & Ist	59 <u>+</u> 0.1	6.8 <u>+</u> 0.2	7.0 <u>+</u> 0.0	7.4 <u>+</u> 0.3
1 <sup>st</sup> to 2 <sup>nd</sup>	601 <u>+</u> 0.2	0.1 <u>+</u> 0.3	11.2 <u>+</u> 0.5	15.8 <u>+</u> 0.0
$2^{nd}$ to $3^{rd}$	7.7 <u>+</u> 0.3	$12.2 \pm 0.6$	14.8 <u>+</u> 1.1	-

The mean days of the moult intervals.

Data were obtained from the crab which completed the three corrective molts excepts. For the unfed (D). In this group all crabs died at the time of second molt. The numbers of individuals measured.

Table 2 The average compare length (molt) after each moult in crab. The average compare length (molt) after each moult in eyestalles crab. On New Moon day

Moult	Group A Fed Every day	G-B Fed Every 3 <sup>rd</sup> day	G-C Fed Every 5 <sup>th</sup> day	G-D Unfed 2
Initial	10.8 <u>+</u> 0.2 <u>+</u> 3	11.1 <u>+</u> 0.0	1.2 <u>+</u> 0.3	11.2 <u>+</u> 0.2

Aussie-Sino Studies Issue 3, 2015

1 st	13.0 <u>+</u> 0.3	12.9 <u>+</u> 0.2	12.4 <u>+</u> 0.3	12.4 <u>+</u> 0.2
1	(20.4)	(16.2)	(15.3)	(20.7)
2 <sup>nd</sup>	15.1 <u>+</u> 0.4	14.4 <u>+</u> 0.3	13.6 <u>+</u> 0	
2	(15.2)	(11.6)	(9.7)	-
3 <sup>rd</sup>	17.2 <u>+</u> 0.4	15.3 <u>+</u> 0.3	14.2 <u>+</u> 0.4	
3	(13.9)	6.3	4.4	-

### Discussion

Hatching of embryos shows a tidal rhythm, and the timing of hatching is controlled by an endogenous clock or pacemaker in the female. This study focused on the localization of the circatidal clock in the opticpeduncle of the eyestalk in the female. The treatments and their effects on hatching and hatching synchrony are summarized. No effects indicated that neither hatching nor hatching synchrony were different from those of the control group (embryos attached to the female in. In these females, hatched larae were liberated by vigorous begaviour. Synchrony with the nocturnal high tide was also maintained in these females.

Male and female B. Jaquemontii that was eyersall ablated in the spring on same, developed gonads larger than the intact contrils. This convured with the observed season of remoduration in the field. That both sexes were responsive to eyestalle ablation is not unusual & is supported by field observation of seasonal gonadal development. For this species as well as other species (Lindbay 1955, Berry 1971). The female on experienced responded to eyestalle ablation in a size (age) dependend manner vitellogenesis occurred only in eyestalle ablated animals greater than 70 mm carapoel length. There result indicate that - 70 mm length rocyhly apportunities the point of potential reproductive competemy. Field studies in collection region reveal that relatively few females below 70 mm catopael length bean external egg (Warver et as 1977; Davis 1975) others have reported ovarian development. In crustalegus taken place in stepwise manner first ovarian growth then vitelloyeneris both of which are controlled by eyertalle faltors (Charnia are cotton 1960). Furthnmens the sequenent pf ovanian development has been compaired to the somatic growth counterponl limit gennation where also controlled by eyestalle fastus (Adiyodi & Adiyodi 1970). Thus, sequential Stepown Sowade growth may be similar to development & vitellogenesis in the overles.

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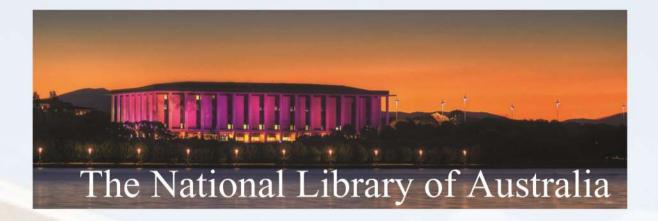
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