21st Century Academic Forum Conference

at the

Martin Conference Center

Harvard University
Boston, MA U.S.A.

March 17-18, 2014

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Indigenous Financing Modalities for Entrepreneurial Learning in the *Thakali* Community of Nepal

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Abstract

Entrepreneurship skill has become a major demand for every people around the globe. Everyone is directly or indirectly, an entrepreneur. A skillful entrepreneur can enhance one's economic status so that he/she can achieve a decent lifestyle. For a person to learn about entrepreneurial knowledge and skills, financing is an essential. There can be various modalities of financing for learning but this article is aims to explore the indigenous financing modalities which are practiced in the *Thakali* community of Nepal. This study also aims to find out the ways in which *Thakali* people become successful entrepreneurs in their community. In this ethnographic research paper, the *Thakali* community of *Thak Khola* of Mustang District was selected as a sample and used the constructivist approach of knowing the practical financing modalities for such entrepreneurial learning in the community. By the ethnographic study of more than four months in the sample community, it was found that every relative of a financially weaker member lent support to strengthen the financial status by encouraging them to have an enterprise. It could be compared with Complete local support model, Flat grant model and Equalization model of financing. Every *Thakali* is an inborn entrepreneur in various commercial sectors of the local community. The innovative ideas, the study found about enabling a successful *Thakali* entrepreneur, was uplifting a non-entrepreneur by donating cash-gift as financing model to gain the skills of successful entrepreneur.

Keywords: Entrepreneur, *Thakali* community, Skills, Financing

Introduction

This is an ethnographic study on indigenous financing modalities for entrepreneurial learning in *Thakali* community of Nepal. In this study, the conceptual framework was derived from literature and critical ethnographic study on embattled local *Thakali* community, basically from *Thak Khola* valley. "The term entrepreneur describes a creative and dynamic individual who develops products and sells them to the external market. The term entrepreneur describes the same creative and dynamic type of individual but one who operates within the large organization" (Davies, 2003). Nevertheless, the ability to being successful entrepreneur, different local financing activities was managed on the basis of different financing modalities in their community. Complete local support model, Flat grant model, Equalization model and Incentive grant model were also found as financial management tool to uplift the financial status within the community. Among different local financing activities, household business/animal husbandry, cultural ceremony/funds in the name of God, social saving and credit co-operative *Dhikur*[1] as well as cash gift to weaker members for uplifting were major objects to perk up the financial status. Pertinent financing modalities play crucial role to improve the status of deprived community. Likewise, there were different models of financing as per the socio-economic phenomenon. Nevertheless, this study is distinguishing in the way is uses the lens of four financing models, viz: Complete local support model, Flat grant model, Equalization model and Incentive grant model.

Objectives of the Study

- To explore the financing modalities practiced in *Thakali* community of *Thak Khola* valley.
- To find out the ways how *Thakali* people become successful entrepreneurs in their community.

The Community

Thakali is a Nepalese tribe also called Himalayan entrepreneurs. *Thak Khola* valley administrated six VDCs (Village Development Committees) Jomsom, Marpha, Tukche, Kobang, Lete & Kunjo. *Thakali* language is associated with Tibeto-Burman groups (Gauchan, 2005). Caste wise, they worship different clan Gods. *Gauchan*[3] worship *Lha: Langba Nhurbu*[2], *Sherchan*[3] worship *Lha: Ghangla Singi Karpo*[2], *Tulachan*[3] worship *Lha: Chyurin Gyalmo*[2] and *Bhattachan*[3] worship *Lha: Hyawa Hangjuyng*[2] (Gauchan, 2005). *Thakali* takes 0.06 percent (12,973) of total population (Population Census 2011, p. 60). Among them, *Thakali* language speaking population is 6,441 (49.6% of total) (Gauchan, 2005). *Thak Khola* is the place of origin of *Thakali,* but more than 80% *Thakali* live outside of *Thak Khola now* (Ibid). However, the major ethnic group of *Thak Khola* is *Thakali* (Population Cencus, 2011). The government of Nepal has implemented many successful development projects in *Thak Khola* and the valley now has a reasonably good infrastructure and basic services (Vinding, 1998).

The Economy

"*Thakali* earn incomes to cover these (taxes, religious ceremonies, marriages and entertainment) expenses through the sale of goods produced by the household, local business and trade, business outside *Thak Khola* and the sale of labour" (Vinding, 1998 p. 142). Travel trekking and adventure groups also are operated around this area. "In recent decades, incomes from the sale of cash-crops (especially apples) and hotel business have increased" (Ibid). "Studies of the Thakali refer to them as traders and businessmen" (Heide, S. 1988b, p.1 as cited in Vinding, 1998, p. 142). "..... It is important to note that while most *Thakali* are business minded, only a few are true innovators and venture capitalists" (Vinding, 1998, p. 137).

Local credit and savings associations *Dikur* made *Thakali* become successful investors, cooperative to foster economic status in the community. Vinding (1998) further stated that "Larger and comparatively equal" land holding is found in this community which helps for the standard living. Population growth is probably lower than the national average i.e. high opportunity of agricultural occupation. They are inborn business minded. They come from close-knit societies with strong traditional political organizations. They emphasize on education" (Vinding, 1998).

The Allocation Modalities

The term modality may be defined as the means or specifications used to implement a funding instrument (Jacob, 2013). Among the different modalities, basically, the following allocation models of financing were used for entrepreneurial learning in targeted community:
- **Flat Grant Model:** State grants without taking into consideration local taxpaying ability
- **Equalization Model:** More state funds allocated to area of less wealth models
- **Complete Local Support Model:** Support for the local community by the community
- **Incentive Grant Model:** Sustainability and cultural competency

In this research, researcher developed the theme in accordance with the defined modalities to compare the local financing activities. There was a special linkage between different modalities of financial components within this community. Wage labor, productivity, education and more prominently cultural management were used as ideal linkage for skill formation as well as to develop entrepreneurial skills in *Thakali* community.

Figure 1.1. Attributed financing models in *Thakali* Community
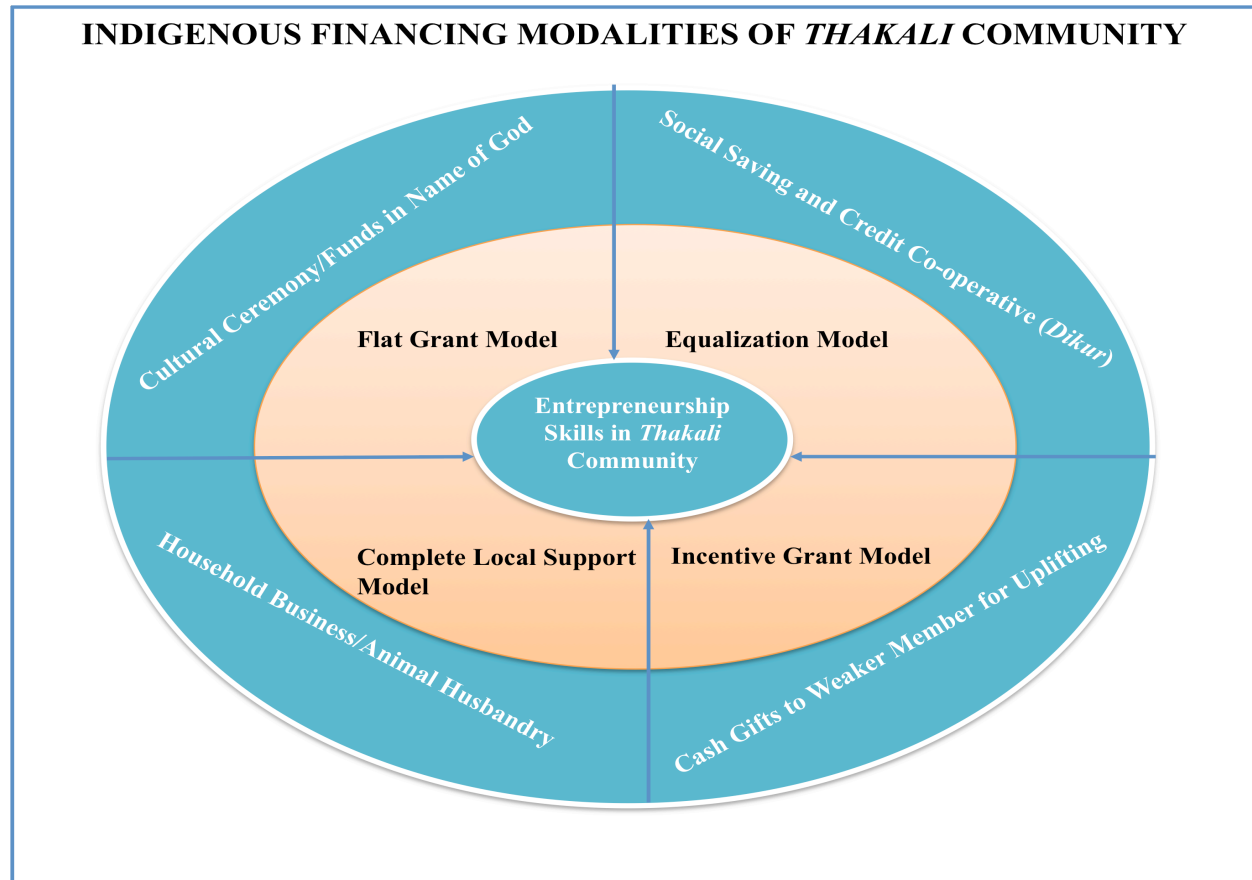
(Reconstructed from theory, financing modalities, & Vinding, 1998)

To address the local financial activities, in this paper, household business/animal husbandry was used as complete local support model, cultural ceremony/funds in the name of Gods adoration by *Thakali* was used as flat grant model, social saving and credit co-operative *Dhikur* was used as equalization model and cash gifts to weaker members for uplifting was used as an incentive grant model, for this study.

In this thematic review, it was found that there was the same component to park up the entrepreneurial skills of *Thakali* community as per the exhibit model in the figure 1.1. Flat grant model is defined as grants without taking into consideration about local taxpaying ability, which was attributed in cultural ceremony/funds in the name of gods. Equalization model is defined as funds allocated to area of less wealth that was attributed in social saving and credit co-operative which is called as *Dhikur* in local language. Michael Vinding (1998) also observed that needy members of *Dhikur* received the fund before wealthy ones, so the system benefitted the poor (p. 131). Likewise, complete local support model is defined as support for the local community by the community which was attributed in household business/animal husbandry. Lastly, incentive

grant model is defined as sustainability and cultural competency which was attributed in cash gift to weaker members for uplifting and to have an enterprise. Rigor was maintained in this thematic review through prolonged engagement with participants for counterpart with defined modalities on foremost and explicit local financial activities of embattled community.

Research Design

Subsistence of different constraints on local community, study has preserved the value of researcher due to the process of critical ethnography on semi-rural area of *Mustang* district of Nepal and is ranked highly in all measured levels of western tourism after *Khumbu* (Mt. Everest) region (Government of Nepal, 2012). The area has high level of self-employment and cash-crops as well as *Banchhaghar* and has an optimistic family involvement in household businesses and animal husbandry.   Population growth rate is below the national average and the numbers of people represent from this community are decreased from previous census (Population Census, 2011).

In this paper, the *Thakali* community was selected as a sample and the constructivist approach was used for knowing the financing modalities prevailing in the community. Case studies, ethnography, and naturalistic inquiry have gained reasonably widespread (Heck & Hallinger, 2005) acceptance. "Ethnography is also sometimes taken to refer to a study in which participant observation is the prevalent research method but that also has a specific focus on the culture of the group in which the ethnographer is immersed" (Bryman, 2008 p. 402). Nonetheless, Critical ethnography was selected to get a thorough understanding of the cultural myth and retrospective consensus on their local financing activities. The design is able to extract the key attributes of the community practices from ancient period as a convention. "Most phenomena cannot be explained in isolation, which is a result of their complexity in reality" (Flick, 2010 p. 15). Cohen, Manion & Morrison (2007) suggest that critical ethnography is intended to identify the values, systems, norms, key concepts that are guiding and underpinning situations (p. 187). So, more than four months was spent in the sample community to understand the socio-economic as well as cultural embedded ubiquitous values, artifacts and underlying assumptions on the local economic activities.

The study accepts multiple reality or subjectivism (Creswell, 2003) for ontological and constructivist approach i.e. knowledge can be constructed (Guba & Lincoln, 2005) for epistemological discourse. Likewise, inductive paradigm was taken in relation to primary data that embraces real time data; field observation, field note, textual data and community myth. Similarly, related research articles, published books, recent figure of Central Bureau of Statistics (CBS) and other different publications were used as the source of secondary data. Ethical issues are the critical aspects for the conduction of research, basically, in qualitative research (Pant, 2012). Nonetheless, all ethical aspects for researcher were maintained during this research.

Skill Formation

Skill can be defined as a technique that has a significant role to conduct a productive work in the contextual phenomenon. In this research, there was a special linkage between wages income, productivity, education and most prominently cultural management and work place on

Thakali community. Partnerships for 21st century skills (www. 21centuryskills.org) remark the following skills for life and career:
- Flexibility & Adaptability
- Initiative & Self direction
- Social & Cross-cultural skill
- Productivity & Accountability
- Leadership & Responsibility

Nevertheless, these skills are inductive aspects for skill formation in different local community. Wage labour, productivity and education play a vital role for skill formation on work place as per the cultural management. In this critical ethnographic study, the following linkages in *Thakali* community were identified:

Figure 1.2. The Important skills formation linkage in *Thakali* Community
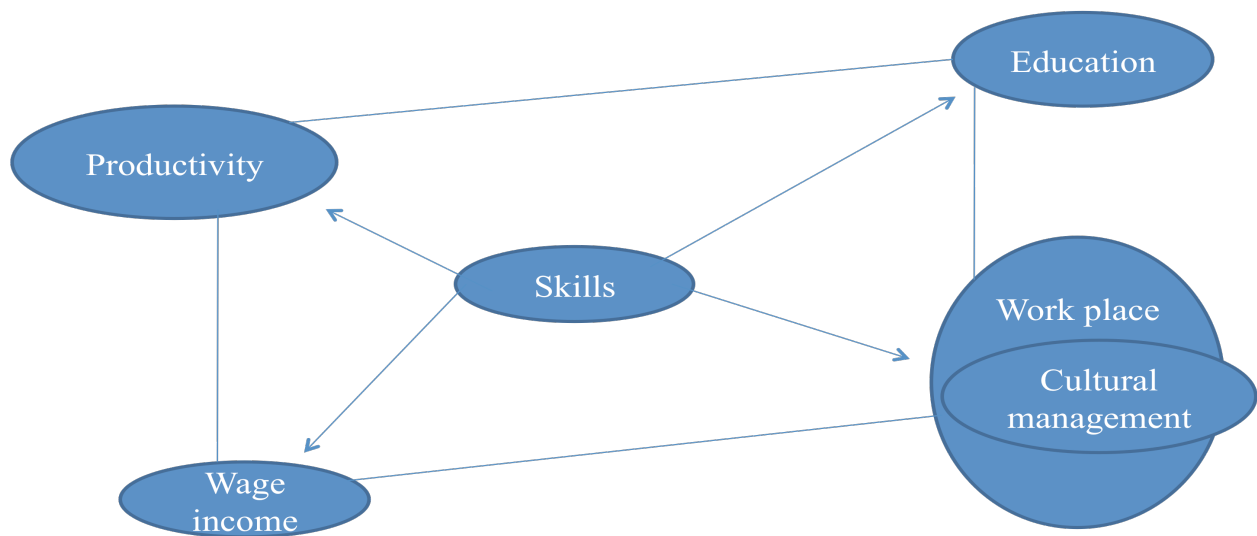
(Reconstructed from Theory, Ethnographic note & KU's class note of PhD)

Skill formation of *Thakali* community denoted that the influences of four components of financing modalities exist, in this community. They usually barter the wages income and/or sell the wages that generate the skill within the community. In this regards, Vinding (1998) state that the most important contribution a wife makes to the household is her labour which is at least as valuable as that of her husband (p. 191). But, nowadays assortments of women of this community are more visionary on different local enterprises skills. In this concern, Bush (2003) suggests "vision is increasingly regarded as an essential component of effective leadership" (p. 6). Nevertheless, women are more skillful and visionary to prepare the delicious food for business purpose that enhances the entrepreneurial as well as leadership skills within the community. These statements also argue that the special linkage between wage labour, productivity and entrepreneur skills that fosters through education which would be attributed basically in work place through cultural management. *Thakali* were very much inquisitive to have education within the community. In this connection, Vinding, (1998) further clarified that "illiteracy is now considered old fashioned and backwards, and most *Thakali* prefer their spouse

to be literate" (p. 221). Cultural management is the most important feature within the community (Work Place) to foster the entrepreneur skills. Sergiovanni (1984) states "culture serves as a compass setting to steer people in a common direction" (p. 4). Entrepreneur skills seem leading to common direction in this community. Nevertheless, it was found that *Thakali* used wage labour, productivity and education to enhance entrepreneur skills in the specific workplace through well cultural management.

Discussion

As a professional of tourism sector, I have inquisitiveness on inimitability of *Kaligandaki Galchhi*[4] and *Thak Khola* valley from the beginning. It was very cold when I reached this valley. There were different religious practices undertaken. There was the provision of animal transportation at *Eklibhatti* when I had been there on 21st February 2014. There were different caravan routes for *Khachar*[5] and/or *Jopkey*[6]. Centralized trekking, expedition and adventure tourism were in operation. Basically, in Nepal open economic policy is implemented from 1996 AD. Privatization and localization can be seen on tourism sector, basically around *Annapurna* and *Mustang* area. Likewise, local taste of different foods that includes *Dhindo*[7] is available which is very hygienic and contains high calories for health as per the scientific thinking. Especially, they use *Gundruk*[8] for pickle with *Dhindo*.

Similarly, different cultural ceremony has been observed in this community. Death/funeral ceremony was seen more expensive than their financial status. But there was a mutual co-operation among the community members. In this case, all villagers and relatives donate the cash, crops, fruits and wages to the victim family as financial supports. They provide different gifts on different ceremony. Vinding (1998) further elaborates that *Thakali* parents give their daughters a small amount of grain, a few agricultural tools, cooking utensils, and sometimes also jewellery, cash money and a field as dowry on the time of marriage (p. 191).

A participant R. P. Sherchan of *Thak Khola* quoted that:
I have given 5 Jopkey to my son in law to maintain his livelihood. At the beginning, I told him to return my Jopkey when he becomes financially strong but later on I thought not to take it back as he is doing better in this field (Field Note [FN]: 2014/02/15).

This proves that such familial help has promoted the life of the relatives. Such *Jopkey* are used for carrying the luggage of tourists that helps to generate good income in the locality. I found that a *Jopkey* earns Rs. 700/- per day.

Likewise, another participant Mr. K. B. Bhattachan has stated that:
In the past, I used to buy horses from India and when the female horses were pregnant from the same breed, the price of calf generally used to be Rs. 40,000/- but if the horse was crossed pregnant with donkey, the born calf from this practice was more expensive up to Rs. 80,000 per calf and the buyer of crossed calf used to pay the sum in advance when the female horse was pregnant (FN: 2014/02/20).

But the Government of Nepal as per its policy has banned crossing the horse with donkey every term thinking that the dynasty of horse may vanish. Such crossing can be done after each two terms. In real practice, they do not alter the crosses to have increased financial gain.

Similarly, Mrs. T. K. Gauchan representing *Thakali Bhanchhaghar*[9] of *Thak Khola* reported that:

As I am running a Thakali Bhanchhaghar at Thak Khola and my customers are local people and the tourists from different countries of the world. I serve Dhindo associated with different other vegetables and pickles which is liked by most of the people and it has helped me to earn a good sum to maintain my family life. In our culture, women are very skilful to prepare such delicious type of foods (FN: 2014/03/05).

Through such conversation, it is revealed that the people of such community are entrepreneur leader including women. Further, all the family members, in this community, follow the instructions of female members at home.

In this community, as per their tradition, all the sons of the family marry with the single woman. Hence, family is joint not divided and the income of all the male members is joint that helps in increasing the financial status of the family. But, nowadays, it has brought negative impact too in the family. It is believed that women are sexually harassed and modern family members deny such culture and they have migrated to other parts of the nation such as Beny, Baglung, Jomsom, Kathmandu, Pokhara etc. doing different kinds of businesses, basically they are engaged in *Thakali Bhanchhaghar*.

During my research period, I have traced that the people of this community have been engaged in *Dhikur* program where people become the member of *Dhikur*. This also has helped the people of this community to launch a business or to solve their personal financial problems. This is a financial co-operative practice within the society. Michael Vinding (1998) also observed credit and saving associations *Dhikur* in this community. He further stated that "Loans are obtained from banks, moneylenders, local credit and saving associations, and from funds belonging to patiilineal descent groups, villages and temples" (p. 105). Similarly "....Still another is to participate in a *Dhikur*" (p. 127).

Regarding this, Mr. T. P. Sherchan has stated that:

I had to buy some Jopkey for using them in carrying luggage of the tourists. I had shortage of money. But I became the member of Dhikur society and I bid the amount for a particular month and purchased three Jopkey which I have been using them in luggage carrying business of tourists earning per day Rs. 700/- per Jopkey and this has helped me to maintain my livelihood (FN: 2014/01/12).

As stated above, the people of this community worship different clan Gods and they collect certain compulsory equal amount per household to create a fund and this fund is used to observe different cultural rituals of the community. In this community, to observe death funeral rites/rituals, it is very expensive for everyone. In such a case, the member is highly benefitted from such fund because the individual should not have to spend personally for this case. This fund is further used for the expenses incurred during different cultural programs for entertainment of the community.

Findings and Conclusions

Having conducted this research, it was found that relatives of a financially weaker member support to strengthen the financial status of the latter by encouraging them to have an enterprise. Basically, this community applies complete local support model (Household business/animal husbandry), Flat grant model (fund in the name of god/cultural ceremony) and Equalization model (*Dhikur*) of financing to uplift their financial status. Generally, every

member of *Thakali* community is an inborn entrepreneur in various commercial sectors of the local community.

A successful entrepreneur, in this community, has been engaged in enabling a non entrepreneur by donating cash-gift (by the relatives) as financing model to gain the skills of successful entrepreneur. Basically, they use the different types of financial techniques as types of traditional cash-gift that is refundable and nonrefundable. *Thakali* women are skillful to prepare delicious typical foods and have good sense of hospitality. Many business firms, in this community, are women oriented. For example-*Thakalai Bhanchhaghr* which is widespread acceptable in semi-rural area and capital as well as other cities of the country. Basically, women of each household are the leader and decision maker, in this community.

Acknowledgements

Financial Disclosure

Notes

1. "*Dhikur*" is a kind of co-operative within the society members. They collect certain amount every month from all members and whatever so is collected, the total sum will be taken by one of the leader members of the society. In this practice, they bid at the end of each month. The low bidder collects the sum in that particular month with turn by turn respectively for all members.
2. There are four types of *Thakali* in their community. Gauchan, Sherchan, Tulachan and Bhattachan. They believe and worship different clan gods as per their belief.
3. Michael Vinding (1998) noted in the book named "The Thakali: A Himalayan Ethnography" on the topic of clan Gods of Thakali as "The four Tamang Thakali clans each have a clan deity. Gauchan's deity is God Jewel Elaphant (*Lha Langba Nhurbu*), Tulachan's is Goddess Sea-Monster Queen (*Lha Chyurin Gyalmo*), Sherchan's is Goddess White Lioness of the Glacier (*Lha Ghangla Singi Karpo*) and Bhattachan's is God Self-Created Yak (*Lha Yhawa Rangiyung*). The material body of the latter is the head of a yak the other are wooden masks. The four clan gods appear and are worshipped once every twelfth year during the *Lha Phewa* festival" (p. 292).
4. "*Kaligandaki Galchhi*" is deep and narrow gorge and/or valley formed by the *Klaigandaki* River. As per the encyclopedia, it is one of the deepest ravines in the world.
5. "*Khachar*" is the calf produced by crossing breed of donkey with horses.
6. "*Jopkey*" is the young calf produced by crossing breed of yak with cows and basically available in high hilly and Himalayan region of Nepal.
7. "*Dhindo*" is a classical kitchen recipe well popular in the community. It is made by barley flour continuously stirred with boiled water till it become thick and cooked. It is served hot with green vegetables, salad and spicy pickle. We can use corn, millet and wheat

flour to make the *Dhindo* but *Thakali Bhanchhaghar* usually uses barley flour to make typical *Dhindo* for basic food in their livelihood.

8. "*Gundruk*" is a fermented and dry vegetable made by green spinach or mustard. This can be used for Nepali curry and/or pickle.

9. "*Thakali Bhanchhaghar*" represents the typical kitchen i.e. restaurant and/or hotel operated by *Thakali* community. This restaurant is famous for unique tastes of Nepali food that embraces *Dhindo,* plain rice, pulse, green salad, green chili, piece of lemon, different vegetable, chicken/mutton curry, ghee produced from the milk of local cow, curd and spicy *Gundruk* pickle etc.

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Social Networking Site Usage as a Tool for Social Capital and Academic Adjustment in the Nigerian Context

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Abstract

The actualization of new trend and cutting age technology of social networking sites (SNSs) is not older than a decade. Therefore such web pages like Twitter, Facebook, MySpace, YouTube and many of others are nowadays being used among wide population in Nigeria the university students more prevalent. Social Capital (SC) reflects those intangible resources embedded within interpersonal relationships or social institutions. Academic adjustment (AA) of university students refers to the adoption and adaptation to changes in attitudes, behaviors, values, rules, regulations and norms to follow and be accepted into the new learning environment. In a mixed method approach, this study investigated and reported on the SNSs usage and its relevance on social capital as well as the role plays on the academic adjustment among the Nigerian University students. The qualitative and quantitative method employed profile observation and questionnaires on 150 and 400 subjects respectively. The subjects from universities in the Nigeria's six (6) geo-political zones were selected. This was made through snowball for the observation and purposive randomization for the questionnaires. The result indicates the extent of SNS usage and its influence on social capital among the students of the university education system in Nigeria. It also reports of significant influence of the use of social networking sites (SNSs) students' on academic adjustment (AA) which as well leads to social capital. On the same trend the Analysis Moment of Squares/ structural equation model (AMOS/SEM) indicates the extent of the relationship among the SNSs, SC and AA

Keywords: Social Capital, SNSs, Nigeria, Academic Adjustment

Introduction

Social capital as developed by James Coleman in the 1980s refers to the social relationships between people that enable productive outcomes (Szreter, 2000). It can be seen as the glue that holds together social collectives such as networks of personal relationships, communities or even whole nations (Ellison, Steinfield, & Lampe, 2007; Sum et al, 2008). Social capital can be seen from the theoretical perspective as being the micro (individual) or the macro (collective). Whereas, Flap (2001) sees it as a pool of resources for the individual that may be helpful for the individual's goals attainment; Coleman (1990) views it as a collective produce and own entity from which the whole community may benefit. It was equally identified that mobile and smart devices provide easy access to online social network that as well effect the actualization of good citizenship. Digital citizenship becomes a wide phenomenon clamored in most advanced and digital societies. Most modern skill teachers guide their students on the safety use and ethics regarding the digital technologies to keep abreast of the rules and regulations of the given society, social networking sites with no exception. This study aimed at finding the degree of SNSs usage among university students in Nigeria and how this enhances their academic adjustment. It also seeks to investigate on the extent of influence of the two dimensions on social capital. In view of this four research questions were evolved:

1.1 Questions

2. Is there any significant relationship between SNSs usage, academic adjustment and social capital among University students in Nigeria?
3. To what extent are the social networking usage, academic adjustment and social capital among University students in Nigeria?
4. Is there any significant difference in terms of University, Faculty, Gender, Religion Ethnicity and Region on the extent of SNSs usage, Academic adjustment and social capital?
5. Do students' SNSs profiles significantly suggest any aspect of social capital among them?

2   Literature Review

2.1   Social Networking Sites

A social network service focuses on building online communities of people who share interests and/or activities, or who are interested in exploring the interests and activities of others. From 1997 to 2001, a number of community tools began supporting various combinations of profiles and publicly articulated friends. Boyd and Ellison, (2007) defined social network sites as "web-based services that allow individuals to construct a public profile within a bounded system and articulate a list of other users with whom they share a connection. There is no set or single definition commonly agreed upon of social capital. However, it can be seen as any sum of resources, either actual or virtual, that accrues to an individual or a group by virtue of possessing a durable network. The World Bank is more expansive and suggests that "social capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social

interactions. A wider but confined definition is that of Cote and Healy, (2001:41) that SC is networks together with shared norms, values and understandings that facilitate cooperation within or among groups.

With regards to social networking usage as far 2007, there were Nigerians on the network all in all numbered below 40,000. For instance the approximate Facebook users who indicated Nigeria as their country was estimated to over 212,000, in 2009 and 657,360, in 2010 (World statistics, 2013). This shows almost 53% increased from which more than 60% indicated to be students. In a nut shell Nigerian university students are heavy signup users of the Facebook more than any other SNS and followed by YouTube then Twitter. Nigerian Facebook users estimated to about 657,360 in 2009 now at the time of this report the figure enormously reached 6,630,200 (World statistics, 2013). It is quite apparent that there was a high increased in the Facebook use in Nigeria coupled with the fact that there are almost 48 million internet users representing a quarter of the total Nigerian population. This figure is the highest percentage which as well represents 28.9% of the total African internet users and is an immense amount out of the total Nigerian population which is estimated to stands now at 170,123,740 (World statistics, 2013).

Hesse (2007) explores on the social media usage among exchange students in the United States he thus reports that some social media provided search functionality based on lexical descriptions of interests, attitudes, and biographical factors, such as age, school, work and living location. He then postulates that use of SNSs among exchange students shapes their adjustment processes. Social media thus, helps students get inform of their immediate and remote environments and expand contact with their host culture. Social networking sites extend information accessibility on the schools social fabric and of peer groups. Kolek and Saunders (2006) also mentioned using social media as an environment for faculty to students' interaction as well as a practicable strategy which keeps them abreast with their school environment. They further report that students spend a lot of time engaging in using social media to stay firm to school after they began attending their classes.

Wolfe (2010) reports differences in percentage in the social networking site usage among various faculty students and found gender difference in the attitude towards social networking site and its usage. In terms of the level of study, he as well further reports that sophomore have the highest level of attitude towards using social networking sites than freshman who are having scored the lowest.

2.2   Social Capital

This took us to the other side of the coin which is the social capital. Social capital involves social trust, political participation, membership in groups and associations, volunteering, and confidence in political institutions. Dekker & Uslaner (2006) opine that social capital is all about the value of social networks, bonding similar people and bridging between diverse people, with norms of reciprocity. It appears there are different ideas about the effect of using the SNSs on social capital. Some scholars (Valenzuela, Park, & Kee, 2008) believe that cyberspace decreases social capital, in contrast, some others like Sum, (2005) asserts that SNSs transport social capital among people. Sum, (2005) further believes that social capital is all about the value of social networks. Ellison, Lampe, and Steinfield, (2009); Steinfield, Ellison, & Lampe 2008) state, "intensive use of Facebook was associated with higher levels of social capital, especially bridging social capital." But to Valenzuela, et al, (2008) whatever effects social network sites

may have on young adults' social capital, they may be contingent upon individuals' socialization. In an online survey of Facebook (Zywika & Danowski, 2008; Ellison et al. (2007) found that there was greater evidence for the social compensation pattern, that those with lower life satisfaction and lower self-esteem reported having developed more by bridging social capital on Facebook. But on the contrary Sum, (2008) designed and employed a website entitled "Social Capital Online Survey" embedded to the University of Sydney web server. She found that those who use the internet to meet new people for social purposes or communicate with people for the first time are more likely to have a lower degree of personal wellbeing.

Social connection between the child and the parents is sufficiently strong evidence that cultural capital and financial capital become available to the child for academic capital. That covered for both the short term and the child's lifelong education. James Coleman (1988) also argued that "as new structures of the household in modern society become more prevalent, many linkages and activities that provided social capital for the next generation are no longer present, and their absence may be detrimental to children's learning." The disciplinary effort and the academic ethics established in the school community enhance good relation between home and school. In addition to that the mutual trust between school and home are the major forms of social capital. Ho, Sui Chu. (2000) believes that such forms of social capital are found to contribute to student learning outcomes in countries like Malaysia, Singapore, Hong Kong and Korea. It also enhances by improving the quality of the school and reducing learning inequality among social-class groups, which subsequently enhance adjustment to the school community.

2.3   Academic Adjustment

In this regard therefore, adjustment is defined as a process of fitting the pattern of activity patterns individual or group is similar to others with some sense of determination. Adjustment of university students refers to the adoption and adaptation to changes in attitudes, behaviors, values, rules, regulations and norms to follow and be accepted into the new learning environment. Abdullah, Elias, and Uli Mahyuddin (2009); Autumn (2009) assume that the adjustments reflected in the implementation of the college is including academic achievement and personal growth. Van Eman (2009) regarded academic adjustments as having dimensions such as attitudes toward school and teachers to classes, academic self-concept, purpose and motivation / self-regulation.

This leads us to focus on the negative influences of social media that might have been cause on students who seems to have isolated themselves in their own constructed private spaces, profiles or walls instead of being involved in the general offline on-campus social, academic and spiritual activities (Kord, 2008). Students use the Facebook website as an avenue to get adjusted by expressing themselves, share their daily lives with friends and family members, and keep in constant touch with a group of new and old friends. It helps them stay firm to know about what is happening around in the society (Kord, 2008; Suleiman, 2011).

It has been widely observed (Lent, Taveira, Sheu and Singley, 2009) that transition for students from school to university is greatly influenced by whether they have been taught to go on their own way to take responsibilities for their own paths. Many students have difficulty adjusting in school due to the fact that they need to be self-disciplined and self-motivating (Abdallah et al, 2009). It is usually said that students lack self confidence to participate in class activities. Some even may miss lectures because they cannot find the venues easily. Other issues

attributed to the new students adjustment problems are plagiarism rules and use of the internet as a source for assignments (Lent et al, 2009). Generally, new students lack respect for teachers and colleagues and find difficulties adjusting to an environment which they control themselves because there is no teacher standing over them telling them what to do and when to do. Study by Buote et al (2007) assesses the quality of new friendships and adjustment in the university. Their findings indicate a significant positive relation between new friendships and adjustment to university. There is an association which was found to be stronger for students living in residence than for those commuting/shuttling from home to university. In their study Abdallah et al (2009) as well found academic achievement to be significantly predicted by college overall adjustment and academic adjustment.

Similarly, Omoteso (2006) investigates in south-western Nigeria the nature of the university students' academic adjustment. He opines that social factors and other selected socio-demographic variables influence the students' academic adjustment. The study was limited to south-western region and concludes that "there is a problem of academic adjustment of university students in Nigeria." The nature of the problem can be seen in the students' failure to detach from old friends and family.

Nigeria has numerous federal, state and privately funded universities numbered to about 129 (40 federal, 38 state and, 51 private) (FGN/NUC, 2014). Not quite significant number of the Nigerian universities are fully employing the learning management system (LMS) or implementing a viable e-learning system bearing a bulk of shortcomings. The e-learning is not a new phenomenon in promoting education in some parts of the world. (Suleiman 2011)

3   Methodology

Through a mixed method approach, this study obtains and analyzes the data in a longitudinally over the period of six months. The qualitative and quantitative method employed a covert observation on subjects' profiles and administered questionnaires on 150 and 300 subjects respectively. The accessible sample of student subjects was drawn from the selected targeted universities in the Nigeria's six (6) geo-political zones namely: (South-West, South-South, South-East, North-West North-Central and North-East). This gives the sample distribution ratios of 25:50 for both observation and questionnaire respective at each institution. This is by snowball for the focus group interview and purposive randomization for the questionnaires. The target sampled universities were Lagos State University, University Port Harcourt, University of Nigeria Nsukka, Bayero Univesity Kano, University of Technology Minna and Abubakar Tafawa Balewa University Bauchi. On the data analysis on the observation, the 'constant compares' and 'thematic report generation' were carried out in this regard. The sampled universities SNSs pages as well as students' profiles were observed in terms of alumni relationships through using comments, likes, tagging and other sorts of interactions. While t-test, ANOVA and correlation analysis were made on the quantitative data by using the SPSS and specifically structural equation modeling (SEM) analysis tool for the correctional relation only. **4**
Results

The qualitative findings from the various SNSs profile observation on the university student subjects indicate getting connected to friends and family as the major reason for using SNSs and that they do interact with other people. It similarly reveals on the time they normally

spend on SNSs sharing, talking and interacting with others. It suggests that the more time spend interacting on SNSs the more likely the stronger that relationship may be. There is a saying that goes that is whom you know determines what you might be. The more people one knows the more one gets connected and the more opportunities for that fellow. These kinds of extended relationships have been major tools of social mobility among the people. Alumnism, fraternism, cultism and collectivism in terms of politics, religion, economics and social affinity among the students prelude their social move and boost their status quo in the society. It carries many along and to an economic success sometimes even to the corridors of power. The finding reveals that some got political appointments as a result of such relationship.

On these issues the SNSs profile observation reveals existence of such connectivity among the students and it cuts across gender, religion and various ethnic groups. The subjects' profiles overwhelming show on the motives and rationale behind their usage of SNSs. Most of the profiles observed cited using Facebook more heavily than Twitter and MySpace. YouTube is used casually for viewing, comments on and sharing of multimedia information (video clips) in all human endeavors such as for fun, education entertainment, curiosities and other purposes. Majority of the profiles indicate using the SNSs just to get connected to school friends and families. Others suggest for getting new friends and to get in touch with old friends. In essence using SNSs from the observation show that it is to communicate and interact with many people and to boost popularity. The observation findings as well indicate that SNSs help the users to connect to their people especially when the face to face interaction is not obtainable. Some reveals that it allows the users to share feelings with others. Other profiles significantly indicate on the discussion on personal issues with other people on various affairs and at various situations. It also helps them to know each other and get up to date information from the friends on events and other happening around them. These views above concord with Dekker & Uslaner (2006) that social capital is all about the value of social networks, bonding similar people and bridging between diverse people, with norms of reciprocity. The profiles suggest that the students also use SNSs to connect with people in other part of the world. It indicates that SNSs usage is beyond their local scope. It stretches wide to a cover global perspective. This concurs with Quan-Hass & Wellman (2002) and Sum, (2006). The findings also indicate that SNSs unite people this continued to encourage more people because it unites them as it allows them to interact with whoever they feel like on the network and share ideology. People can belong to various groups of interest. Very few of the social networking sites observed indicates that they represent interest groups because only people with similar ideology can join while many others are general. It also becomes a platform for grooming political ideology, religious propagation as well as ethnic inclination propagation thus it become a phenomenon for many things which can be done with such internet facilities. More so it makes people be aware of what is happening in the society and the world at large as it is now like a global village. SNS is available to everyone in the world and it is a medium for people to chat, talk and deal with others across the globe. academically, religiously, politically, socially, and economically or business wise. Therefore the SNSs usage is encouraging because as it helps in uniting people and form all forms of social capital.

The general overview on the observed profiles overwhelmingly shows that the social networking sites become that advantageous platforms were events on social, political, religious, and economical affairs were carried out. A lot of users stick to the SNSs for inviting other for social gathering like marriages, birthdays and parties. Others use SNSs for political campaign

and ideological persuasions. SNSs also serve as those remote avenues for religious propagations. Economic advantages were also identified and are very much relevant through the use of SNSs among the students in the Nigerian context. Proxy adverts and marketing strategies were identified of different products among the users or of other established companies. Traces of fraternity, hostility as well as apathy were also identified from the contents generated especially on comments, likes and tags.

The quantitative result is presented as follows:

Table 1: the frequency distribution on the sample

University	Faculty	Ethnicity	Religion	Region	Gender	
LASU	50 SCIE	80 HAUSA	83 ISLAM	125 North	119 Male	180
PORT	50 ARTS	69 YORUBA	77 CHRISTIANITY	131 South	181 Female	120
UNN	50 SOC SCI	89 IGBO	59 OTHER	44		
BUK	50 MEDI	44 OTHER	81			
UTM	50 LAW & OTHERS	18				
ATBU	50 SCIE					
Total	300	300	300	300	300	300

Table 1 indicates the distributions of the sample in the study whereby each university had equal representation of 50 subjects. In terms of faculty the social science faculties have the highest frequency of 89 slightly above faculties of sciences that have the representation of 80 students. Faculties of law and medical sciences have the lowest of 18 and 44 respectively. This is obvious considering the fact that not all the universities offer law and medical courses. Faculties of arts also have a moderate representation in the sample.

Table 2: the Correlation on relationship between Social Networking site usage Social Capital and Academic Adjustment

		SNSUSAGE	SOCCAPITAL	ACADJUSTMENT
SNSUSAGE	Pearson Correlation	1		
	Sig. (2-tailed)		.498	.130
	N			
SOCCAPITAL	Pearson Correlation		1	
	Sig. (2-tailed)	.498		.142
	N			
ACADJUSTMENT	Pearson Correlation			1
	Sig. (2-tailed)	.130	.142	
	N	300	300	300

In terms of relationship between the three dimensional constructs (SNSU, SC and AA) a significant relationship exist as shown on table 2 above. The result indicates the relationship higher (.498) between social networking site usage and social capital. Between the social networking site usage and academic adjustment the score (.130) indicates moderated relationship as well; whereas, between the social capital and academic adjustment the values is significantly higher which stands at .142.

Table 3: the Independent sample t-test on social networking site social capital and academic adjustment in terms of gender

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SNSUSAGE	Equal variances assumed	2.347	.127	1.504	298	.134	.69611	.46281	-.21468	1.60691
	Equal variances not assumed			1.476	238.1	.141	.69611	.47177	-.23326	1.62548
SOCCAPITAL	Equal variances assumed	1.435	.232	1.335	298	.183	.66500	.49806	-.31516	1.64516
	Equal variances not assumed			1.307	236.4	.192	.66500	.50864	-.33704	1.66704
ACADJUSTMENT	Equal variances assumed	4.942	.027	.537	298	.592	.21944	.40889	-.58523	1.02412
	Equal variances not assumed			.555	282.1	.579	.21944	.39518	-.55843	.99732

In terms of variation regarding the gender on the use of SNSs and the extent of social capital as well as the academic adjustment among the university students in the Nigeria, the result suggests significant differences between male and female. In terms of SNS usage it shows the significant score of .127 (F=2.347). With regards to social capital the significance level stands at .232 (F=1. 435) where p>0.05 each. On academic adjustment the score shows the level of .027 (4.942) which indicate p<0.05 meaning that there is significant difference between gender in terms of academic adjustment.

Table 4: the Independent sample t-test on social networking site social capital and academic adjustment in terms of Region

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SNSUSAGE	Equal variances assumed	.181	**.670**	-.814	298	.416	-.37825	.46471	-1.29278	.53627
	Equal variances not assumed			-.818	257.0	.414	-.37825	.46228	-1.28859	.53208
SOCCAPITAL	Equal variances assumed	.181	**.671**	-.956	298	.340	-.47773	.49949	-1.46070	.50525
	Equal variances not assumed			-.962	257.1	.337	-.47773	.49682	-1.45608	.50063
ACADJUSTMENT	Equal variances assumed	.495	**.482**	-2.221	298	.027	-.90248	.40631	-1.70209	-.10287
	Equal variances not assumed			-2.184	237.9	.030	-.90248	.41321	-1.71650	-.08846

In terms of where the subjects hail from the Nigeria's Northern and Southern regions, the result suggests no significant differences between regions. The significant scores in terms of SNSs usage show.670 (F=.181), in terms of social capital show .671 (F=.181) while on academic adjustment it stands at .482 (.495) where p>0.05 on each.

Table 5: the ANOVA on SNS and social capital and academic adjustment in terms of faculty

		Sum of Squares	df	Mean Square	F	Sig.
SNSUSAGE	Between Groups	10.899	4	2.725	.174	**.952**
	Within Groups	4619.763	295	15.660		
	Total	4630.662	299			
SOCCAPITAL	Between Groups	87.071	4	21.768	1.219	**.303**
	Within Groups	5267.256	295	17.855		
	Total	5354.328	299			
ACADJUSTMENT	Between Groups	21.671	4	5.418	.448	**.774**
	Within Groups	3568.991	295	12.098		
	Total	3590.662	299			

On the differences in terms of faculty the ANOVA result (table 5) indicates p<0.05 meaning no significant differences exist on the extent of social capital (.303) while on the usage of SNSs (.952) and the extent of academic adjustment (.774) there is significant difference p>0.05 on each.

Table 6: the ANOVA on SNS social capital and academic adjustment in terms of ethnicity

		Sum of Squares	df	Mean Square	F	Sig.
SNSUSAGE	Between Groups	81.731	3	27.244	1.773	**.152**
	Within Groups	4548.931	296	15.368		
	Total	4630.662	299			
SOCCAPITAL	Between Groups	10.632	3	3.544	.196	**.899**
	Within Groups	5343.696	296	18.053		
	Total	5354.328	299			
ACADJUSTMENT	Between Groups	19.587	3	6.529	.541	**.654**
	Within Groups	3571.076	296	12.064		
	Total	3590.663	299			

With regards to ethnicity the findings (table 6) indicates no significant difference p<0.05 only on the use of SNSs (.152) but is shows that there are significant difference on the extent of social capital and academic adjustment among the different ethnic groups of the Nigerian university students.

Table 7: the ANOVA on SNS Social capital and academic adjustment in terms of religion

		Sum of Squares	df	Mean Square	F	Sig.
SNSUSAGE	Between Groups	67.064	2	33.532	2.182	**.115**
	Within Groups	4563.597	297	15.366		
	Total	4630.662	299			
SOCCAPITAL	Between Groups	80.065	2	40.033	2.254	**.107**
	Within Groups	5274.263	297	17.758		
	Total	5354.328	299			
ACADJUSTMENT	Between Groups	.132	2	.066	.005	**.995**
	Within Groups	3590.531	297	12.089		
	Total	3590.663	299			

With regard to religion the scores (table 7) suggests much difference p>0.05 on the extent of academic adjustment only. But on the other variables SNSs usage (.115) and social capital (.107) which represent that p<0.05 this indicates that there is no significant difference among the students.

Table 8: the ANOVA on SNS Social capital and academic adjustment in terms of university

		Sum of Squares	df	Mean Square	F	Sig.
SNSUSAGE	Between Groups	786.652	5	157.330	12.033	**.000**
	Within Groups	3844.010	294	13.075		
	Total	4630.662	299			
SOCCAPITAL	Between Groups	150.826	5	30.165	1.704	**.133**
	Within Groups	5203.502	294	17.699		
	Total	5354.328	299			
ACADJUSTMENT	Between Groups	225.256	5	45.051	3.936	**.002**
	Within Groups	3365.407	294	11.447		
	Total	3590.662	299			

More on the variation in terms of university, the ANOVA results (table 8) also suggest significant differences p<0.05 on the extent of SNS usage, social capital and academic adjustment among the students. The scores show (.000) for SNS usage, (.133) for SC and (.002) for academic adjustment, all indicating p<0.05.

This took us to the other quantitative result where the three constructs were further correlated with each other using the analysis of moment structure by structural equation modeling tool (AMOS/SEM) to identify the actual structural fit model (fig.1) of the relationship. The findings were presented as follows:

Model Fit
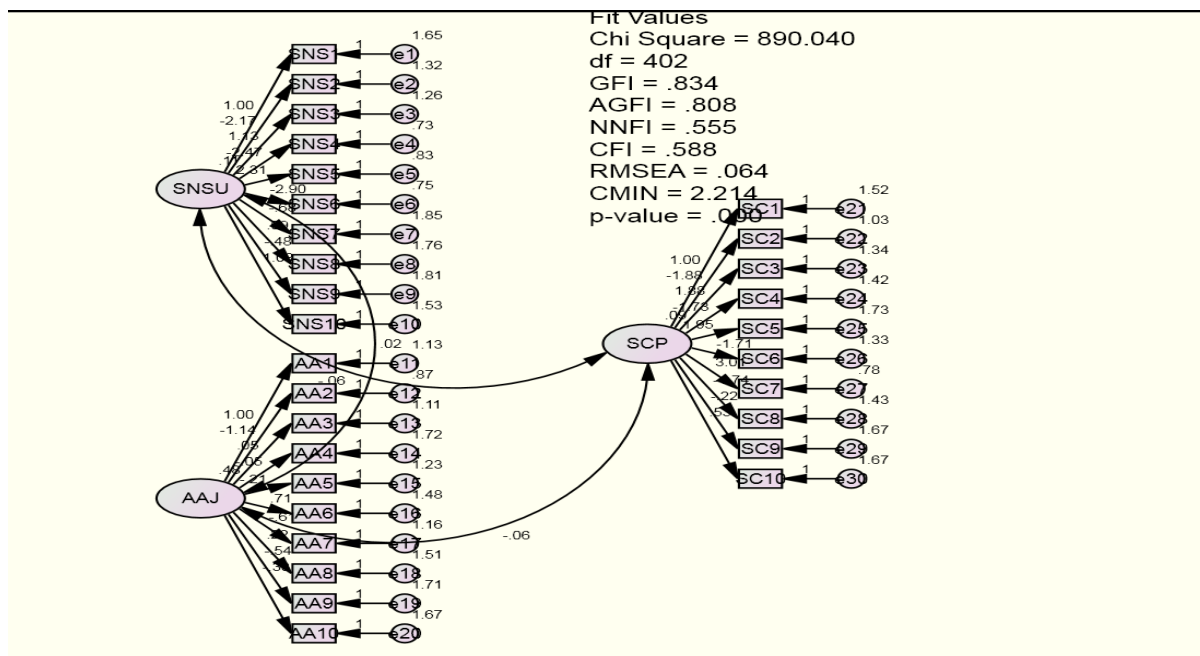
Figure 1: Structural model of relationship on SNS usage, Social capital and Academic Adjustment among Nigerian university Students

In consideration of the above structural model fit above (fig: 1) the fit values were identified and presented as follows:

Chi Square = \cmin   **= 890.040**
df = \df   **= 402**
GFI = \GFI   **= .834**
AGFI = \AGFI   **= .808**
NNFI = \TLI   **= .555**
CFI = \CFI   **= .588**
RMSEA = \rmsea   **= .064**
CMIN = \cmindf   **= 2.214**
p-value = \p   **= .000**

In addition to these results above, tables (9-12) further translate the results in form of CMIN, RMR, Baseline Comparisons, Adjusted Measures, NCP, FMIN, Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and Akaike information criterion (AIC). The model also presented with composite reliability the p-value and chi-square values (table 9). Both convergent and discrete validity as well as correlation were observed (10-12). The tabulated results are presented below:

Table 9-: The AMOS Model Fit Summary on relationship among SNS usage, Social capital and academic adjustment

CMIN					
Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	63	890.040	402	**.000**	2.214
Saturated model	465	.000	0		
Independence model	30	1620.649	435	**.000**	3.726
RMR, GFI					
Model		RMR	GFI	AGFI	PGFI
Default model		.126	.834	**.808**	.721
Saturated model		.000	1.000		
Independence model		.201	.673	.651	.630
Baseline Comparisons					
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.451	.406	.600	**.555**	**.588**
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000
Parsimony-Adjusted Measures					
Model			PRATIO	PNFI	PCFI
Default model			.924	.417	.544
Saturated model			.000	.000	.000
Independence model			1.000	.000	.000
NCP					
Model		NCP		LO 90	HI 90
Default model		488.040		405.516	578.289
Saturated model		.000		.000	.000
Independence model		1185.649		1066.151	1312.687
FMIN					
Model	FMIN	F0		LO 90	HI 90
Default model	**2.977**	1.632		1.356	1.934
Saturated model	.000	.000		.000	.000

CMIN					
Model	NPAR	CMIN	DF	P	CMIN/DF
Independence model	5.420	**3.965**		3.566	4.390

RMSEA				
Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	**.064**	.058	.069	**.000**
Independence model	.095	.091	.100	**.000**

AIC				
Model	AIC	BCC	BIC	CAIC
Default model	1016.040	1030.614	1249.378	1312.378
Saturated model	930.000	1037.575	2652.259	3117.259
Independence model	1680.649	1687.589	1791.762	1821.762

Table 10: AMOS Covariance on the default model of the relationship on SNS usage, Social capital and Academic Adjustment among Nigerian university Students

			Estimate	S.E.	C.R.	P	Label
SNSU	<-->	AAJ	.020	.020	1.018	.309	par_28
SNSU	<-->	SCP	-.059	.024	-2.476	.013	par_29
AAJ	<-->	SCP	-.063	.027	-2.300	.021	par_30

Table 11: AMOS Correlations: on SNS usage, Social capital and Academic Adjustment among Nigerian university Students

AMOS			Correlations Estimate
SNSU	<-->	AAJ	**.089**
SNSU	<-->	SCP	**-.606**
AAJ	<-->	SCP	**-.303**

Table 12: Computation of Result and degrees of freedom

Result and degrees of freedom		
Number of distinct sample moments:		465
Number of distinct parameters to be estimated:		63
Degrees of freedom (465 - 63):		**402**
Minimum was achieved	Chi-square	**= 890.040**
Degrees of freedom = **402**	Probability level	**= .000**

5   Conclusion

Both the quantitative and the qualitative findings from the various SNSs profile observation on the university student subjects indicate getting connected to friends and family as the major reason for using SNSs and that they do interact with other people. It similarly reveals on the time they normally spend on SNSs sharing, talking and interacting with others. It suggests that the more time spend interacting on SNSs the more likely the stronger that relationship may be. There are sayings that whom you know determines what you might be. The more people one knows the more one gets connected and the more opportunities for that fellow in reciprocation. These kinds of extended relationships have been major tools of social mobility among the people. Alumnism, fraternism, cultism and collectivism in terms of politics, religion, economics and social affinity among the students prelude their social move and boost their status quo in the society. It carries many along and to an economic success sometimes even to the corridors of power. The finding reveals that some got political appointments as a result of such relationship. Where some become popular with others.

In concluding with these results, it justifies the existence of significant relationships among the main constructs namely: social networking site usage, academic adjustment which both enhances social capital. This is evident from the findings on the profile observation that SNSs help in diverse communication with different categories of people. It reveals on the significant time usually spend on SNSs for sharing, talking and interacting with others. It also shows that discussion on so many multi facet issues were possible online. The SNS is found to be a social environment that connects many people with their old and new friends as well as family members. SNSs therefore are tools with a connection factors and power among the members of not only the Nigerian but the global society. It links people with each other from many angles and took many advantages from each other. The study also concludes that no significant variation on the use of social networking sites and the extent of social capital in terms of faculty, ethnicity and age distribution but it indicates significant difference in terms of gender. It has been praised by educators as well as the learners as being a medium for social capital which equally promotes lifelong learning and broadening the numbers and diversity of young people participating in an educational socialization. Thereby, this keeps abreast in modifying the teaching and learning methodologies and modalities. Hence, the impact of SNSs on such young

people students in this case should consequentially be considered substantial, specifically considering the huge number and constant influx of these youth involving in the prevailing trend of SNSs' usages. At a time when education systems are going through some drastic and dramatic changes, it is a high time to focus on a more universal and diversified modalities as to keep the teaching, learning and training of human capital via social capital as up-to-date and relevant as possible. Modest and blissful usage of social networking sites can reasonably and reliably enhance in this direction. It can be postulated therefore that SNSs usage would sooner overtook the traditional system of information and communication at the global range. This is because it enhances the attitude towards the school and thus environmental adjustments and achievements which in turn influence a communal and viable social capital for the betterment of the country educationally and thus the general development of the country as well as the unique global society at large.

The general overview on the observed profiles overwhelmingly shows that the social networking sites become that advantageous platforms were events on social, political, religious, and economical affairs were carried out. A lot of users stick to the SNSs for inviting others for social gathering like marriages, birthdays, funerals and parties. Others use SNSs for political campaign and ideological persuasions. SNSs also serve as those remote avenues for religious propagations. Economic advantages were also identified and are very much relevant through the use of SNSs among the students in the Nigerian context. Proxy adverts and marketing strategies were identified of different products among the users or of other established companies. Traces of fraternity, hostility as well as apathy were also identified from the contents generated especially on comments, likes/dislikes, posts and tags. The model suggests complex multi facet connectivity in reciprocity with multidimensionality in various aspect of life. Hence, the impact of SNSs on such young people students in this case should consequentially be considered substantial, specifically considering the huge number and constant influx of these youth involving in the prevailing trend of SNSs' usages.

At a time when education systems are going through some drastic and dramatic changes, it is a high time to focus on a more universal and diversified modalities as to keep the teaching, learning and training of human capital via social capital as up-to-date and relevant as possible. Modest and blissful usage of social networking sites can reasonably and reliably enhance in this direction. It can be postulated therefore that SNSs usage would sooner overtook the traditional system of information and communication at the global range. This is because it enhances the attitude towards the school and thus environmental adjustments and achievements which in turn influence a communal and viable social capital for the betterment of the country educationally and thus the general peace, unity and development of the country as well as the unique global society at large.

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The Effect of "WhatsApp" Electronic Dialogue Journaling on Improving Writing Vocabulary Word Choice and Voice of EFL Undergraduate Saudi Students

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Abstract

Electronic journaling is a new tool for writing skill improvement. The current study attempts to determine whether WhatsApp electronic journaling as a new application in smart phones has a significant effect on writing vocabulary word choice and voice of undergraduate Saudi students. In this quantitative, quasi-experimental study, data are gathered using a pretest-posttest design using a sample of 30 EFL undergraduate female students in Languages and Translation College at AlImam Mohammad Ibn Saud Islamic University in Saudi Arabia. A rubric is used to score a writing sample from each student before and after treatment, and significance is measured using Kruskal-Wallis, Friedman, and the Wilcoxon tests. In this action research, Saudi undergraduate English students are required to post their reflective comments on different topics to their group which was created through WhatsApp. The students react well to the discussions through their dialogue journaling. They treat it as if it were play rather than class work; however, at the end of the experiment, the students know more about the writing processes of one another and their use of words is improved. This sense of enjoyment allows for the students to use WhatsApp electronic dialogue journaling as a tool for learning. Results indicate a significant difference between the overall writing scores of the pretest and posttest of the students that journaled. In addition, examination of individual item scores reveals that there are statistically significant improvements in vocabulary word choice and voice as two critically important writing factors. The study can raise a positive social change by helping teachers understand the prospective benefits of WhatsApp electronic dialogue journaling to improve the vocabulary word choice and voice writing skills of their students.

Keywords*:* WhatsApp, journaling, EFL Saudi students, improving, writing, voice, choice

Introduction

Writing is a complex activity, and as students enter the workforce, they will be asked to convey ideas and information in a clear manner. This increase in writing importance as well as the eventual writing skill development will allow the students to graduate with a skill that will benefit them for life)Alber-Morgan, Hessler, & Konrad, 2007).

It is difficult to teach writing without using direct instruction (Walker, Shippen, Alberto, Houchins, & Cihak, 2005). Even with direct instruction, writing requires that students draw on many skills at the same time. The student must write, think and compose, all the while using proper grammar and spelling (Kieft, Rijlaarsdam, Galbraith, & van den Bergh, 2007). Some students are successful writers while others struggle with the written word (Penrod, 2007).

Journaling, using a pencil and paper, has been an approach used by teachers to allow students a place for reflection in order to improve their writing (Dyment & O'Connell, 2008). Many teachers use paper and pencil journaling in their classroom (Dunlap, 2006). This traditional journaling technique includes giving the students a topic and allowing 5 to 10 minutes to write on the topic.

As the Internet has grown, students have access to resources through email and other communications tools like social network sites and apps for smart phones (Fogg, 2010). With the commercial advent of the Internet and new generation of cell phones in the late 2000's, technologies such as BBM BlackBerry Messages and WhatsApp messages have achieved increasing prevalence in societies. These types of messaging technologies are widely used among undergraduate students today (Lenhart, 2007).

From the researcher's teaching experience in one of Saudi Universities this semester, she noticed that many of the female students have abandoned their text messaging plans in favor of WhatsApp since as most of them have smart phones (personal note). WhatsApp is a free messenger application that works across multiple platforms (iPhone, Android, Blackberry, and Windows Phone) (Fogg, 2010).Instead of sending texts via messaging plan, students use WhatsApp to send messages and photos over data plan or WiFi network. In addition, they can also send multimedia messages such as photos, videos, audios…as well through the app.

Between WhatsApp and how many students now have smart phones, the researcher decided to use this app in improving the English Writing skills of Saudi undergraduate students in Languages and Translation College at AlImam University. Through focusing on using WhatsApp application, the researcher believes that this would help the students to become better writers which both parents and students believe is important to their future careers. Magrath (2003) stated that "writing today is not a frill for the few, but an essential skill for the many" .To achieve this goal of increasing writing skills, WhatsApp electronic journaling was examined as a method to help the students develop their writing skills.

The current study was an attempt to discover the effect of WhatsApp electronic dialogue journaling on writing development of Saudi undergraduate students .The findings of this study would help to determine whether this activity should be recommended as an activity that promote improved writing skills as marked in a rubric specifically scoring vocabulary choice, and voice.

What Is a Dialogue Journal?

A dialogue journal is a written conversation in which a student and teacher communicate on a regular basis. Students write as much as they choose and the teacher writes back responding to students' questions and comments, introducing new topics, or asking questions (Dunlap, 2006). The teacher is actively participating in the interchange, rather than an evaluator who corrects or comments on the student's writing. The first documented use of dialogue journals was with sixth grade students, both native and nonnative English speakers, in California (Peyton & Staton, 1993).

What is WhatsApp?

WhatsApp is an application available on the new generation of smart phones like IPhone, Android, Blackberry and Nokia mobile phones that allows users to send text messages to each other for free. Users are not charged for a text sent through WhatsApp (Hindu,2011). This is because WhatsApp sends messages through an internet data connection. WhatsApp supports many different message types, from simple text to pictures to audio files and videos.

Academic Effects of WhatsApp Messaging

While most educationalists recognize that WhatsApp messages are widely used by undergraduate students in Saudi Arabia, there seem to be two distinct opinions of its effect on student academics. There are those who see the use of so-called "Internet English" as a breakdown of the English language; some teachers see the creeping abbreviations as part of a continuing assault of technology on formal written English. Conversely, there are those who regard this same "Internet English" not only as an example of how language is constantly developing and changing, but also as a type of literacy in and of itself, which can be capitalized on to engage students in more traditional learning.

Some educators take electronic messaging usage as a more positive trend, and revel in how comfortable today's students are with writing, and how much easier it is for them to get words on a page (or, more often, screen). Barbara Bass, director of the Maryland Writing Project, points out "For a while, people were not writing anything. Now, people are actually seeing words on phone screens. And that's good" (Helderman, 2003). Linhart (2007) stated that instant messaging and e-mail are creating a new generation of teenage writers, accustomed to translating their every thought and feeling into words. They write more than any generation has since the days when telephone calls were rare.

Other educators even see the pervasiveness of the frequently-changing electronic messages terminology as an opportunity to teach students about language evolution. Erika Karres, a teacher educator, "shows students how English has evolved since Shakespeare's time" (Lee, 2002,).

WhatsApp Messaging and Writing?

One of the most interesting things about WhatsApp messaging and other popular technologies (text messaging, video games, etc.) is that they are potential learning tools (Dearstyne, 2011 Brown-Owens, Eason, & Lader, 2003).They can be bound by educationalists

to help students learn school-related content, as is shown by teachers who "encourage students to use messaging shorthand to spark their thinking processes" (Lee, 2002).

With this said, students have trouble seeing the distinction between formal and informal writing, and consequently use informal message abbreviations in more formal writing situations (Brown-Owens, Eason, & Lader, 2003). However, this problem is not unsolvable; students can be taught both to understand what constitutes correct language, and also to know when different types of language are appropriate to use (Helderman, 2003.)

Joylyn Hannahs, an English teacher, told her students that "if they turned in papers written like mobile messages, their grades would suffer" (Helderman, 2003.) Her threat worked. Students no longer make those same mistakes, indicating that students can learn the appropriateness of language in different situations. Some educators believe that this type of language misuse is the fault of the students. Obviously there are cases where this is true, as well as cases where it is not. However, regardless of the situation, teachers can work to ensure that students develop a sense of audience when writing.

To take the benefit of adapting literateness education to the truth that electronic messaging is the prevailing mode of written communication in the lives of many undergraduate students, educationalists are to combine writing, electronic journals as they may improve students' writing skills (Raab, 2007).Teachers realize that when students are excited about their writing they will take more care with the final product (Rowen,2005).

New communicative applications such as WhatsApp should not be used just for the sake of wasting time and chatting. There has to be a goal that the teacher is trying to reach. It may help students in improving their writing products in a delightful way.

Problem Statement

Educators have started to notice the new technologies and explore their effects on student behavior and performance. While there is supporting evidence to suggest that these technologies have a large influence on the social development of adolescents, an even more pertinent issue for classroom teachers is what effects these technologies have on the academic development of young people (Fogg, 2010).

As the researcher is a university professor at one of Saudi universities, she noticed that more and more undergraduate students are using smart phones and WhatsApp applications in their writings in Saudi Arabia. The researcher felt that there was a need for a study on the effects of WhatsApp electronic journaling on students' writing achievement to find out if it would improve the writing skills of undergraduate students in Saudi Arabia. In this research, the researcher examined how EFL undergraduate Saudi students' use of WhatsApp technical applications in English dialogue journals improves their writing vocabulary, word choice and voice.

Research Question

The current research attempted to answer the following question: For students that use WhatsApp electronic journaling, is there a significant difference between the pretest and posttest scores on the development of two specific writing skills: vocabulary word choice and voice? To answer this question, a Friedman's test of mean ranks and a Wilcoxon nonparametric test on the

posttest scores were computed using SPSS, v. 13. In addition, the mean scores of the rubric were compared.

Operational Definitions

Journaling: The act of a written conversation in which a student and teacher communicate regularly (daily, weekly, etc., depending on the educational setting) over a semester, school year, or course (Cisero, 2006). Reflection: The act of thinking about a concept to better understand that concept (Dunlap, 2006). Writing prompt: A specific topic assigned for students to write about (Pike-Baky, 2005). WhatsApp: A proprietary, cross-platform instant messaging application for smart phones. In addition to text messaging, users can send each other images, video, and audio media messages. The client software is available for: Android; BlackBerry OS, iOS; Series 40, Symbian (S60); and, Windows Phone. Web 2.0: A term referring to a group of applications that can be used by accessing the Internet and allowing the user to read content as well as produce or reply to the content.

Significance of the Study

This study brings to light the use of smart mobile phones and applications on these phones such as WhatsApp for tasks like journaling and their effect on writing skills development in an educational setting. The study looks specifically at female Saudi undergraduate English students. It also looks at writing skills as evidenced by a modified rubric including vocabulary word choice and voice. This is significant because it informs teachers about the use of these tools in education. Teachers have long been using journaling as a tool in writing skill development (Dunlap, 2006).

With the addition of the new technical generation of smart mobile phones, teachers need to be informed about the possible uses of these tools in the classroom. If it is found that journaling has a positive effect on the development of particular writing skills, then the addition of this activity will help students to improve their writing abilities.

This study may have an effect on social change by helping university EFL instructors increase the writing skills of their students. Even more, university instructors need to know if certain writing skills can be enhanced by using WhatsApp electronic journals for undergraduate students.

Literature Review

This review of literature begins with a short history of writing and journaling, and their impact on the writing process. It will continue with the review of the theoretical framework of Siemens's 2005 connectivism and research on electronic journaling as a tool that may help students become better writers.

In the beginning of the 20th century, writing became a phenomenon that needed to be measured. The measurement was not on the content of the writing but on the handwriting that produced it (Yancey, 2009). As people become skilled at word processing, handwriting is evolving out of the picture. The use of computers is slowly replacing writing as the main mode of communications (Ardilla, 2004).

With the invention of computers, the options are different than when writing was first taught. Both journaling and sending messages through emails or mobile devices are used to communicate with the written word. Journaling has been used in different formats since the Greek and Roman rhetorical education (Autrey, 1987). Rohman (1965) published and recommended journaling as a tool for the prewriting process. Rohman found that students found the journal the most useful of any tools that were allowed. He gave the students the choice of keeping a journal, practicing mediation, or composing an analogy. Journaling was viewed as successful because the students were pleased that the journal helped them to develop voice.
As people become skilled at word processing, handwriting is devolving out of the picture. The use of computers and mobile phones are slowly replacing hand writing as the main mode of communications (Ardilla, 2004). Online bulletin boards and chat rooms, email, text messages, and chatting apps are all means of composing and communicating written messages while on a computer and smart phone rather than using pencil and paper. This allows people to compose and also to participate as an audience.

Yancey (2009) stated that the 21st century will be known as a new era in writing where people who compose are not necessarily taught through formal instruction, but rather they will use a process called co-apprenticeship in which the students write authentic texts and are evaluated by peers rather than instructors. This is the essence of WhatsApp electronic journaling.

Actually, Lenhart (2007) emphasized the previous idea in his report " the Internet and Teens" .He claimed that teenagers appreciate the ability to revise and edit more easily on a computer and a smart phone than with paper and pencil, but they see no correlation between using a computer or a smart phone and the quality of their composition writing. This is the concern of the educators who are encouraging the use of technology in their students' learning. It is essential to care about quality as well as quantity in the written pieces.

To add, Dearstyne (2011) indicated that smart phone applications can spark creativity as they appeal to the next generation. Moreover, WhatsApp can be useful for communicating. It is a community building tool for students who might be physically isolated for some other reason.
In addition, Yancey (2009) suggested that the study of writing needs to be restored in three steps. First, teachers should use newer technologies to increase writing skills. The second step is to design a new model for a writing curriculum. The last step includes creating new models for teaching that allow the students to communicate using all available technologies both inside and outside the traditional classroom. This is the spirit of teaching development either in writing or other language skills.

On the same hand; Solomon and Schrum (2007), emphasized that smart phones allow for a dialogue between reader and writer. They also encourage a community to be built between the readers and the writer. WhatsApp journaling is a way to communicate to an authentic audience. Furthermore, as students are journaling, they learn from writing about issues as well as from the people who respond to their messages. WhatsApp provides a fresh insight that will help to foster knowledge and information sharing.

In fact, Journaling has been used in different formats since the Greek and Roman rhetorical education (Autrey, 1987). Rohman (1965) published and recommended journaling as a tool for the prewriting process. Rohman found that students found the journal the most useful of any tools that were allowed. He gave the students the choice of keeping a journal, practicing mediation, or composing an analogy. Journaling was viewed as successful because the students were pleased that the journal helped them to develop voice.

Journaling is a culminating writing activity after reading or making a decision about any topic (Lenhart,2007). He said that the process reflects lifelong learning and that electronic journaling reflects the way that people who are not in school learn.

Ramaswami (2009) conducted a study to see if electronic journaling could improve writing skills as a result of writing more frequently. Using five teachers, the study looked at technology and its effect on student achievement. The students used the electronic journal while working to elaborate the arguments for the paper. The results showed that the students who used electronic journaling felt better about their writing and 74% of the students believed that journaling helped them to articulate their ideas better.

Working with community college students and faculty, Glass and Spiegelman)2010) created a phone course group that allowed the students to converse via telephone with one another as well as the instructors. The course group that they established allowed the students to become experts in one aspect of the course. The group was used at one point to generate a spontaneous discussion. Using the phone group allowed the students a place to communicate with each other in a place other than the classroom. After observing the students for an entire year it was found that students preferred the phone course group to individual discussions mostly because of the communications aspect of the course group. The researchers found that the phone course group allowed the students to be more actively involved in the learning process.

In a case study, Siemens (2009) found that students who were journaling in English felt more confident using the language in writing. Using a pilot study approach, the 16 students enrolled in intermediate college-level English participated in two different electronic journals, a personal one, and a community one.The community journal was led by the instructor for 3 weeks and then the students took turns leading the discussion. Data from this survey confirmed the writers find communicating through cyberspace more motivating than traditional writing with paper and a pencil. The number of words that the students wrote was higher than what was required of them. The students commented that the stress was less when writing in an electronic journal than in a traditional writing assignment.

In an English classroom, Kajder and Bull (2004), worked with a teacher who decided to use electronic journaling in her classroom as a personal journal for students. Students wrote more in the electronic journal than they wrote when they used a paper and pencil journal. They enjoyed the speed and ease of typing.

As a final point, after reading and revising the related literature, the researcher concluded that there were a lot of previous studies which explored the utility of using the dialogue journal in the writing teaching process. One of them was on using the electronic dialogue journaling through using the computer. However, the previous studies dealt with teaching writing as a whole skill without focusing on the separate skills of writing such as vocabulary word choice and voice.

In addition, in the previous studies the dialogue journaling was conducted either through electronic mails (e-mails) which need a computer and internet access, or a paper and pencil, while the present study was conducted through an easy access, free application which is used easily in students' everyday life. WhatsApp is one of the most popular social media's applications in Saudi Arabia.

Accordingly, the researcher realized that there was a shortage in studies, which investigated the effect of electronic applications. These applications are widely used nowadays

through the new generation of smart phones in the World in general and in the Arab World in particular, especially in teaching English Writing.

Eventually, based on the findings and recommendations of the previous researches, the researcher attempted to find out the effect of WhatsApp electronic journaling on improving the vocabulary word choice and voice writing skills of Saudi undergraduate students at Al Imam University. The results of the current study may serve as an evidence of the effectiveness of new chat applications in smart phones as teaching and learning tools.

Theoretical Base

Siemens (2006) is the author of a learning theory called connectivism. According to Seimens, when students use digital tools to connect, students are able to "reflect on dialogue about, and internalize content in order to learn." This connection helped students develop the ability to create new knowledge at any point in time. Technology allowed for students to connect to each other.

On the other hand, journals were not used for connecting in the same pattern although Siemens did highlight the ability to organize knowledge as a characteristic of connectivism. Using a journal to reflect, internalize, and process knowledge allowed the student to progress to the personalization stage in the Knowledge Flow Cycle (Siemens, 2006). Journaling, as a method of writing, allowed different means of connecting which allowed the students to collaborate and learn from each other. Learning and knowledge are related to the connections between people with digital resources (Siemens, 2005).

Connectivism is the theory that acknowledges that learning is no longer an individual activity, but rather a process that allows for students to flourish in the digital era (Siemens, 2005).(Siemens and Tittenberger , 2009) also offers that the capacity to connect to others and form networks will become more important as the influx of information continues to increase.

Methodology

This study was conducted in the Translation and Languages College in a female branch of an Islamic University with a population of more than 2000 students in the capital city of Saudi Arabia. English undergraduate students are studying writing skills in the eight levels of their study at university. They started at a basic writing level and proceed to writing a research paper. The Faculty uses high quality writing textbooks from Oxford University Press (Oshima, Alice et al., Writing Academic English 4th ed. Longman, 2006).

At the time of the study, there were twenty English Ph.D and MA holders comprising the faculty who taught writing skills in the college. Students were divided into ten different writing sections with each class having approximately 30 students each.

In this quantitative, quasi-experimental study, one English writing class (level five) was chosen randomly to electronically journal daily for a six-week period of time for a total of 30 entries using the WhatsApp application. No feedback was given on the journaling. The study was quantitative because the scores of the students on the rubric that was used to score their writing were compared. It was quasi-experimental because a computer assigned the students, but they are all English undergraduate students, so placement was not entirely random. Pretest and posttest measures of scores on writing topics were collected and assessed by two English

teachers that do not teach these undergraduate English students, using a rubric developed by Read Write Think and the National Council of Teachers of English.

A writing topic was assigned to the students on the first day of the study. This topic was scored using the rubric. At the end of six weeks, the students wrote again using another writing topic (See appendix A) and it was scored using the same rubric by the same two teachers. The rubric contained the categories organization, content vocabulary/word choice, voice, sentence fluency, and conventions (mechanics). The researcher modified it to measure the vocabulary word choice and voice only (See appendix B). The scores of the two evaluators were used as a benchmark for the final writing assessment. Additionally, each section of the rubric was scored separately so that the researcher could determine if any of the writing skills had improved. The scores and the data from the rubric allowed the researcher to determine whether or not the scores had improved since the students began WhatsApp journaling using a Wilcoxon test and a Friedman's test comparing mean ranks.

Since the study included groups that were nonequivalent, the use of a pretest and a posttest made the quasi-experimental approach valid. Using both a beginning test and an ending test allowed the researcher to look at the difference in scores based on each individual (Gribbons & Herman, 1997).

Instrumentation and Materials

Two writing tests were used in the study; a pretest and a posttest. They were designed by the researcher. The rubric that was used and modified was developed by the National Council of the Teachers of English. The students who were journaling used the WhatsApp application which was downloaded for free to their smart phones. Since two teachers assessed the writing prompts, a Pearson Correlation coefficient testing for inter-rater reliability was used to assess the consistency of the scores of the
two assessors.

Data Collection and Analysis

On the first day of the study, the students spent 45 minutes responding to a writing prompt. The researcher coded the papers based on which class they were in. This group of papers was given to two teachers to score using the rubric. During each school day thereafter for six weeks, the students journaled using WhatsApp to respond to a daily prompt. No feedback was provided on the journals until after the study was complete. On the final day of the study, the students spent 45 minutes to respond to a second writing prompt.

The research question was scored using a writing rubric that has six different scale criteria from 1 to 6 (See Appendix B). These scores were added so that there was a potential total score of 36 on the rubric. The scores were compared by subgroup as well as by specific writing skill. They were analyzed using a Kruskal Wallis test which is most commonly used when there is one nominal variable and one measurement variable, and the measurement variable does not meet the normality assumption of an ANOVA (McDonald, 2009). The two different categories scored on the rubric were compared using a Friedman's analysis of mean ranks which is an appropriate alternate statistical aid when looking at multiple analyses and possible interaction (MacFarland,1998), and a Wilcoxon test on vocabulary word choice and voice. Each of these

skills was given a score of 1 to 6 depending on how well the students performed on each one. Each subgroup was analyzed separately by running a Kruskal Wallis test to determine if the treatment had a significant effect on each subgroup. Each skill was examined by treatment group using the Friedman's analysis of mean ranks and the Wilcoxon test to see if WhatsApp journaling had an effect on the development of specific writing skills.

To sum up, being able to analyze these scores by disaggregated groups as well as by specific writing skill using the Kruskal Wallis test, the Wilcoxon test, and the Friedman's analysis of mean ranks provided the data necessary either to recommend the WhatsApp dialogue journaling treatment, or not.

Assumptions

It is assumed that the writing English teachers followed the curriculum laid out by the English department. It is also assumed that the students were able to write a five paragraph persuasive essay at the time of the study. It is assumed that the classes had access to smart mobile phones to update their journals via the WhatsApp application.

Results

The purpose of this study was to discover the effect of WhatsApp electronic dialogue journaling on writing development as marked in a rubric specifically scoring vocabulary word choice and voice. Improving voice and choice are important skills that teachers need to work to improve. This study showed that these writing skills benefited from WhatsApp electronic dialogue journaling.In regards to the research question, the Friedman test revealed that the mean of the vocabulary choice section reached 2.59 in the journalers' group. The Wilcoxon test revealed that voice improved significantly ($p = .030$).

This improvement could signal teachers to allow those students who are having a problem with vocabulary word choice and/or voice in their writing to use WhatsApp journaling. The results signify that writing in a journal for an extended period of time may foster growth in these writing skills.

According to Solomon and Schrum (2007) electronic dialogue journals allowed for the reader and writer to develop a dialogue and a community. As WhatsApp was a part of a new smart phones' technology, it was to appeal to the members of the net generation and the word choice and voice would be better because the students were allowed to express their creativity (Deaerstyne,2005(.Word choice and voice were improved in the posttest of this study, as well.

Moreover, electronic journaling was considered to be a tried and true method for helping students to develop their voice (Ramaswami.2009). Hubbs and Brand (2005) found that students moved toward a level of contemplation with journaling. This was consistent with the results of this study since voice was one of the two writing traits that showed significant improvement ($p = .030$) for journalers.

The research from this study allows the teacher of writing to understand the implications of using WhatsApp electronic dialogue journaling as a tool to teach writing. Therefore, it can be used to teach writing. In addition, the research revealed that voice and vocabulary choice can be improved with the addition of WhatsApp journaling to the writing activities that are already used in the writing class.

To conclude; the current study exposes that WhatsApp electronic journaling shows a significant improvement of writing skills, especially concerning the voice and vocabulary word choice.

Discussion

When looking at the treatment of WhatsApp electronic journaling, the mean ranks of the posttest scores show journalers to have a higher mean score than the pretest. This indicated that WhatsApp electronic journaling showed significant improvement towards writing, suggesting the task would be a good option to improve writing scores. Since only 22% of undergraduate university students write at or above the proficient level (Magrath, 2003), the results of this study are important to helping university English instructors find new and updated methods that are using the new technology to assist students in improving writing skills which are needed later on in life. This would indicate that teachers need to use any means available to develop this skill. Since journaling is a viable method, teachers should use this method to help improve writing skills that will help the students as they get a job.

Since WhatsApp electronic journaling is an online activity and there is a possibility of a public audience in the group, it was proposed by the connectivism theory that the students may be concerned with the possibility of people being able to view their finished product (Seimens, 2006) and consequently might write more productively for an audience. Journaling was a factor in improving writing scores in a research study conducted by Ramaswami (2009). In addition, a class electronic journal in a college classroom was a factor in allowing students to communicate to each other outside of the normal classroom (Glass & Spiegelman, 2008. (

Kajder and Bull (2004) researched an undergraduate class and found that students wrote more when they were using a computer for their electronic journaling instead of a paper and pencil journal. The sample group used the WhatsApp electronic journaling to write responses in this study showed a significant improvement in their writing skills.

Journaling has been considered to be a tried and true method for helping students to develop their voice (Rohman, 1965). Hubbs and Brand (2005) found that students moved toward a level of contemplation with journaling. This was reliable with the results of this study since voice was one of the two writing traits that showed significant improvement for journalers.

To sum up, this research allows the university EFL instructors of writing to understand the implications of using WhatsApp electronic journals as a tool to teach writing. In addition, the research revealed that voice and vocabulary word choice can be improved with the addition of WhatsApp electronic journaling. EFL instructors should know that this method can help students to develop writing skills. In addition, if an instructor is trying to encourage students to develop their own voice or improve their word choice in their writing, this study models an effective method.

Conclusions and Recommendations

Journaling has been a tool that has been used to teach writing. WhatsAapp electronic journaling is a newer tool, but nonetheless it is a valuable tool for teachers to use with their students.This study provides data showing that student's writing skills can be improved with WhatsApp electronic journaling in a relatively short period of time. It is possible that university EFL instructors will consider having all students keep an electronic journal.

In addition, using this method allows university EFL instructors to make use of current technology as well as century-old methods to help their students develop writing skills.However; the current study has a number of limitations that include the selection of the writing prompt topics, since some topics were easier for students to write about. There were only two writing prompts with only six weeks of journaling between them. Another limitation was that the study was conducted with only one section of 30 female students as an experimental group with no control group. An additional boundary was the running of the study in the second semester of 2013 in one university in Saudi Arabia with undergraduate female students.

Using WhatsApp electronic journaling will allow university EFL instructors to add writing to their subject matter across the curriculum while helping their students to improve their writing skills at the same time. Electronic journaling is a tool that significantly helps students develop their voice and improve the vocabulary word choice in their writing. Instructors could spot students that need work in improving the specific skills of voice and vocabulary word choice and incorporate electronic dialogue journaling into an individualized assignment for them to help improve those skills.

In light of the results of this study, university EFL instructors need to be aware that WhatsApp electronic dialogue journaling methodology could be an effective method of helping their students to improve their writing scores. English language instructors in Saudi Arabia need to be made aware of the implications of this study because it will give them options in teaching their students to write.

Moreover, as this was a short term study, there is a need for a longitudinal study looking at the development of writing skills over a longer period of time, following students for at least one year but possibly four years, while they complete undergraduate level coursework.

Decision Makers at the Ministry of Higher Education and Universities in Saudi Arabia should consider introducing training programs for less experienced teachers that center primarily on ways of using new applications such as WhatsApp effectively in students' classrooms.

Training programs on ways of incorporating WhatsApp and other chat applications in the new generation of smart phones into the Writing classroom should further be introduced for the more experienced teachers of languages in universities. Both, less and more experienced teachers should be coached on how to implement active and interactive Electronic dialogue journaling activities into the undergraduates' Writing classroom.

The researcher believes that with the proper training and the support from figures of authority students' writing skills can easily be improved. Consequently, this will result in students becoming more fluent writers, and will inevitably start to think critically in what they write and change their attitude toward the Writing skill.

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Appendix A

Writing Rubric

Word Choice and Author's Voice

Author's Name

Title of Piece

	1 **Does not meet**	**2** **Partially Meets**	**3** **Does Not Fully Meet**	**4** **Meets**	**5** **More Than Meets**	**6** **Exceeds**
Vocabulary/ Word Choice	Careless or inaccurate word choice, which obscures meaning.	Language is trite, vague or flat	Shows some use of varied word choice	Uses a variety of word choice to make writing interesting	Purposeful use of word choice.	Effective and engaging use of word choice.
Author's Voice	Writer's voice/ point of view shows no sense of audience	Writer's voice/ point of view shows little sense of audience	Writer's voice/ point of view shows that sense of audience is vague	Writer uses voice/point of view. Writes with the understanding of a specific audience	Writer has strong voice/ point of view. Writing engages the audience.	Writes with a distinct, unique voice/point of view. Writing is skillfully adapted to the audience

Note: The Original Writing Rubric is available at:

http://www.readwritethink.org/lesson_images/lesson782/Rubric.pdf

EXHIBIT 15
THE BREAKDOWN OF STUDENTS WHO RESPONDED TO Q15 (INTENTTION)
BY GENDER (Q1) & BY CLASS YEAR (Q9)

366 =n=100	Male					Female					Total				
	1st Year	2nd Year	3rd Year	4th Year	Total Male	1st Year	2nd Year	3rd Year	4th Year	Total Female	1st Year	2nd Year	3rd Year	4th Year	Grand Total Male & Female
Start own or work for family business	6	18	23	30	77	5	17	18	14	54	11	35	41	44	131
	1.64%	4.92%	6.28%	8.20%	21.04%	1.37%	4.64%	4.92%	3.83%	14.75%	3.01%	9.56%	11.20%	12.02%	35.79%
Work for someone else	15	26	29	36	106	16	33	38	42	129	31	59	67	78	235
%	4.10%	7.10%	7.92%	9.84%	28.96%	4.37%	9.02%	10.38%	11.48%	35.25%	8.47%	16.12%	18.31%	21.31%	64.21%
Total **Excluding no response**	21	44	52	66	183	21	50	56	56	183	42	94	108	122	366
	5.74%	12.02%	14.21%	18.03%	50.00%	5.74%	13.66%	15.30%	15.30%	50.00%	11.48%	25.68%	29.51%	33.33%	100.00%

Relationship Between Students' Personal Reasons and the Students' Intention for Entrepreneurship

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Abstract

This article studies how a group of undergraduate students rate (as important or unimportant) a number of factors (termed as personal reasons) in their intention to start their own business after they have completed their education; whether or not they have attained a degree.

This study shows that, over the class years, proportionately, a smaller number of students (both male and female) intend to become entrepreneurs; while a larger number of students (both male and female) intend to work for someone else.

The research also shows that a large number of students who indicated that they do not intend to start their own business; but instead they intend to "work for someone else", did not at all respond to the personal reasons for starting a business. It may be so because since these students do not want to start their own business in the first place; why should they bother to respond to those reasons for doing so?

Introduction

Organization of Paper

This article, with its voluminous data and text, is divided into the following parts:
- Part 1: Introduction: It contains information on the organization of the paper, research methodology, collection of data, overall purpose of this continuing research, and the purpose of this particular article.
- Part 2: Entrepreneurial Intention: Definition and Survey of literature.
- Part 3: Analysis of relationship between gender (Q1) and class year (Q9) vs students' intention (Q15) of the questionnaire.
- Part 4: Analysis of relationship between students' "personal reasons for entrepreneurship" (as surveyed through Questions 19-27 of the questionnaire) vs their intention for entrepreneurship, etc. (as surveyed through Question 15 of the questionnaire).
- Part 5: References.
- Part 6: Exhibits.

Research Methodology

A 6-page questionnaire containing 91 questions (variables) was designed for this study for distribution among selected undergraduate students studying at Pace University Lubin School of Business during the December 2004 – December 2005 period. Nine of these questions (questions 19 through 27), which are the subject of this article, dealt with the students' "personal reasons for starting their own business."

Data Collection

Of the 435 questionnaires returned by the students, 366 students provided acceptable responses to Q15 (intention for entrepreneurship; or to work for someone else). Further, not all of these 366 students fully answered all of the 19-27 questions. Their actual varying individual responses to these questions are presented in their respective exhibits and analyses.

This is a study of the Lubin School students who were taking undergraduate business courses at different class levels (first, second, third, or fourth year) during the study period. The 366 students chosen for the study were all different individuals. This is not a study of the same individuals as they progressed from their first year of study through to their fourth year.

Purpose of Research

The overall purpose of this continuing research is to find if there is a relationship between a number of independent variables and the students' intention to start a business, or work for someone else, once they have finished their education, whether they have attained a degree or not.

This particular article, however, is limited to studying how these students rate (as important or unimportant) a number of factors (termed as personal reasons in the questionnaire) in their intention to start their own business after they have completed their education; whether or not they have attained a degree.

These nine factors (numbered as 19-27 in the questionnaire) are: (1) Have the necessary education, (2) Have the necessary work experience, (3) Certainty of job, (4) Certainty of income, (5) Chance to make large amount of money, (6) Fringe benefits (medical/dental insurance, retirement, vacation days, etc.), (7) Chance for being creative, (8) Difficult to find a job, and (9) Luck, destiny.

Exhibits: Their Formatting Challenges

Responses from 366 students to a questionnaire with 91 questions, and a number of groups and sub-groups contained in them, generated a huge amount of data. Presenting them in an organized and understandable tabular format created its own challenges. The tabular format used in Exhibits 19-27 presents the final outcome of trials and errors. Each exhibit presents data on the responding groups and sub-groups classified as follows: (a) By gender: Male, female, and their total; (b) By class year: First year, second year, third year, fourth year, and their total; (c) By intention: To start a business; to work for someone else; and their total; (d) By reasons for intention: important, unimportant, and their total; (e) By no-responses; (f) By grand totals; and (b) by percentages.

Numbering of Exhibits Included in this Article

Various exhibits included in this article are numbered and presented as follows:
- Exhibit 1: It presents a copy of Q15 (the independent variable) the way it was included in the questionnaire.
- Exhibit 2: It presents a copy of Q19-27 (the independent variables), the way they were included in the questionnaire.
- Exhibit 15: It presents a breakdown of students who responded to Q15 (Intention) by gender (Q1) & by class year (Q9).
- Exhibits 19 through 27: These exhibits relate to the nine independent variables (Q19-27). Each of these exhibits has two parts (for example, Exhibit 19A, and Exhibit 19B). These numbers for exhibits have been selected for convenience; they relate to their corresponding question numbers in the questionnaire.
  - There are no other exhibits between Exhibit 2, Exhibit 15 and Exhibit 19A.

Differences Between Articles

Since this is a continuing research, this article (the next in the series of articles based upon the same original data base), has used some information that was originally published in the previous articles. This article, however, is entirely different from its earlier siblings in terms of its focus (the variables studied), and its conclusions.

PART 2
ENTREPRENEURIAL INTENTION:
DEFINITION AND SURVEY OF LITERATURE

ENTREPRENEURIAL INTENTION: DEFINTION & FACTORS

Definition

I believe that intention is a state of mind; it suggests the starting point of doing or not doing something; a goal. It represents one's thoughts to maintain his/her current position and/or to change it; often to improve upon it. It is symbolic of human presence; it is a pre-requisite of human existence. Intention leads to behavior to accomplish those goals. Entrepreneurial intention leads to business ideas; business plans; and business ventures.

According to **Schumpeter** (1934), innovation was the central characteristic of the entrepreneurial endeavor.

Mill (1948; cited in **Carland** et al., 1984) believed that the key factor in distinguishing a manager from an entrepreneur was the bearing of risk.

According to Bird (1988), entrepreneurial intentions are aimed at either creating a new venture or creating new values in existing ventures (Bird, 1988). According to **Krueger**, et al. (2000; cited in Tong et al., 2011) entrepreneurial intention is a reliable measure of entrepreneurial activity and behavior.

Factors

Entrepreneurial intention is influenced by (a) one's own background and (b) one's environment. The literature is replete with the factors that influence such intention. A sample of such factors is presented below using a broad system of categorization.

Factors related to family

According to Van Auken et al., (2006; cited in Tong et. al., 2011), families with a business background often influence and motivate their siblings to involve in entrepreneurial activity and they are expected to possess higher propensity to launch a business in future.

Studies by **Phan** et al. (2002; cited in Tong et al., 2011), and **Breen** (1998; cited in Tong et al., 2011) show that in Singapore and Australia, students are more likely to commence new ventures upon graduation if their parents are in businesses.

Research by **Kirkwood** (2007; cited in Tong et. al., 2011) suggests that fathers have a stronger influence on their children's decisions to become entrepreneurs than mothers' self-employment.

In a study of Malaysian university students, Tong, et al. (2011), concluded that this cohort of students would seek for a stable job for a start. They would choose to become entrepreneurs provided there is a need for achievement, family business background, and subjective influence.

Engle, et al. (2011) made a study of 477 university business students in Germany, Russia and the United States. They found that parental experience and social norms had a significant positive effect on entrepreneurial intent, and taxes had a negative effect on entrepreneurial intent in the German sample. In the Russian sample, gender (female) and taxes were found to have a negative effect on entrepreneurial intent, while social norms had a positive effect. In the U.S. sample, four

variables (parental experience, social norms, infrastructure and trade) were found to have a positive effect on entrepreneurial intent.

Factors related to personal characteristics

Here is a sample of studies that relate personal characteristics to entrepreneurial intention (EI). According to Bandura (1977), entrepreneurial intentions and behavior are influenced by one's self-efficacy (belief in his or her capability to perform a given task).

McClelland (1961) related EI to needs for achievement, affiliation, and power. Brockhaus (1982) associated it with locus of control. Lee & Wong (2004; cited in Tong et al., 2011) and Wilson, et al. (2004; cited in Tong et al., 2011) associated EI with desire for independence. Ryan (1970; cited n Boyd and Vozikis, 1994) related EI to self-perception. Bird (1988) related it to promoting ideas. Farrell (1985; cited in Bird, 1988) connected it to government deregulation of industries.

Schwarz et al. (2009; cited in Tong et al., 2011), however, found that students with positive attitude towards competitiveness do not warrant entrepreneurial intention.

PART 3
ANALYSIS OF RELATIONSHIP BETWEEN
STUDENTS' GENDER, CLASS YEAR vs THEIR INTENTION FOR
ENTREPRENEURSHIP OR TO WORK FOR SOMEONE ELSE (Q1 & Q9 VS Q15)

This part of the article presents an analysis of how various students responded to Q15 (intention for entrepreneurship; or intention to work for someone else) after they have completed their education, whether they have obtained a degree or not.

Number, Type, & groupings of Respondents

1. A total of 366 students answered the Q15 which has three options (a) Start my own business, (b) Work for a business owned by an immediate family member, and (c) Work for someone else. Fourteen students did not answer this question.
    o Of these 366 students, 183 were male and 183 were female.
2. Q9 asked the students about their class year. Of the 366 students answering this question, 42 (11.48%) were first year students; 94 (25.68%) were second year students; 108 (29.51%) were third year students; and 122 (33.33%) were fourth year students.
3. For the purpose of their tabulation and analysis, students' responses to Q15a and Q15b have been combined. This is done for two reasons. One, working for a business owned by an immediate family member is often a first step to become a partner in that business, inheriting that business, or starting one's own business. Two, to present this large amount of data in a more meaningful manner.

Trend of Responses over the Class Years

1. An individual class-year analysis of all the students' sum of responses to Q15a and Q15b shows that they have increased both in terms of absolute and relative numbers: from 11 (3.01%) to 44 (12.02%).

2. An individual class-year analysis of all the students' responses to Q15c also shows that they have increased both in terms of absolute and relative numbers: from 31 (8.47%) to 78 (21.31%).

3. A total four year analysis of all students' (male and female) responses to the sum of Q15a and Q15b (intention to become entrepreneur) and their responses to Q15c (work for someone else) shows that less students intend to become entrepreneur (131 students, or 35.79%); and more students want to work for someone else (235 students, or 64.21%).

4. In other words, over the class years, proportionately, a smaller number of students (both male and female) intend to become entrepreneurs; while a larger number of students (both male and female) intend to work for someone else.

5. A substantial number of students who responded to Q15c ("work for someone else), both male and female, and across the class years, did not respond to Q19-27 classified by their importance and unimportance. It may be so because these students want to work for someone else; they do not want to start a business; so why should they be interested in the personal reasons for starting a business?

PART 4
ANALYSIS OF RELATIONSHIP BETWEEN
STUDENTS' PERSONAL REASONS FOR ENTREPRENEURSHIIP vs THEIR
INTENTION FOR ENTREPRENEURSHIP OR TO WORK FOR SOMEONE ELSE
(Q19-27 vs Q15)

This part of the paper presents an analysis of how various students who responded to Q15 (intention for entrepreneurship; or intention to work for someone else) rated (as important or unimportant) a number of factors (termed as personal reasons) in their intention to start their own business after they have completed their education; whether or not they have attained a degree.

For the purpose of this research, the first two types of responses, namely, (a) "unimportant" and (b) "important (somewhat)" are classified as "unimportant" for further analysis. It is so because "somewhat important" is of lesser significance than the third choice, "average important."

Likewise, the next three types of responses, namely, (c) important (average), (d) important (above average), and (e) very important are classified as "important" for further analysis.

Q15 (Intention) vs Q19 (Having the necessary education)
1. Of the 131 students who answered to Q15a and Q15b (intention for entrepreneurship), only 119 students answered to Q19. Twelve of them did not answer this question.
    a. Of these 119 students (=n=100), 74 (62.18%) were male and 45 (37.82%) were female.
    b. Of these 119 responding students, 99 (83.19%) said that "having the necessary education" is an important reason for intention for entrepreneurship; while 20 (16.81%) said that "having the necessary education" is an unimportant reason for entrepreneurship.

2. Of the 235 students who answered to Q15c (working for someone else), only 67 students answered to Q19. As many as 168 students did not answer this question.

a. Of these 67 students (=n=100), 39 (58.21%) were male; and 28 (41.79%) were female.
b. Of these 67 responding students, 62 (92.54%) said that "having the necessary education" is an important reason for intention for entrepreneurship; while 5 (7.46%) said that "having the necessary education" is an unimportant reason for entrepreneurship.

Q15 (Intention) vs Q20 (Having the necessary work experience)

1. Of the 131 students who answered to Q15a and Q15b (intention for entrepreneurship), only 118 students answered to Q20. Thirteen of them did not answer this question.
      a. Of these 118 students (=n=100), 74 (62.71%) were male and 44 (37.29%) were female.
      b. Of these 118 responding students, 103 (87.29%) said that "having the necessary work experience" is an important reason for intention for entrepreneurship; while 15 (12.71%) said that "having the necessary work experience" is an unimportant reason for entrepreneurship.

2. Of the 235 students who answered to Q15c (working for someone else), only 67 students answered to Q20. As many as 168 students did not answer this question.
      a. Of these 67 students (=n=100), 39 (58.21%) were male; and 28 (41.79%) were female.
      b. Of these 67 responding students, 61 (91.04%) said that "having the necessary work experience" is an important reason for intention for entrepreneurship; while 6 (8.96%) said that "having the necessary work experience" is an unimportant reason for entrepreneurship.

Q15 (Intention) vs Q21 (Having the certainty of job)

1. Of the 131 students who answered to Q15a and Q15b (intention for entrepreneurship), only 118 students answered to Q21. Thirteen of them did not answer this question.
      a. Of these 118 students (=n=100), 74 (62.71%) were male and 44 (37.29%) were female.
      b. Of these 118 responding students, 97 (82.20%) said that "having the certainty of job" is an important reason for intention for entrepreneurship; while 21 (17.80%) said that "having the certainty of job" is an unimportant reason for entrepreneurship.

2. Of the 235 students who answered to Q15c (working for someone else), only 67 students answered to Q21. As many as 168 students did not answer this question.
      a. Of these 67 students (=n=100), 39 (58.21%) were male; and 28 (41.79%) were female.
      b. Of these 67 responding students, 60 (89.55%) said that "having the certainty of job" is an important reason for intention for entrepreneurship; while 7 (10.45%) said that "having the certainty of job" is an unimportant reason for entrepreneurship.

Q15 (Intention) vs Q22 (Having the certainty of income)

1. Of the 131 students who answered to Q15a and Q15b (intention for entrepreneurship), only 118 students answered to Q22. Thirteen of them did not answer this question.
   a. Of these 118 students (=n=100), 73 (61.86%) were male and 45 (38.14%) were female.
   b. Of these 118 responding students, 101 (85.59%) said that "having the certainty of income" is an important reason for intention for entrepreneurship; while 17 (14.41%) said that "having the certainty of income" is an unimportant reason for entrepreneurship.

2. Of the 235 students who answered to Q15c (working for someone else), only 67 students answered to Q22. As many as 168 students did not answer this question.
   a. Of these 67 students (=n=100), 39 (58.21%) were male; and 28 (41.79%) were female.
   b. Of these 67 responding students, 61 (91.04%) said that "having the certainty of income" is an important reason for intention for entrepreneurship; while 6 (8.96%) said that "having the certainty of income" is an unimportant reason for entrepreneurship.

Q15 (Intention) vs Q23 (Having a "chance to make a large amount of money")
1. Of the 131 students who answered to Q15a and Q15b (intention for entrepreneurship), only 118 students answered to Q23. Thirteen of them did not answer this question.
   a. Of these 118 students (=n=100), 73 (61.86%) were male and 45 (38.14%) were female.
   b. Of these 118 responding students, 107 (90.68%) said that "Chance to make large amount of money" is an important reason for intention for entrepreneurship; while 11 (9.32%) said that "Chance to make large amount of money" is an unimportant reason for entrepreneurship.

2. Of the 235 students who answered to Q15c (working for someone else), only 68 students answered to Q23. As many as 167 students did not answer this question.
   a. Of these 68 students (=n=100), 40 (58.82%) were male; and 28 (41.18%) were female.
   b. Of these 68 responding students, 63 (92.65%) said that "Chance to make large amount of money" is an important reason for intention for entrepreneurship; while 5 (7.35%) said that "Chance to make large amount of money" is an unimportant reason for entrepreneurship.

Q15 (Intention) vs Q24 (Having "fringe benefits")
1. Of the 131 students who answered to Q15a and Q15b (intention for entrepreneurship), only 117 students answered to Q24. Fourteen of them did not answer this question.
   a. Of these 117 students (=n=100), 73 (62.39%) were male and 44 (37.61%) were female.
   b. Of these 117 responding students, 88 (75.21%) said that "fringe benefits" is an important reason for intention for entrepreneurship; while 29 (24.79%) said that "fringe benefits" is an unimportant reason for entrepreneurship.

2. Of the 235 students who answered to Q15c (working for someone else), only 66 students answered to Q24. As many as 169 students did not answer this question.
   a. Of these 66 students (=n=100), 39 (59.09%) were male; and 27 (40.91%) were female.
   b. Of these 66 responding students, 55 (83.33%) said that "fringe benefits" is an important reason for intention for entrepreneurship; while 11 (16.67%) said that "fringe benefits" is an unimportant reason for entrepreneurship.

Q15 (Intention) vs Q25 (Having a "chance for being creative")

1. Of the 131 students who answered to Q15a and Q15b (intention for entrepreneurship), only 114 students answered to Q25. Seventeen of them did not answer this question.
   a. Of these 114 students (=n=100), 71 (62.28%) were male and 43 (37.72%) were female.
   b. Of these 114 responding students, 101 (88.60%) said that "chance for being creative" is an important reason for intention for entrepreneurship; while 13 (11.40%) said that "chance for being creative" is an unimportant reason for entrepreneurship.

2. Of the 235 students who answered to Q15c (working for someone else), only 65 students answered to Q25. As many as 170 students did not answer this question.
   a. Of these 65 students (=n=100), 39 (60.00%) were male; and 26 (40.00%) were female.
   b. Of these 65 responding students, 58 (89.23%) said that "chance for being creative" is an important reason for intention for entrepreneurship; while 7 (10.77%) said that "chance for being creative" is an unimportant reason for entrepreneurship

Q15 (Intention) vs Q26 (it is "difficult to find a job")

1. Of the 131 students who answered to Q15a and Q15b (intention for entrepreneurship), only 113 students answered to Q26. Eighteen of them did not answer this question.
   a. Of these 113 students (=n=100), 68 (60.18%) were male and 45 (39.82%) were female.
   b. Of these 113 responding students, 56 (49.56%) said that "difficult to find a job" is an important reason for intention for entrepreneurship; while 57 (50.44%) said that "difficult to find a job" is an unimportant reason for entrepreneurship.

2. Of the 235 students who answered to Q15c (working for someone else), only 67 students answered to Q26. As many as 168 students did not answer this question.
   a. Of these 67 students (=n=100), 40 (59.70%) were male; and 27 (40.30%) were female.
   b. Of these 67 responding students, 45 (67.16%) said that "difficult to find a job" is an important reason for intention for entrepreneurship; while 22 (32.84%) said that "difficult to find a job" is an unimportant reason for entrepreneurship.

Q15 (Intention) vs Q27 (a matter of "luck, destiny")

1. Of the 131 students who answered to Q15a and Q15b (intention for entrepreneurship), only
   119 students answered to Q27. Twelve of them did not answer this question.
       a. Of these 119 students (=n=100), 74 (62.18%) were male and 45 (37.82%) were
          female.
       b. Of these 119 responding students, 76 (63.87%) said that "luck, destiny" is an
          important reason for intention for entrepreneurship; while 43 (36.13%) said that
          "luck, destiny" is an unimportant reason for entrepreneurship.

2. Of the 235 students who answered to Q15c (working for someone else), only 68 students
   answered to Q27. As many as 167 students did not answer this question.
       a. Of these 68 students (=n=100), 40 (58.82%) were male; and 28 (41.18%) were
          female.
       b. Of these 68 responding students, 49 (72.06%) said that "luck, destiny" is an
          important reason for intention for entrepreneurship; while 19 (27.94%) said that
          "luck, destiny" is an unimportant reason for entrepreneurship.

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PART 6: EXHIBITS
EXHIBIT 1
A COPY OF Q15 FROM THE QUESTIONNAIRE
(INTENTION)

----

15. After you have finished your education (whether you have attained a degree or not), what do you **intend** to do (check one):

a.   Start my own business _____;
b.   Work for a business owned by an immediate family member (spouse, parent, brother and/or sister) _____;
c.   Work for someone else _____

Note: For the purpose of their tabulation and analysis, students' responses to Q15a and Q15b have been combined. This is done for two reasons. One, working for a business owned by an immediate family member is often a first step to become a partner in that business, inheriting that business, or starting one's own business. Two, it would help present this large amount of data in a more meaningful manner.

EXHIBIT 2
A COPY OF Q19-27 FROM THE QUESTIONNAIRE
(PERSONAL REASONS FOR INTENTION)

**If you intend to start your own business, what are your reasons to do so. Check the
applicable box for each item.**

Note: Each of the 9 questions (19-27) presented below had 1-5 possible answers: (a)
Unimportant, (b) Important-somewhat (c) Important-average, (d) Important-above average,
and (e) Very important.

	Un-important (a)	Important (some what) (b)	Important (average) (c)	Important (above average) (d)	Very Important (e)
Personal Reasons for starting a Business					
19. Have the necessary education	_____	_____	_____	_____	_____
20. Have the necessary work experience	_____	_____	_____	_____	_____
21. Certainty of job	_____	_____	_____	_____	_____
22. Certainty of income	_____	_____	_____	_____	_____
23. Chance to make large amount of money					
24. Fringe benefits (medical/dental insurance, retirement, vacation days, etc.)	_____	_____	_____	_____	_____
25. Chance for being creative	_____	_____	_____	_____	_____
26. Difficult to find a job					
27. Luck, destiny					

Note: As stated in the text, for the purpose of this research, the first two types of responses,
namely, (a) "unimportant" and (b) "important (somewhat)" are classified as "unimportant" for
further analysis. It is so because "somewhat important" is of lesser significance than the third
choice, "average important."

Likewise, the next three types of responses, namely, (c) important (average), (d) important
(above average), and (e) very important are classified as "important" for further analysis.

The Case Study Method to Examine How ICT and Parental Involvement May Help Narrow the Literacy Gap Among Malay Pre-Schoolers

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Abstract

There is a (literacy) gap among Malay pre-schoolers i.e. pre-school children aged 4-6 years are not reading at their grade level. The Singapore Parliament Report (2009) highlighted that "over the last 5 years, around 12% to 14% of the children who entered Primary 1 have very weak oral English and literacy skills….they were not able to recognize simple English words (or) understand very simple oral instructions in English" (para 42, n.p.). Singapore's Minister for Muslim Affairs Dr Yaacob Ibrahim suggested helping affected families with "parenting skills" (Ibrahim, 2010, p. 3).

This paper focused on the use of the case study method to examine how information communication technology (ICT) and parental involvement might help narrow this gap. It started with a discussion on Singapore's state of ICT- readiness, the choice of preschool, access and potential bias, assumptions, delimitations of this study and a short review of the literature before discussing why this method is preferred.   This case study included a documentary analysis, a survey and an analysis of narratives of Malay parents who are an aboriginal group commonly found in this part of South-east Asia comprising Malaysia, Indonesia, Brunei and Singapore.

The case study site is a group of 3 Singapore preschools and is representative of preschools serving low-income families. Thirty-one teachers and 45 parents or care-givers of children from these pre-schools participated in interviews.   Through this case study method, the issues were more clearly understood so that recommendations were made to enhance literacy levels of pre-school children or pre-schoolers among the Malays, who are over-represented among the poor and the under-performers in school.

There is also a discussion on triangulation of data and the advantages and disadvantages of the case study design. Triangulation took the form of a documentary analysis of related parliamentary speeches on pre-school policies as well as media releases from the Ministry of Education (MOE), Ministry of Community Development, Youth and Sports (MCYS), Ministry of Social and Family Development (MSF), Ministry of Manpower (MOM), Infocomm Development Authority (iDA) followed by a narrative analysis of interviews with teachers and parents.

Broadly speaking, case studies are complex because they generally involved multiple sources of data and consequentially tended to produce large amounts of data for analysis. Nevertheless, with a more in-depth understanding of key questions such as 'why' and 'how', the critical success factors were identified. As was expected, a pattern emerged and several repeated themes surfaced from the narrative analysis including a somewhat unexpected factor, 'religious upbringing'. Indeed, if past racial riots in Singapore served as reminders, then inter-religious and inter-racial relations must be managed sensitively, and this highlighted the importance of advocacy groups such as the Inter-Racial and Religious Confidence Circles (or IRCCs).

This paper focused on the case study as a preferred research method to answer the "why" and "how" research questions. It also briefly demonstrated the technique of discussing the case around several themes before making suggestions for further research.

Keywords: Case Study, Parental Involvement, Malay, Pre-schoolers

Introduction

The statistics on reported literacy gap

There is a (literacy) gap among Malay pre-school children, i.e. they are not reading at their grade level. The Singapore Parliament Report (2009) highlighted that "over the last 5 years, around 12% to 14% of the children who entered Primary 1 have very weak oral English and literacy skills….they were not able to recognize simple English words (or) understand very simple oral instructions in English" (para 42, n.p.). Minister Dr Yaacob Ibrahim suggested helping affected families with "parenting skills" (Ibrahim, 2010, p. 3).
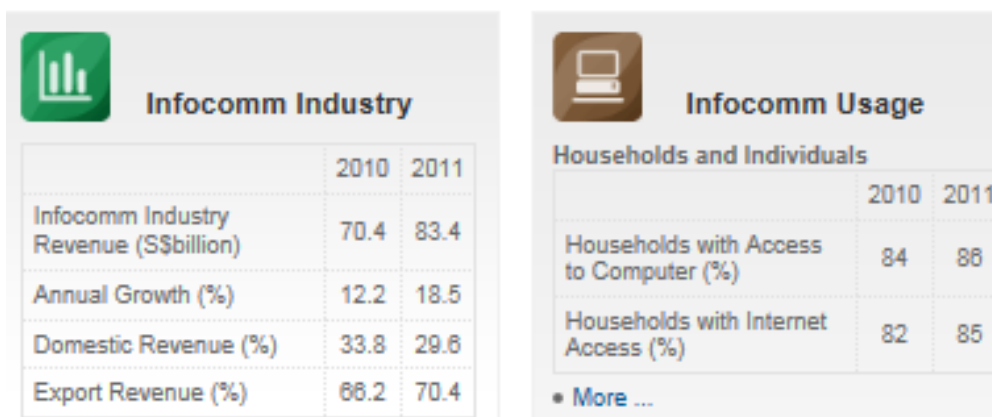
Drilling down to micro-level ICT-readiness data

While the term 'ICT-readiness' or e-Readiness of countries had been investigated by researchers such as Kraemer and Dedrick (2002), and usually in terms of ICT infrastructure, pervasiveness of broadband or even narrow band internet access (p. 31), such research had not drilled down to the ICT-readiness of specific populations such as pre-school teachers or children in Singapore.

Even the iDA, a Singapore government agency, did not have such statistics of pre-school teachers or children because it published statistics at the *macro*-level as illustrated in Figure 1 (iDA, 2012). This is where the case study method could be useful as it investigated "a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident" (Yin, 2009, p. 18)."

Figure 1:
Singapore Infocomm Statistics at Macro-level (iDA, 2012, n.p.)

Singapore Infocomm Statistics at a Glance

This section highlights key infocomm statistics and charts to illustrate Singapore's infocomm development.

Infocomm Industry

	2010	2011
Infocomm Industry Revenue (S$billion)	70.4	83.4
Annual Growth (%)	12.2	18.5
Domestic Revenue (%)	33.8	29.6
Export Revenue (%)	66.2	70.4

Infocomm Usage

Households and Individuals

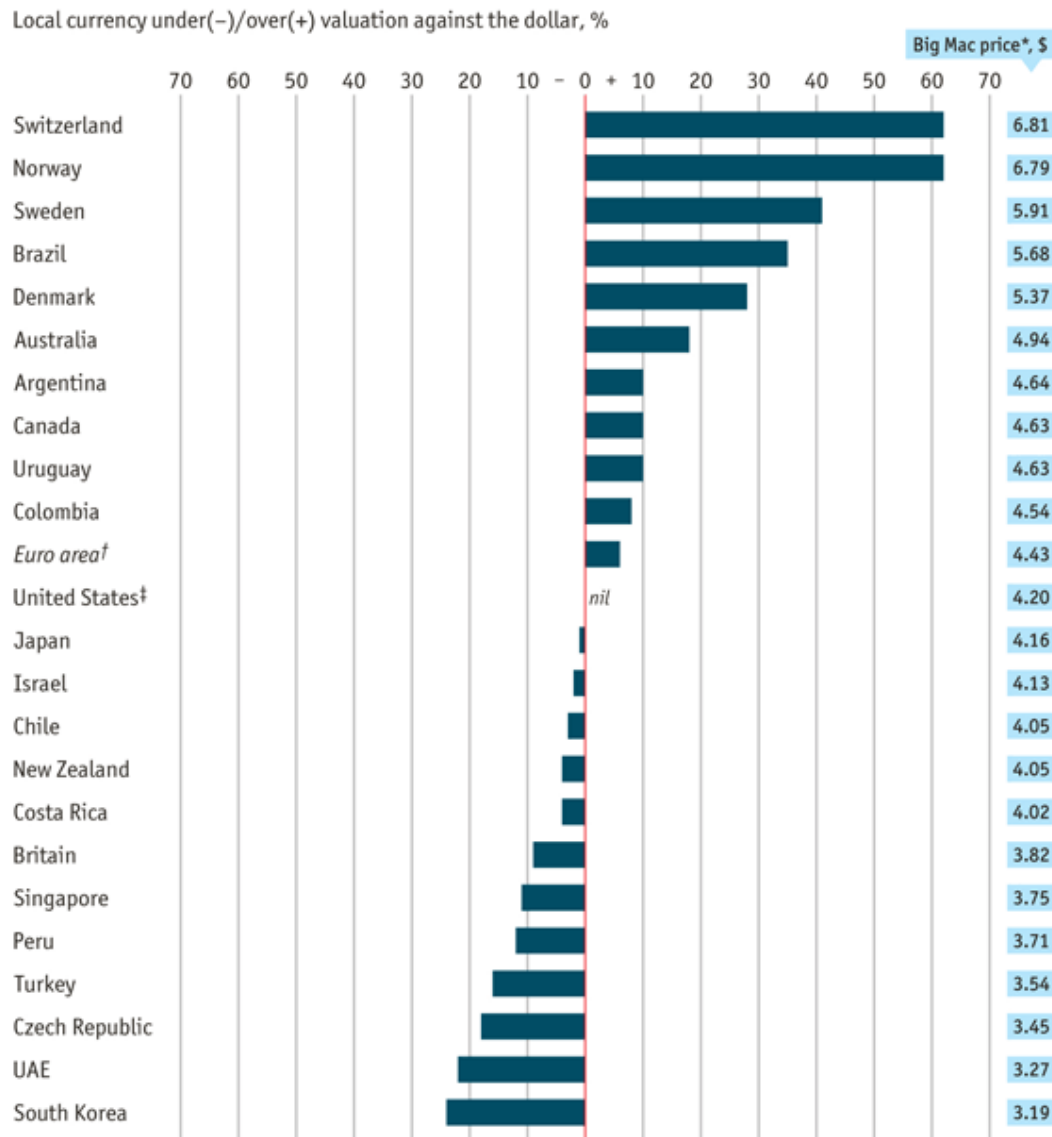|	2010	2011
Households with Access to Computer (%)	84	86
Households with Internet Access (%)	82	85

• More ...

This study could thus potentially present an opportunity to grow and further develop the theoretical and knowledge bases relating to teacher ICT-readiness as we gathered more empirical data so as to understand how ICT and parental involvement might address the literacy gap of Malay pre-schoolers.

Choice of pre-school group

       This group of pre-schools is located in the northernmost part of Singapore, where there is a sizable population of Malay families. The group catered to the heart-landers (Chinese, Malay, Indian and other ethnic minority groups living in government-built apartment blocks) whose household monthly incomes were below $8000 (Housing and Development Board, 2014). However, families who enrolled their children in these preschools tended to have monthly household incomes not exceeding $3000 and the per capita income is less than $600 per month. This is comparatively low, based on the theory of purchasing-power parity such as *The Economist*'s Big Mac index whereby "in the long run, exchange rates should adjust to equal the price of a basket of goods and services in different countries" (Economist, 2012, n.p.). The Big Mac Index is indicative of the relative size of the monthly per capita income of $600.

Figure 2:
Big Mac Index (Source: Economist, 2012, n.p.).

Local currency under(−)/over(+) valuation against the dollar, %

Country	Big Mac price*, $
Switzerland	6.81
Norway	6.79
Sweden	5.91
Brazil	5.68
Denmark	5.37
Australia	4.94
Argentina	4.64
Canada	4.63
Uruguay	4.63
Colombia	4.54
Euro area†	4.43
United States‡	4.20
Japan	4.16
Israel	4.13
Chile	4.05
New Zealand	4.05
Costa Rica	4.02
Britain	3.82
Singapore	3.75
Peru	3.71
Turkey	3.54
Czech Republic	3.45
UAE	3.27
South Korea	3.19

*At market exchange rate (January 11th 2012) †Weighted average of member countries
Sources: McDonald's; The Economist   ‡Average of four cities §Average of five cities **Maharaja Mac

Each of the 3 preschool centres in the participating group operated 2 kindergarten sessions from 8 a.m. to 12 noon, and the afternoon session from 1 p.m. to 5 pm. Each class had no more than 20 children nurtured by a qualified pre-school teacher with a Diploma in Preschool (Teaching).

This preschool group is chosen as the case study site because there is easy access, secured from the Group Chairman who is also the Member of Parliament in the constituency and the Senior Parliamentary Secretary (SPS) for the MOE as well as the MOM in Singapore. Moreover, the composition of teacher population at this pre-school Group is representative of the national population of pre-school teachers, in terms of professional qualifications and experience, in alignment with public policy (MCYS, 2011). Furthermore, the population of

its Malay pre-school children comprising mostly of children from low-income families, is also representative of the population of pre-schools in Singapore.

Access and Potential Bias

Access is strictly for the purpose of research involving the pre-school group. Typically, applying for permission to conduct educational research in a pre-school is a very difficult and tedious process. While much time was spent with the teachers who are voluntarily participating in this case study, it is also important not to be *too* familiar with the teachers or what Luttrell (2003) called "deep hanging out" so as to avoid any bias (p. 147).

The participants

Thirty-one teachers and 45 parents in the participating preschool group answered questions in a semi-structured interview. Non-teaching staff members had not been included because they did not carry out any teaching tasks.

Key Assumption

For this case study, the key assumption is that valuable and reliable information on pre-school teachers' ICT-readiness and parental involvement could be gathered from interviews and the derivative narrative analysis.

Definition of Key Terms

According to Lincoln and Guba (1985), "while the literature is replete with references to case studies and with examples of case study reports, there seems to be little agreement about what a case study is" (p. 360). Since 1985, proponents of case study method such as Yin, Stake and Merriam have clarified and further defined the method. Yin (2009) defined a case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident" (p. 18). Stake (1995) described case study as "the study of particularity and complexity of a single case, coming to understand its activity within important circumstances" (p. xi). The use of ICT in Singapore pre-schools is a contemporary phenomenon and it is complex as there are many reasons why and how ICT is being used or not used in pre-schools.

Delimitations

While more sites may be selected and examined to see if the findings could be replicated, no two cases are the same. A population, of course, comprised many of such individuals or 'cases'. Suffice it to state that a single case is not representative of an entire population and hence is not a good basis for generalization even though Stake (2005) made an argument for "naturalistic generalization" if the aim is to "generalize to similar cases", and not to a population (p. 64).

Review of the Literature

The Single Case Study Method

The single-site case study method is used to examine how ICT and parental involvement might help narrow the literacy gap among Malay pre-schoolers at a group of 3 pre-schools. In semi-structured interviews, questions were asked on order to get a better understanding of pre-school teachers' ICT-readiness, how teachers are equipped with ICT skills and why they are at this state of ICT-readiness.

The Case Study as a Research Method

Rather than using samples and following a rigid protocol (strict set of rules) to examine limited number of variables, case study methods involved an in-depth, longitudinal (over a long period of time) examination of a single instance or event: a case. It provided a systematic way of looking at events, collecting data, analyzing information, and reporting the results. Thus, we might gain a clearer understanding of why the instance happened, and what might become important to look at more extensively in future research. Case studies lent themselves to both generating and testing hypotheses (Flyvbjerg, 2011). However, Cronbach (1975) cautioned that "once we attend to interactions, we enter a hall of mirrors that extends to infinity" (p. 119).

Case study research could mean single and multiple case studies, and could include quantitative evidence. In this case, the study was a single case method. It depended on multiple sources of evidence, and it benefitted from the prior development of theoretical propositions.

Case studies can also be based on any mix of quantitative and qualitative evidence. Single-subject research provided the statistical framework for making inferences from quantitative case-study data (Yin, 2009). While case studies highlight details in a context and inter-relationships which may not surface as easily from a quantitative method of research (e.g. survey), critics quite fairly question how the study of a small number of cases could establish generalizability of the findings.

Naturalistic Generalization

While an individual person is seldom the target or object of a social inquiry, such an individual or single object is what is considered 'a case'. Stake (1980) had earlier proposed that the case study method might be in sync with the professional reader's experience and thus be a "natural basis for generalization" (p. 64); hence the term "naturalistic generalisation" was coined.

There were also 'aha' moments that arose from the interviews, e.g. when at least 2 parents spoke of their children's new interests in reading primarily because their children's teacher had put in place a good practice of having 'lap-times' at the beginning and end of the day. These were times when the children in the pre-school would take turns to sit on the lap of the teacher to read a Big Book to the class. Children, inevitably, associated reading to something "nice, warm and full of love", according to these parents during an interview (Field Notes, 3 March 2014). How much of such insights would surface in a quantitative

survey is unclear but the case study with narrative analysis helped to uncover such best practices happening in our pre-schools.

Hence, case study could offer a perspective of a situation and provide well-written field notes describing a phenomenon in a way that is more detailed, rich in insights and later subject to deeper analysis. After all, unlike quantitative surveys, field notes could serve as a helpful record of questions, testimonies, stories, illustrations and narratives, what is felt and works-in-progress.

According to Wilson (2009), field notes might also alert us to "impending bias" because of the detailed exposure of the client to special attention, or give an early signal that a pattern is emerging (p. 209). When conflicting perceptions surfaced, a closer examination could be carried out expeditiously. Focused, short, repeat interviews might be necessary to gather additional data to "verify key observations or check a fact" (Wilson, 2009, p. 209).

Advantages and Disadvantages

The case study method might be used to build upon theory, produce new theory, dispute or challenge theory, explain a situation, provide a basis to apply solutions to situations, and describe an object or phenomenon (Yin, 1994). Yin (1994) preferred the case-study to surveys, experiments, and other research strategies especially "...when a 'how' or 'why' question is being asked about a contemporary set of events over which the investigator has little or no control" (p. 9). The essence of the case-study approach is to collect many different types of data and use them "in a triangulating fashion" (Yin, 1994, p. 13) to converge on an explanation of what happened.

Furthermore, as multiple sources of information converged into a certain pattern, it provided insights on how policy and practice might enhance teachers' ICT-readiness and what results (in terms of children's literacy development) might be achieved.

On the other hand, a typical case study research could generate voluminous data and become unwieldy. As such, systematic organization of the data is critical otherwise the entire research might crumble due to lack of focus and inability to handle such massive data. Moreover, much effort, listening skills, discipline and time are required to record, categorize, sort, store, and retrieve these sources of evidence for analysis.

Sources of Evidence

Evidence for case studies is generally derived from several sources including and not limited to documentation, archival records, interviews, direct observations, participant-observation and physical artefacts. No source of evidence is regarded above the others as many of them complement one another.

Case Study Design

As stated earlier, this study employed a mixed method case study design to answer the research questions. Qualitative and quantitative methods are not necessarily "antagonistic", but could complement each other and thereby strengthen the study. According to Fraenkel and Wallen (2006), a case study might be broadly described as "an in-depth investigation of an individual, group or institution to determine the factors, and relationship among the factors, influencing the current behaviour or status of the subject of

the study" (p. 580). In case studies, Smith (1978) suggested that the entity under investigation is a *bounded system,* that is, there are boundaries around the unit of analysis whether by time, place, context or components comprising the case.

Case studies might be single or multiple cases. Single case studies contained one case or site that is often a unique case, a typical case or one to test a theory (Yin, 2009). Within a single case study, multiple sites might be used. However, if the whole study contained several sites or cases that are *treated separately*, it is referred to a multiple case study. Studies that *combined results* are single case studies whereas studies that regarded each case separately are multiple case studies. As such, this study is a single case study.

Because this paper set out to discuss the use of the case study method to examine how ICT and parental involvement addressed the literacy gap among Malay pre-schoolers, the focus remained so although other critical factors that emerged are also discussed briefly so as to demonstrate the usefulness of the case study method.

Triangulation

Yin (2009) listed 4 types of triangulation namely data triangulation, investigator triangulation, theory triangulation and methodological triangulation. Data triangulation based on different data sources e.g. journal articles, newspaper articles, books, etc. and data collected from interviews (qualitative data) and questionnaire (quantitative data) could strengthen a study (Crowther & Lancaster, 2008).

Merrell (1999) praised the use of multiple informants to derive a more comprehensive, reliable and valid representation of the child, accommodating *different* perspectives on the child's behaviour. A few interviews revealed this: a parent related her child's lamentations about how *little* his teacher used ICT in class whereas the teacher reported otherwise. Upon verification, it turned out that both had their own perspectives. It was found that the child did not get *called upon* to use the smart-board during the whole-class teaching segment of the lesson even though he had one-to-one hands-on opportunities on the computer thereafter. So the child's notion of 'frequent usage' was equated with 'being called upon to show to the whole class'. Would this have been easily uncovered in a quantitative research method? Quite aptly, Bronfenbrenner (1989) argued that an individual's understanding is enhanced when research designs incorporated systematic comparison of observations made in different contexts by different informants who had diverse relationships with the individual.

Data Triangulation Chart

In Singapore, many years ago when it was uncovered from the interviews that parents were clocking long days in the office and leaving their children unsupervised by an adult, policy-makers moved quickly with after-school care (ASC) programs, complete with government subsidy so that the children would be supervised, provided food and even coaching in their studies while their parents were at work. ASC programs had also been introduced in the primary (elementary) schools for added convenience to the parents needing such a service. The following simple data triangulation chart captured the main afore-said points (see Figure 3).

Figure 3:

Sample data triangulation chart

Source 1	Source 2	Source 3
Survey with parent	Interview with Parent	Media articles or Government press releases on Parental Involvement
Parent indicates how much (or little) time they spend with their children who return to the house in the afternoon with no one at home.	The interview may reveal that parents are lamenting the lack of time with their children and the lack of quality after-school care (ASC) for the child.	Media may uncover the long hours (working) parents spend at the office, and the lack of ASC facilities in certain parts of the country.
Interpretation		
Trigger: Stress at work for working parents. **Consequence:** Little time for the children who are latch-key (in the afternoons). **Recommendation:** To have more centres offering ASC and ways for parents to still connect with the children in the afternoon (using technology e.g. Face-time on the iPhone or equivalents such as Skype and MSN).		

Another data triangulation chart had been produced, based on the semi-structured interviews. It addressed the heavy teachers' workload and related it to teacher shortage and retention issues (see Figure 4).

Figure 4:
Sample data triangulation chart

Source 1	Source 2	Source 3
Survey with teacher	Interview with Teacher	Media articles or Government press releases on Teachers' woes
Teacher indicates the sheer volume of admin tasks and work which takes away time from lesson planning	The interview may reveal how stressed teachers are	Media may uncover the high attrition rate of teachers in the preschool sector.
Interpretation		
Trigger: The admin work has piled up what with various Ministries requiring different reports e.g. MOE on attendance, Ministry of Health on prevention of HFMD, MCYS on fee subsidies, etc. **Consequence:** Teachers are too bogged down with non-teaching tasks, and leave the service. **Recommendation:** To provide teacher-aides, admin assistants and to use technology to record children's attendance and temperatures.		

When it was uncovered during the interviews that teachers "feel so jaded", a closer examination of the issue was taken. What were they tired of or unhappy about? A problem-solving approach led to the hiring of teacher-aides (who are readily available) and the use of ICT to complete administrative work or non-teaching tasks such as marking attendance and recording of children's temperatures in case they are running a fever.

Despite such initiatives, the child-care and preschool industry is still suffering from a high staff attrition rate. Press releases from government agencies did not discuss teacher shortage at length but focused instead on scholarships and bursaries to attract talent into the profession (Heng, 2012). Attempts to attract more into the profession via scholarships had yielded dismal results, based on repeated newspaper advertisements (from the same groups of preschools seeking to fill immediate vacancies) which leave tell-tale signs about the continued dire shortage of preschool teachers.

The Interview

Denscombe (1983) considered the interview as an expressive medium that should highlight the performance factor, performed with dramatic intonation, pauses, gestures, facial expressions and body positions, complete with interesting figures of speech. Some narratives show a variety of stylistic devices such as figures of speech, rhyme, varied tempos, pitch and intonation – data which could not be captured in documentary analyses or surveys. Via "a conversation with the data" (Merriam, 1988, p. 131), patterns and themes might be identified. Moreover, such face-to-face interviews were used to establish rapport, and soothe any anxieties respondents might have about confidentiality.

There is a growing interest and effort in equipping Singapore children for the digital age especially when parents favoured ICT use to "prepare their young children for the digital

age" (BECTA, 2008, p. 46). This study documented narratives told by 31 teachers and 45 parents who provided insights and perspectives which could aid our understanding of how to mind the literacy gap

Narratives

The literature on narratives is not new. As long ago as the 1960s, Labov, Cohen, Robins, and Lewis (1968) listed 6 parts to a fully-formed oral narrative of personal experience: the abstract initiated the narrative by summarising the point; the orientation provided details of time, persons, place and situation; the complication marked the turning point or problem; the evaluation highlighted the point of the narrative, the reason for telling the story; the result described the resolution to the problem; and the coda marked the close. This same 6-part framework is still in use today; recently by Seck (2009) in his work on oral narratives of an aboriginal group.

Narratives are viewed and talked about differently by different people. Barnlund (1975) observed that people "talk differently, about different topics, in different ways, to different people, with different consequences" (p. 435). Researchers in the 1980s such as Polanyi (1985) viewed 'narrative' as "a kind of discourse in which a precise time line is established through the telling, comprising discrete moments at which events occur". Connelly and Claudinin (1988) defined narratives as "the making of meaning through personal experience by way of a process of reflection in which storytelling is a key element and in which metaphors and folk knowledge take their place" (p. 16). Teachers' reflections are studied so as to "get inside teachers' heads to describe their knowledge, attitudes, beliefs, and values" (Connelly & Claudinin, 1988, p. 14).

Chafe (1990) viewed narratives "as overt manifestations of the mind in action: as windows to both the content of the mind and its ongoing operations" (p. 79). Even a pause or an interruption, intended or otherwise, is important. Chase (2010) described this kind of unexpected narrative interruption as an opportunity "to understand how people create meanings out of events in their lives" (p. 218). Bruner (1996) proposed "that skill in narrative construction and narrative understanding is crucial to constructing our lives and a 'place' for ourselves in the possible world we will encounter" (p. 40) and suggested we "convert our efforts at scientific understanding into the form of narratives" (p. 125)

Indeed, it is important to listen to teachers' opinions and frustrations or listen to their "voice". As more is expected of teachers, teachers needed to be empowered and be given more voice. As Cortazzi (1993) suggested, "many teachers' narratives have strong performance qualities, most of which are lost on paper: voice quality, gesture pitch and pace disappear in transcription" (p. 110). Thus, narratives enabled a phenomenon to be described in a way that is deeper in analysis, more detailed, and more insightful.

In a magazine article entitled 'Winning Women', Chong (2012a) listened to these award-winning preschool professionals and found out what motivated them are not just recognition but also "the full support of teachers, principals and the Management Committee", "work-life balance" and "proximity between home and the workplace" (pp. 36-37).

Many researchers, over the years, also argued that understanding how these voices conducted themselves with respect to events, processes, and other voices could provide insights into how they viewed and felt about schooling (Xu, Connelly, He & Phillion, 2007). Interestingly, these (pre-schoolers') stories and views were not permanent but might evolve

over time and across contexts and interpretations (Cook-Sather, 2007). It is thus important to listen for and attend to these shifting or conflicting accounts.

Documentary Analysis

A documentary analysis on various documents posted online by government and relevant agencies facilitated the examination of how much had been done to promote teacher ICT-readiness and parental involvement. Most of the documents were released by MOE, MCYS and another government agency - the newly-formed Early Childhood Development Agency or ECDA.

If the study by the Economist Intelligence Unit (EIU) on international ECE is to be taken seriously then Singapore "seems to be falling short when it comes to teaching its toddlers" especially when it had been ranked "just 29th out of some 45 countries across the globe" (EIU, 2012, n.p.). Singapore actually scored as poor as "30th out of 45" for quality, but fared slightly better in affordability (21ˢᵗ out of 45) and availability (25ᵗʰ out of 45). Quality is based on student-teacher ratio, average preschool teacher wages, preschool teacher training and linkages between preschool and primary school.

ICT

According to the IBM Annual Report 2002, (IBM, 2014), ICT is either the main cause for the gap between the world's information 'haves' and 'have-nots', or it is actually our best chance for bridging the gap. Citing the growing affordability of internet access and the pervasiveness of ICT (with 5 million new cell-phone users per month for China alone), Gonzales (2002) cautioned that "we must not lose sight of an equally serious source of disparity" and added that "no amount of bandwidth and processing power will close the gap between the advantaged and disadvantaged until every child has access to a high-quality education" (p. 7).

Siraj-Blatchford and Siraj-Blatchford (2006) stressed that when integrated to support early learning across the curriculum, ICT could "support the development of positive dispositions towards learning" (p. 5). Moreover, since "ICT has shifted some amount of teaching and learning from 'chalk and talk' to 'click and drop'", ICT became more prevalent in our day-to-day routines and the Singapore pre-school classroom (Chong, 2012a, p. 21). According to Chong (2012a), "what's more important is to harness such technology to raise the quality of teaching and learning ….and to focus on the art of leading and nurturing the children in the development of higher-order thinking (HOT) skills, such as analysis and discussion" (p. 21).

Parental Involvement

Chong (2012c) related the motivations of a parent-volunteer in one of the pre-schools: "I feel it is the parents' responsibility to give back to the preschool. It also helps parents build rapport with the teachers and other parents as a community" (p. 22). Another father of a pre-schooler, a professional photographer, explained: "The teachers nurtured my children, so this is my modest way of giving back – by volunteering and capturing their happy moments on video and in photos" (Chong, 2012c, p. 21).

Findings

Repeated Themes Dorming a Pattern

Socio-economic status (SES) emerged as an often-repeated theme. Parents explained they wished they could spend more time with their children but had to be away at work most of the time just "to pay the bills" (Field-notes, 3 March 2014). It was also found that the care-givers did not read to the children because they did not know how to or were themselves too busy with household chores. Another interesting finding is how a Malay child repeatedly spelled the word 'pencil' as 'pensil' (the latter is the way this piece of stationery is spelled in the Malay language). This is informative and provided a rich enough empirical data base upon which to check interpretations (Xu, Connelly, He & Phillion, 2007).

Use of ICT

While Anderson and Baskin (2002) highlighted that ICT or the on-line environment is "not a panacea for better teaching and learning outcomes", they expressed hope that ICT might serve as "a catalyst to other elements of school reform" (p. 126).

All 31 teachers registered their appreciation for teaching resources such as computers, smart-boards and a suite of learning videos and CD-ROMs. As many as 7 teachers thought these could be used more often, as they "have very little time for ICT-based lessons as we have other things to finish and got to multi-task" (Field notes, 20 December 2013). Teachers are not keeping up with ICT and not harnessing ICT to make their lessons engaging. For instance, mindmaps, simple semantic webs or ICT-based tools like Popplets might be used to help the children build more words or increase their vocabulary but they were not used at all (Field notes, 3 March 2014).

According to the iDA (2014), "as much as 85% of Singapore household have computers at home" which tells us that the remaining 15% do not. See Figure 5 below.

Figure 5
Infocomm Statistics – Infocomm Usage (iDA, 2013).
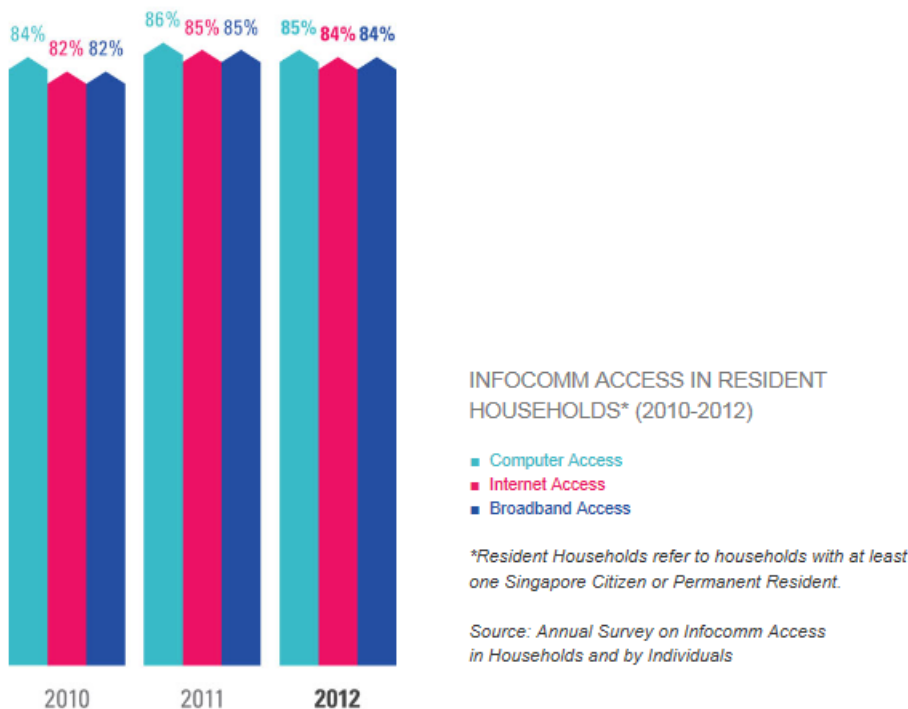
As many as 36 out of 45 parents or 80% said they did not have computers at home. This implied that these parents were among the 15% of the country's population who did not have computers at home.

Parental Involvement

As many as 10 out of 45 parents who were interviewed also articulated how difficult it had been as single parents to support their children especially when their spouse is seldom around to share the responsibility and to serve as a male role-model. They related how they had to juggle full-time work as well as duties as a single parent. One parent spoke about the ills of drug abuse and how it had affected her family so badly that she had to juggle a few jobs to support the family.

SES

As many as 31 out of 45 parents or slightly more than two-thirds shared how difficult it had been for them to deal with 'bread-and-butter' issues every day. This brought to mind Darling-Hammond's (2010) point that "…socio-economic background most affects student outcomes". There seemed to be a pattern woven around threads of themes such as SES, teachers' growing workload, use of ICT, religious upbringing, parental involvement, and a shared responsibility among parents, school, teachers and society. Indeed, in a study on

aborigines in Queensland, Australia (which seemed to have similar success factors as this case study), McGinty (2002) had encouraged researchers to look at (factors) "such as community development, at partnerships, and at the role of government and the role of the non-government sector in the development of learning communities"…and to seriously consider "a more collaborative approach to its policy production and implementation" instead of "a 'top-down' approach" (p. 65).

Teachers' Growing Workload and Staffing Issues

As many as 20 out of 31 teachers lamented the heavy workload but almost immediately added that "it is the love for the children" that made them happy and stay in the job. They also liked the "helpfulness of colleagues" which made the heavy workload a little easier to bear and made them stay in their job, heavy workload notwithstanding. One teacher confided how tired she was at the end of each day: "When I work, I think of deprived sleep and when I sleep, I think of work!" (Field Notes, 13 December 2013)

Religious Upbringing

While parents expressed the importance of school work and the child's ability to read, they articulated that these must not be at the expense of religious classes and teachings. After all, as many as 32 out of 45 parents or slightly more than 70% insisted that attendance at religious classes is a must. One parent argued that "it takes only one afternoon a week" and another parent insisted religion "is part of our lives" (Field Notes, 28 February 2014). Another parent stressed the importance of adhering to their religion: "Religion must not be forgotten no matter what; religion will keep my children on the straight path so they won't be crooked (colloquail term for 'becoming crooks')" (Field Notes, 3 March 2014).
Twenty-nine out of 45 parents or almost two-thirds wanted "a more balanced education" and "a curriculum that looks at more than just studies and exams" (Field notes, 3 March 2014). This is aligned with the goals and aims of the Refreshed Kindergarten Curriculum Framework which also emphasised the "Holistic development of children (and) recognises that every aspect of a child's development is important and inter-connected" (ECDA, 2013b).

A Shared Responsibility Among Parents, School, Teachers and Society

In calling for continual improvement to Singapore's education system, Singapore's Prime Minister (PM) Lee Hsien Loong appealed, "…..we need a much broader involvement – parents, alumni, the community, all coming together to support our schools" (Lee, 2011, n.p.).
In his reply to questions at the MOE Financial Year 2012 Committee of Supply Debate, SPS Mr Hawazi Daipi highlighted the importance of stakeholders working together to achieve common desired outcomes (Daipi, 2012, n. p.).   Indeed, the preschools and the teachers do not have to go it alone. After all, there are many companies such as Ednovation who specialises in providing multi-media resources to enhance teaching and learning in the pre-schools (Ednovation, 2014). Ednovation had partnered preschools by supplying "a wealth of educational multimedia resources" (Chong, 2011, p. 36).

How Themes are Supported by the National Committee

Minister Yaacob Ibrahim had spoken of the *Suara Musyawarah* Committee, an independent committee, set up to engage members of the Malay/Muslim community and produce a Report. A documentary analysis of that Report, published on 7 July 2013, highlighted the Malay/Muslim community's main areas of interest and concerns, as well as future hopes and aspirations. Unfortunately, a few stark realities remained e.g. this ethnic group's median income lagged behind its counterparts as well as the national median (See Figure 6).

Figure 6:
Median Income across Ethnic Groups

The median Malay household income increased by 1.9% (real average annual growth), from $2,709 to $3,844 between 2000 and 2010. While household income has increased over the years, Malays experienced a slower growth in their average and median monthly household incomes considering that the national median was $5,000 in 2010.
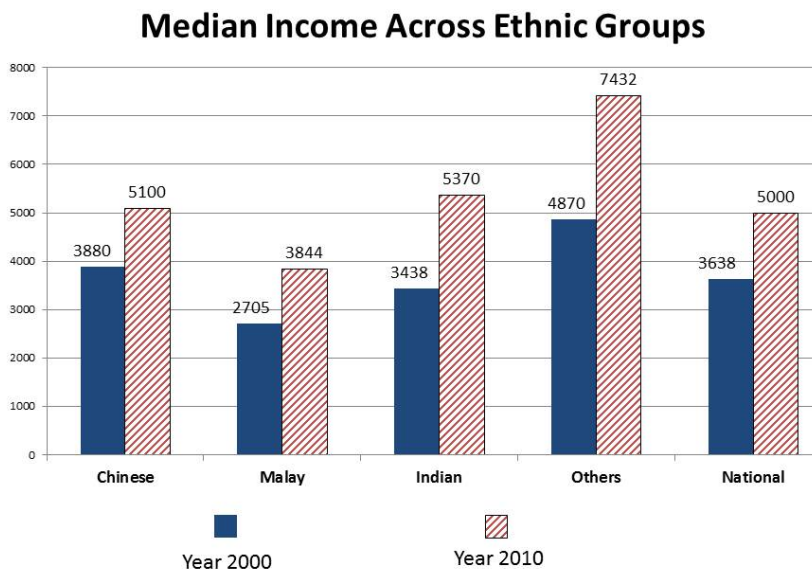
From the interviews, we are able to listen to other critical factors and then verify the claims e.g. that children are disadvantaged because they come from challenging home circumstances such as absent fathers suffering from drug abuse. When the fathers are away from home for extended periods of time, the mother of the pre-schooler had to go to work to support the family, causing her to have little time for her pre-school children. Such low level of parental involvement meant less reading time, less interaction, and less of what is needed to help the children read at their age or grade level. The statistics in the *Suara Musyawarah* Committee Report (2013) showed the Malays to be over-represented among the drug abusers (Figure 7).

The ethnic composition of the resident population remained stable over the last few years. In 2013, the Chinese formed the majority at 74% of the resident population while the Malays and the Indians formed 13% and 9.1% respectively. The remaining 4% was formed by the other ethnic groups.

Figure 7:
Ethnic Composition of Resident Population

Year	Number ('000)					Share (%)				
	Total	Chinese	Malays	Indians	Others	Total	Chinese	Malays	Indians	Others
1990	2,735.9	2,127.9	384.3	194.0	29.6	100.0	77.8	14.0	7.1	1.1
2000	3,273.4	2,513.8	455.2	257.9	46.4	100.0	76.8	13.9	7.9	1.4
2010	3,771.7	2,794.0	503.9	348.1	125.8	100.0	74.1	13.4	9.2	3.3
2012	3,818.2	2,832.0	509.5	351.0	125.7	100.0	74.2	13.3	9.2	3.3
2013	3,844.8	2,853.8	512.8	351.7	126.5	100.0	74.2	13.3	9.1	3.3

Note: Data from 2003 onwards exclude residents who have been away from Singapore for a continuous period of 12 months or longer as at the reference period.

In his address to Singapore's Muslim professionals at their 3rd National Convention, PM Lee (2012b) highlighted the importance of the community "to continue to focus on improving the socio-economic performance of the community. The key to this is the fundamentals - education, strong families, financial skills. You get those right, everything else will follow - in the job market, in terms of your socio-economic attainment, in terms your housing, in terms of your leadership" (para 12).

Discussion

### Critical Success Factors and 'How' Questions

While a quantitative survey could investigate the possible effects of certain factors on the literacy gap of Malay pre-schoolers and therefore show trends, the answers to the 'how' questions are less obvious. For example, how might policy address the impact of critical success factors such as SES, teachers' growing workload, use of ICT, religious upbringing, parental involvement and a shared responsibility among stakeholders? How might we address teachers' growing workload such that teachers did not feel jaded and would not leave the profession? How could teacher retention help enhance the learning experience of pre-schoolers? Or how might we help single mothers who worked long hours, become more involved in their children's reading?

McGinty (2002) reminded us that "while the demand for change emerges from civil society, it is also apparent that there are other drivers; information technology not being the least of these" (p. 70).

Use of ICT

Since "ICT has shifted some amount of teaching and learning from 'chalk and talk' to 'click and drop'", we are not able to avoid ICT in our day-to-day routines and the learning environment (Chong, 2012, p. 21). Instead of avoiding ICT, ICT could be harnessed to "support the development of positive dispositions towards learning" (Siraj-Blatchford & Siraj-Blatchford, 2006, p. 5). In a study with older students, Chung, Anderson, Leong and Chow (2014) encouraged the use of "ICT-mediated scaffold via collaborative mind maps" (p. 46). Similarly, pre-schoolers might be coached to form their semantic webs and improve upon their vocabulary (Figure 8).

Figure 8
A Semantic Web to help pre-schoolers build more words
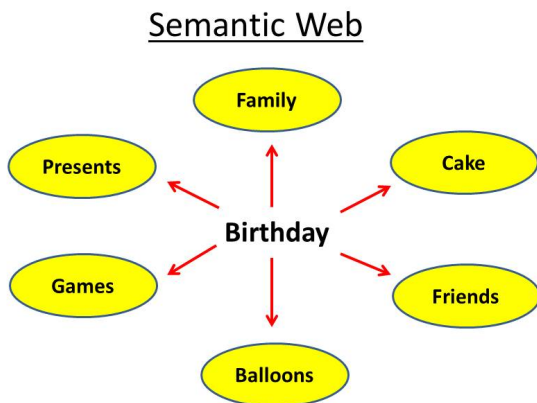
Moreover, since "ICT has shifted some amount of teaching and learning from 'chalk and talk' to 'click and drop'", we are not able to avoid ICT in our day-to-day routines and the learning environment (Chong, 2012, p. 21).

Parental Involvement

The interviews revealed that while there are parents who welcomed the homework given to their children by the preschool teacher (especially those on spelling), there are other parents who frowned upon such homework for their young children. The stress that parents talked about had been noticed by Singapore's PM. While citing the many international awards earned by Singaporeans and how highly-sought after Singapore's graduates are, PM Lee admitted "our system is not perfect – parents and students are still stressed about tests and key examinations" (Lee, 2012a, n.p.).

From the narrative analysis, 'voices' calling for more play and less homework were heard. In fact, the "gestures, pitch and tone of voice" provided more insights (Cortazzi, 1993, p. 110) as they showed parents' exasperation and displeasure with the way their children are allegedly being hot-housed, meaning they are being "pushed into learning more quickly and earlier than is appropriate for their cognitive age" (Bainbridge, 2012, n.p.).

In a magazine article on Singapore pre-school children, Chong (2012c) suggested that "dads and mums who work closely with the school can form a vibrant community that is invaluable to the development of the child" (p. 20). Indeed, parents felt welcome and became more involved when teachers were more inviting of parents' involvement (Anderson & Minke, 2007).

Impact of Inequality on Literacy

Darling-Hammond (2010) also highlighted that "inequality has an enormous influence on US performance. White and Asian students score just above the average for the European OECD nations in each subject area, but African-American and Hispanic students score so much lower that the national average plummets to the bottom tier" (n.p.).

The findings in this case study on Malay pre-schoolers seemed to be similar; after all, they were not able to recognize simple English words (or) understand very simple oral instructions in English" (Singapore Parliament Report, 2009, para 42, n.p.).

Teachers' Growing Workload

Acting Minister Chan Chun Sing of MSF outlined the Singapore Government's plan to enhance scholarships and training awards for the Early Childhood sector today. According to ECDA (2013a), "the changes will provide more support for new and existing early childhood educators and help operators better attract, develop and retain their staff" (n.p.). A total of US$25 million (S$30 million) shall be spent over the next 3 years on these efforts (ECDA, 2013a, n.p.).

Religious Upbringing

How much should be discussed around a theme such as 'religion'? This paper suggested at least a brief discussion primarily because parents who were interviewed had cited religion as a factor that is as important as academic study and enrichment programs. Should religion be de-emphasised in the school curriculum if it is perceived to divide students instead of unifying them? Is 'religion' such a bad term? Should its use be discontinued? Why is the term 'religion' allegedly so divisive? Is it because people of religion tend to accentuate differences instead of similarities? If so, this would support the notion that religion is indeed divisive. Smith (2012), instead, recommended the use of more unifying terms such as 'tradition', 'community of faith' or 'the believing community' (n.p.).

**A Shared Responsibility Among Parents, School, Teachers and Society**

Daipi (2012) emphasised the role parents play "in providing a supportive environment for our children to learn"; he added that "communities can support and enrich learning in many ways" and that "partnerships augment the school efforts to meet the developmental needs of every student placed in their care" (n. p.). With the participation of leading education companies such as Ednovation, even parents without the requisite training might be able to work alongside their children on phonics and reading e-activities, and enjoy them together with their children (Ednovation, 2014). In an Australian study, Anderson (2013) suggested "a 'difference theory' (which is an attempt) to move explanations for some children's low levels of readiness for school, and their consequent lack of success at school, away from the child and the child's family to an increasing emphasis on schools and the wider community to prepare children for school" (p. 265).

The Curriculum

ECDA (2013b) articulated the importance of reading with understanding and for enjoyment which meant that the children should be able to "have print and book awareness, recognise upper and lower case letters of the alphabet, recognise beginning and ending sounds in words, recognise familiar/sight/high frequency words, and show understanding of the story/rhyme/poem by responding to questions and talking about the characters and events" (n.p.).   Yunkaporta and Lowe (2012) reported "while many teachers will continue as they have in the past, to provide students with these learning experiences, this should surely be supported by an explicit, high-quality curriculum" (p. 12).

According to the ECDA (2013b), the aim of the Refreshed Curriculum Framework is to provide "guidelines for holistic pre-school education … based on internationally-recognised ECE principles (and) strongly recommended for use by pre-school centres" (n.p.). Based on iTeach principles illustrated in Figure 9 below, it is interesting that teachers are listed as facilitators of learning and not dispensers of knowledge (ECDA, 2013b). In this way, they are better positioned to "focus on the art of leading and nurturing the children in the development of higher-order thinking (HOT) skills, such as analysis and discussion" (Chong, 2012a, p. 21).

Figure 9:
iTeach Principles (MOE, 2012)
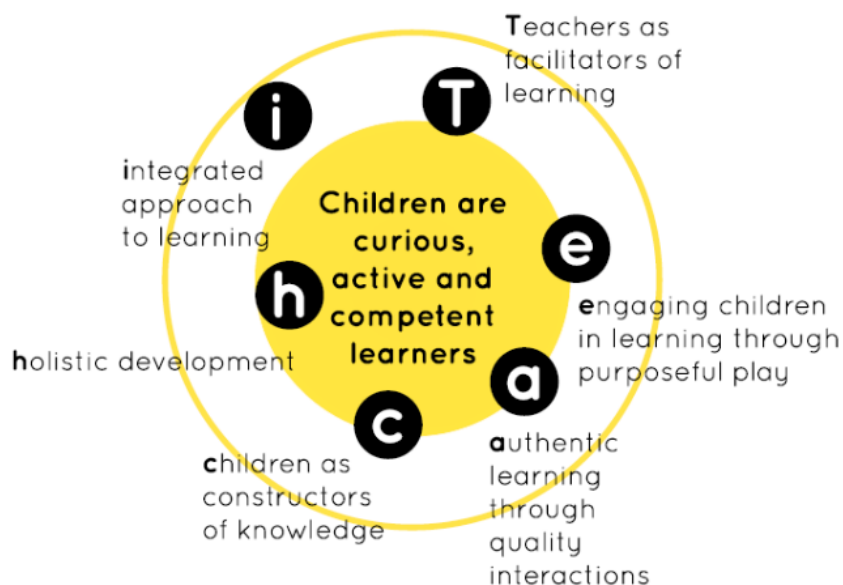
Another possible factor worth discussing is the influence of the media in highlighting how Malays perhaps '*tak boleh*' (Malay term for 'cannot make it'). This is implied in a news report entitled 'Malays *boleh*' (Sunday Times, 6 March 2011, HOME p. 10). It is thus necessary for teachers to "set aside deficit logic" (Yunkaporta & McGinty, 2009, p. 55). Indeed, in studies involving aborigines (and Malays are aborigines in this South-east Asian region), more could be done to "unpack and reject this deficit logic" and to help us to be careful in how "low expectations were communicated informally through the curriculum, the school design and the organisational structure" (Yunkaporta & McGinty, 2009, p. 70).

Conclusion

There must also be a concerted effort to synergise all pertinent factors, including and not limited to SES, teachers' growing workload, use of ICT, religious upbringing, parental involvement and a shared responsibility among stakeholders for desired outcomes.

Case studies have highlighted details in a context and inter-relationships which might not surface as easily from a quantitative method of research (e.g. survey). The case study method is thus useful as it enabled researchers to examine the 'why' and 'how' questions, and "to retain the holistic and meaningful characteristics of real-life events" (Yin, 1989, p. 14). Thus, more could be uncovered besides the surface relationships between the two independent variables identified (i.e. ICT and parental involvement).

This study's preliminary findings supported the need to be involved in the children's literacy development as early as possible so as to achieve more powerful effects, and to leverage on available tools including and not limited to ICT. However, Chong (2009) cautioned that ICT could be "a good servant but a bad master". Hence, ICT is not a panacea of sorts but it could nevertheless be used to enhance teaching and learning.

Rose, Gallup and Elam (1997) pointed out the findings of a 1997 Gallup poll in which support from parents was cited as the most important way to improve the schools. Epstein (2001) revealed several ways for parents to be involved meaningfully: parenting, communicating, volunteering, learning at home, decision making, and collaborating with the community. Not to be involved might cost the parents more, in the long run as "decades of research show that when parents are involved, students have higher grades, test scores and graduation rates ….. lower rates of suspension, decreased use of drugs and alcohol, fewer instances of violent behavior" (Michigan Department of Education, 2001, n.p.). Nevertheless, parental involvement and ICT appear to be critical success factors and could become a cooperative focal point for children, parents and educators.

Usefulness of a Narrative Analysis

It was useful that this case study included a narrative analysis which helped uncover issues deemed important to the interviewees. Moreover, the semi-structured interview allowed the researcher to get off the beaten track as it were, to explore an emerging topic in the interview conversations. One such topic was 'play' of which Chong (2011) noted "is an under-optimised strategy for engaged learning" (p. 37). Another topic was 'religious upbringing' which had become more pronounced and according to Musa (2012) posed a "possible threat to good inter-religious relations" (n.p.). This accentuated the role of the IRCCs which are "local-level inter-faith platforms in every constituency, formed to promote racial and religious harmony" (IRCC, 2014, n.p.). After all, Singapore is geographical located between countries with 'Very High' and 'High' SHI rating, namely Indonesia and Malaysia, respectively (Pew Research, 2014). In short, the issue of religion is under-estimated or mismanaged, at our own peril.

Suggestions for Further Research

Through the case study method, this paper had briefly outlined how more than two factors could address the literacy gap of Malay pre-schoolers. To consider all possible factors could reach encyclopaedic proportions and might go beyond the requirements of this paper. It is nevertheless suggested that more resources be set aside for such a worthwhile study. After all, a disenfranchised section of the population, especially if stratified along racial and religious lines at such an early age might pose social and political problems downstream. This case study could trigger further research to illuminate the issues and nip the problem at the bud, ensuring that "disadvantages must *not* be passed on to our children" (Shanmugaratnam, 2012, n.p.).

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Policy-Driven Instruction at For-Profit Institutions

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Abstract

Lax policies have allowed more students to attend colleges and universities than ever before. This has brought about a rise in for-profit institutions that allow for many students who would otherwise not be able to earn a degree. Recently, for-profits have come under scrutiny for their predatory lending practices that saddle students with enormous amounts of debt. However, there has been little discussion of the teaching methods that instructors are forced to employ at these colleges. This article aims to explore the impact these schools have on their students from an instructor's perspective.

Keywords: For-Profit, Online Education, Policies

Introduction

Early spring, 2011. The email arrived in my inbox late Tuesday evening. It was from a student in Alabama, writing that she had finally finished her paper. Our last correspondence was an email the week prior saying she had a cold and her paper would be late. Now she was finished with it and felt the need to email me. Typical of many young college students, her email was plagued with misspellings and difficult to decipher. At the end of her email she begged me not to penalize her too many points for her tardiness.

I clicked reply. My email was simple. I told her I would not take points off.

I wanted to.

According to the college, however, I couldn't. Earlier in the year, the school had adopted a policy stating late work up until the Wednesday after the assignment was due would be accepted without penalty. It was just one among many of the new policies the college had put into place this year to increase retention rates and raise grades among its growing ranks.

Later that evening, I stopped answering emails and started grading papers. At the time I was working for three colleges: a major Christian university, a community college, and this one, a degree mill. The headquarters oversees at least ten different colleges across the United States. In one state it is one name, in another it is different. Hence, a student enrolled at College A may find himself or herself in the same classroom with a student from College B.

The first essay was by a barely-passing student who had cobbled together information copied from the Internet. It had been 90% plagiarized. After jumping through hoops to locate the student academic incident form, I was reminded in bold, red letters on the form that instructors can only take 15% off a student's grade per paper for plagiarism. 15%. At any other higher education institution found across the United States – whether it be Harvard or a local community college – the assignment would have received a zero. Forms would be submitted. The academic incident report would be snuggled away in the student's file folder. Students who repeatedly plagiarized would be expelled from the institution.

At this college, however, one has to wonder how many reports were filed.

At any given time, over 30% of the students in these classrooms submit plagiarized essays.

An instructor at one of these colleges has to be extremely careful. Policies are in place to protect the students and limit the instructor's power. The majority of these types of colleges force instructors to pass a certain number of students. This college was no different.

I was required to pass 85% of my students.

If I started off the class with 20 students, and four completely disappeared off the map without withdrawing, I had to pass the remaining students or I was not eligible for rehire next term.

In recent weeks there has been much talk about how for-profit colleges take advantage of students financially. The spotlight has been placed on ITT Technical Institute, but an equal scrutiny has been placed on many of these for-profit institutions. A grid posted on the Chronicle of Higher Education shows the number of colleges that are currently under investigated either by the federal government or by individual states for varying practices, including providing false information about future job prospects to its students.

But not all for-profit schools employ shady practices, and while the focus has been on the financial aspect and lying to students about employment possibilities, there has not been much discussion about other ways in which these colleges are failing students. These colleges are churning out generations of underprepared students who think they have a future in various fields only to find their degrees worthless.

I will not state the name of the parent company, nor the college I worked for, but chances are that you have heard of it. States change, the names of the individual colleges change, but in the end, degree mills are all the same. If one took a yardstick to measure the quality of student work, Harvard and other Ivy Leagues would rank high, along with state universities and schools ranging somewhere between the top and middle. Even community colleges would rank high. Degree mills, on the other hand, would even barely register on the bottom of the stick.

After a break, I returned to grading. Next to me was a printout of the grading rubric. Assignments are submitted weekly. They can run the gamut from a one-sentence thesis statement to selecting three or four sources from the online library to employ for a research paper. This rubric is extremely important, and it must be followed at all times.

Did the student put his or her name on the paper?

Check. That's five points, according to the rubric.

Date? Check. Five points.

Are there spelling errors in the two-page document? A four year old might have better spelling. That means the student doesn't earn five points for that.

Did the student format the document correctly? He or she did, so that's another five points.

Our of twenty points, the student earned fifteen for a one-sentence assignment. 75%.

On a similar assignment at a university or community college, the student submitting this would award a zero. At the very least, the instructor would send the assignment back for a rewrite.

When I was first hired by this college, I was entered into an online training class with over a hundred other instructors from around the nation. At the time I had little understanding of just what a degree mill was, but by the time I left, a year later, I realized I wasn't really an instructor at this college. My work gave the impression I was an instructor, but it was more the notion of an instructor. It was kind of like the idea of an instructor. I replied to comments and posts in the discussion board. I graded essays. Yet I could never shake off the feeling that I was little more than front-counter help at a fast-food restaurant.

Even students that performed well would not have done satisfactorily at a community college, and they would never have survived at a place like UMass or UCLA.

One has to wonder how the other instructors involved in the training felt after they finished teaching their first few classes at the college. I don't know. I know I felt angry. I felt angry because many students who passed my class only did so thanks to policy. There were semesters where no student earned an A. In one class, not one student earned above a C; which warranted a complaint from my supervisor that I was too strict.

I felt guilty, too. I felt guilty because I wondered what kind of future these students had after graduating. Some couldn't spell the name of the college they were attending, much less compose a paper that contained a shred of original thought.

I was angry about compensation, too. On top of the insane number of training videos I had to watch and become 'certified' in, we were required to pay out of pocket for professional development. I attended a teaching conference in Atlanta, GA on the subject of college composition, and this college didn't accept it. That was the last straw. I had been accepted to begin my doctoral work, and I decided to let this college know I was leaving. Though angry, I left with dignity, but my experience at this college left its mark.

These colleges exist. The work they require students to do is mediocre, and even the label 'instructor' is misleading. The classes are programmed. They require someone's presence, but not much else. Announcements are prepackaged. Instructors just need to include their names. Policies crimp instructor freedom – from the number of words required for a reply post to a student in the discussion board to how instructors are required to reply to every email a student sends, including ones that say 'thanx.'

While we as a nation need more educated individuals to keep us competitive on the world stage, these colleges have taken the fundamental concept of earning a degree and turned it into a cafeteria. Students are graded more on effort than they are on actual performance. Most students leave the classroom without even a basic understanding of the concepts being presented. How can these students compete with students who have submitted legitimate work at a legitimate college? They can't. One of the fields these colleges focus on is nursing. Does that scare you yet? It should.

Issues and Perspectives in Combining Career Skills and Life Skills in Education

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Abstract

Education is the passport to opportunity and prosperity for an individual and for stability and development of a nation. Educated individuals can become entrepreneurs, academics, professionals, or business leaders and contribute in the process of development of a nation. Education in 21st century is a blend of career skills and life skills which involves enabling today's students to be academically competitive in global situations; good citizens within their community, country, and world; and effective within their workplace. It means that education must engage new technologies, equip students with rigorous academic coursework, and foster innovation and creativity.

Career skills may include creativity, critical thinking, collaboration, communication and information and ICT literacy. Life skills may include EQ, Attitude towards life, interpersonal skills, self-awareness building skills, decision-making, prioritization, empathy and coping with stress. Present scenario in the Indian context: While addressing issues and perspectives in combining Career skills and life skills in Education the most important fact to be comprehended is (a) these issues have been arising out of the changing social ethos from 1990 i.e. post LPG era and policies. (b) These issues are pertaining to striking a balance between social changes and the mandate of development before one of the largest democracy of the world.

Considering these two important points, Education – that too of combining life skills and career skills- is a major factor, which would go a long way to achieve the objectives of Higher Education in India. This paper makes a sincere attempt to probe into these areas and proposes to examine the possibility of developing a model, which would be suitable to the Indian learners and teachers initially and become adaptable to other developing societies in due course.

Historical Review

Since Independence Higher education in India has evolved with the objective of empowering people with the requisite skills for leading a quality life that would help in the individual as well as national well being.The Government of India has been taking significant steps towards   development of Higher education to suit the specific requirements of the country. Various Commissions were set up for the purpose, namely:

1. University Education Commission in 1948 under the Chairmanship of Late Dr. Sarvapalli Radhakrishnan, the former President of India.
2. The Kothari Commission in 1964 was appointed to advise the Government on national pattern of education and on policies for development of education.
3. The National Policy on Education was formed in 1986 and adopted in 1992 with some modifications. It provided a comprehensive framework to guide the development of education in its entirety

The essence and role of education according to all the Commissions on Education is that:

1. In our national perception Education is essentially for all. This is fundamental to our all-round development- material and spiritual
2. Education has an acculturating role. It refines sensitivities and perceptions that contribute to national cohesion, a scientific temper and independence of mind and spirit thus furthering the goals of secularism, socialism and democracy enshrined in our Constitution.
3. Education develops manpower for different levels of the economy. It is also the substrate on which, research and development flourish, being the ultimate guarantee of national self reliance
4. In sum, education is a unique investment in the present and the future. This cardinal principle is the key to the National Policy on Education.

A close look at the recommendations made by all the Commissions for development of higher education policy in the country shows that all of them have emphasized on one important aspect and that is the all round, holistic development of individuals –. We may therefore very well infer that the need for a blend of career skills and life skills in education was recognized at a very early stage of development of our nation.

Implementation of the national policies on education: Though the recommendations made by various commissions were very impressive they were not implemented effectively. A detailed plan/strategy comprising of assignment of specific responsibilities, provision of financial and organizational support would have well served the purpose. But the lack of it led to problems of quality, quantity and access to higher education in India (www.ncert.nic.**in**/oth_anoun/npe86.pdf)
With the LPG (Liberalization, Privatization and Globalization) policy of the 1990s, a new phase dawned in the Higher Education sector. There were reforms in all sectors and if there was anything constant, it was *Change* and till date this change has become the guiding principle. So,

with LPG, we landed ourselves on a bigger canvas with complex opportunities and challenges. We were quick to realize that any upward mobility thereafter could be achieved only by coping with the change or by adapting to the change- be it the upward mobility in economic status or social status. And the key to adapting to this change was Education. So, Higher Education attained a key position in globalised economy and there were many expectations from the sector. However, there were many apprehensions about the benefits of LPG to the developing economy like India because its impact on the Individuals, Institutions, Systems and societies was not only not clear but also not comprehendible at that moment.

While some argued that globalization would promise dramatic and rewarding changes to the higher education system, some argued that it may threaten the very stability needed to build well performing higher education system. Developing countries like India would have to adjust willingly or unwillingly to the quickening pulse of international change and accordingly reform on several fronts simultaneously, which may not be possible under the given resource status of higher education(Dr. Mithilesh Kumar Singh, Challenges of Globalization on Indian Higher Education). In other words, the concerns expressed were with regard to:

i) Benefits of globalization to different sections of the society –which were presumed to be far uneven.
(ii) Its role in creating greater social stratification and inequality – widening the gaps between the "haves" and "have nots"
(iii) Its role in destabilizing and distorting the indigenous culture, tradition and values
(iv) Its role in alienating the youth from its own place by uprooting and at the same time not sure of providing a landing space and
(v) More than these, its role in facilitating the rich countries to grow richer by drawing the resources from the poor.

These concerns were particularly important for a country like India which is a Welfare State. In a Welfare State, it is the responsibility of the nation to create social and economic equality.It is the responsibility of the government to take care of the welfare of the single most citizen in the lowest strata.

The 1990s thus posed two-fold responsibility on Higher Education System- 1) To consolidate the system's development at national level and make it global by availing the opportunities thrown by opening up of the economy and 2) taking on the challenge of ensuring that the benefits derived there from reach every single person of the lowest strata in the society.

It was quite a balancing act for the country in general and for the HE system in particular amidst these two challenges of rising up to grab the opportunities yet going deep to reach the grassroot level. Added to it was the rapidity in which the entire change had to be handled.

Need for Career skills: Globalisation brought with it a transformation in the skills required for various jobs. The traditional skill sets imparted by the Higher Education system were insufficient to fulfill the demands of modern jobs. There was a strong need for a different set of skills that would make an individual more likely to gain employment and be successful in the chosen occupation A strong need was felt to revamp our education system. Employable skills , career skills became the catch words of this era.

 Career skills include creativity, critical thinking, collaboration, communication and information and ICT literacy,
Career skills may be defined as "A set of achievements, understandings and personal attributes that make individuals more likely to gain employment and to be successful in their chosen occupations"

Rationale behind developing Career skills: Emphasis on career skills was also due to the fact that there was lot of hue and cry from the industry that it is unable to get the required skilled workforce for its operations. Our Ex-President, Dr. Abdul Kalam once pointed out that India does not have a problem of unemployment but unemployability and this was proved in a survey on Higher education system in India. It was found that 48% of the companies find it difficult to get skilled workforce for their operations. This is an alarming situation, particularly in India which boasts of Demographic Dividend. It was realized that this Demographic Dividend which is an asset today will turn into liability if the required skill sets are not imbibed by the working youth. And so quite appropriately, the focus has been on career skills.
Other reasons for developing career skills are:

1. The emergence of global economy demands reshaping and adapting of higher education policy to changed global realities
2. The entire skills set required by the industry at global as well as national level has changed. Higher education system cannot afford to overlook this.
3. More than half of the job opportunities to be created in India would be skill specific and therefore skill development has to be viewed seriously.
4. The growth momentum of the economy can be sustained only if skill gaps are addressed
5. All developed and developing countries have been pragmatically shaping their HE policies and thereby posing a tough competition for India

Need for life skills: In recent years, however, there is an innate fear in our mind as to whether we are moving towards extreme practicability? Are we grooming our students to lead a quality life?
        If we take a look at the present conditions in the country we understand that on one hand we have innumerable opportunities because of globalization. We have to build up career skills, rise higher and come out of our comfort zones to grab the opportunities. On the other hand we have to go deep at grass root level and see that single most person in the lowest strata is benefitted. It is thus about striking a balance between social changes and the mandate of development before one of the largest democracies of the world. If we have to navigate through this complex environment, mere career skills will not help. Today's life and work environments require something more than mere thinking skills and content knowledge. It has to be a blend of career skills and life skills.

 Life skills include EQ, Attitude towards life, interpersonal skills, self awareness building skills, decision making, prioritization, empathy and coping with stress. TheWorld Health Organization (WHO) in 1993 defined life skills as, "the abilities for adaptive and positive behavior that enable individuals to deal effectively with demands and challenges of everyday life.

Life skills are a large group of psycho-social and interpersonal skills, which can help people to make informed decisions, communicate effectively and develop coping and self management skills that may help an individual to lead a healthy and productive life. Life skills are said to be derived from the values that one holds early on in the life and they develop to take different dimensions on the basis of situations and experiences that come across in one's life.So life skills are a a function of experiences. Then why talk about them in Higher education if it is all in the realm of experiences? This is because we do not want our students to flounder,when faced   with unfamiliar situations just because they are not skilled in processing the situation. In a world that is increasingly dynamic, we need to engage our students early on about the processes and outcomes and make them better equipped. We cannot wait for the event to happen and processing to begin. Therefore by providing simulated or live cases and situations we can help students understand to some extent how to cope with unfamiliar situations.The following example explains how a blend of career and life skills works:

Case Example:

Meaningful Relationship Between Academic Institutions and Society - An Effort to Deal with Social Issues

This has a reference to an activity organized by the students and teachers of Gowande College, Umerkhed, Maharashtra.

The issue of farmers in Maharashtra (specially Vidarbha and Marathwada region) committing suicides due to their inability to repay heavy loans is generally known to all of us.

Here is a college, where the teachers and students of Faculty of Arts -Department of Psychology, Sociology, Political Science , Economics and Languages, decided to conduct a study of this problem within their place Umerkhed and the primary survey estimated that approximately 800 such deaths have taken place during 18 months prior to this survey. Without going into much details, it is important to note that they collectively decided to undertake the task of putting a full stop to such farmers'; deaths .

Subsequent to the survey, they had meetings , house visits, report writing, fund raising drive, counseling, and every kind of support including medical help and personal supervision to the aggrieved families.

As a result there were work shops conducted for farmers on alternative crops and modern techniques of agriculture. The youngsters started joining schools and colleges. Women were provided vocational training and they started their own small business activities

With such relentless effort within a year there was not a single suicide committed in Umerkhed. .Every teacher and student understood the real meaning of education. It brought a new confidence and self trust amongst them. The entire scenario had undergone a 360 degree change. This we are sure could not have been achieved through a score of courses and projects.

It is worth noting that student offering any subject in the college had something to contribute to address the social issue which proved the worth of their education beyond doubt.

**Career skills if combined with life skills would lead in this direction**

Rationale behind including life skills in HE

1. Equipping learners with various life skills to promote acceptable behavior and attitudes
2. To empower people in challenging situations
3. To help make informed decisions and establish positive, healthy relationships
4. To improve the quality of life.

Blending of career and life skills will help us ensure that students not only master numerical abilities,reading and writing but also develop the capability as:

1. Global citizens, to live and act in a knowledge based learning society and multi cultural world.
2. Communicators who will integrate themselves into information revolution
3. Workers who will adapt and create new opportunities to work
4. Preservers of their culture and cultural identity
5. Life long learners who will learn and contribute to knowledge based society.

Based on the above discussion, it is my personal opinion that a three component model can be suggested to revitalize the academic culture. This model can evolve further
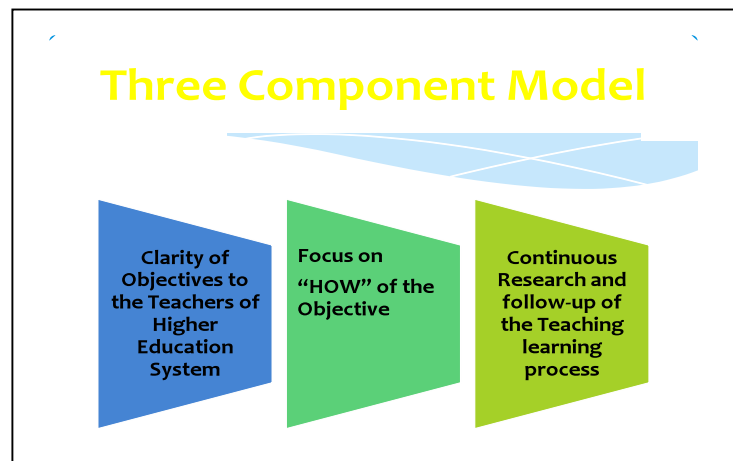
1. **Clarity of objective:** As a first step, the teachers themselves have to be oriented as to the exact objective of higher education system. They must be able to understand, appreciate, imbibe and assimilate these objectives in the teaching learning process

2 "**How" to achieve the objective:** The teaching learning process has to be designed and developed and implemented in a way that can best achieve the objective of Higher Education. A creative teacher can find several reference points within the curriculum to achieve this. For

example,a simple act of assigning group work in a class is an opportunity to build team working skills. A creative teacher undertakes many such activities, within and outside the classroom, quite often to reach out to the students effectively. What is required is the internalization of such skills. This internalization can happen when some time is spent by teachers on discussing the dynamics of the experience to resolve the probable struggle that may have happened when groups of individuals work towards a common goal. This "dissection time" should not be overlooked because experiences may fade away but the skills imbibed remain forever. An exclusive time slot may be provided for internalization of these skills.

3. **Continuous research** and follow up: The teaching–learning process has to be enriched continuously through monitoring, follow up and research so that a sustainable quality development is achieved.

Conclusion

The implementation of above model can help the Indian higher education system not only to meet the domestic demand but also the international demand for qualitative and competitive participation of human resource. It can help achieve the objective of higher education that can be compared to **four pillars of learning** mentioned in the UNESCO's Report of the International Commission on Education for the Twenty-first Century, which states that education must be organised around four fundamental types of learning: the four pillars of knowledge – learning to know, i.e., acquiring the instruments of understanding; learning to do, so as to be able to act creatively in one's environment; learning to live together, so as to participate and cooperate with other people in all human activities; and learning to be, an essential progression which proceeds from the previous three (Delors, 1996).

With this ideology towards Higher education and appropriate policy measures taken by the government from time to time, India can achieve many accolades to its credit.

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What is Wrong with these Students and How Can We Fix Them? The Changing Face of Motivation and Engagement Strategies in the College Classroom

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Abstract

There is much discussion in higher education today focused on concerns of the lack of student engagement and motivation. Variations of the phrase, "I've never seen such lack of student effort" ring through the hallways of institutions across the nation. Much research has been done on ways to enrich the classroom environment to make it more enticing to the college learner, but the root of the problem lies much deeper. This paper focuses on the hierarchy of needs, as identified by Maslow's (1970).   This hierarchy of needs is generally described in pyramidal fashion with the understanding that, until lower levels of need are met (starting at level one), higher needs cannot be obtained. Learning, in the traditional sense, occurs at level five. Thus, if an instructor wants to increase motivation and engagement in his or her classroom, it becomes imperative that an attempt be made to address the lower level needs first.

Keywords: motivation, engagement, college, Maslow

"Don't try to fix the students, fix ourselves first. The good teacher makes the poor student good and the good student superior. When our students fail, we, as teachers, too, have failed."

Marva Collins

Introduction

There has been much research on the difficulty of motivating and engaging students in the PreK-12 realm of education. Teachers and administrators from those age and grade ranges long ago discovered that the focus, attention span, and interest of students are changing. Why is it then, that lack of motivation and engagement of college students is now being treated as a relatively new problem? Many of the students that have been filtering through the PreK-12 programs for the last several decades have been migrating into the higher education setting. The engagement and motivation issues these students demonstrated during their elementary, middle, and high school years did not simply fade away during the summer between their senior year in high school and their first year in college.

Just as PreK-12 teachers recognized what always worked before was no longer working, and there was a need to re-evaluate the pedagogical practices they were using, college instructors must also be willing to recognize and accept that change is necessary. Contrary to the saying "if you always do what you've always done, you'll always get what you have always gotten," doing what they have always done is no longer working for college instructors. The physical, social, and emotional makeup of today's college students is very different from 20, or even 10, years ago. Thus, it is time to alter the approach. Higher education instructors must re-examine their own pedagogical approaches if they wish to address the problem of lack of motivation and engagement in the college setting.

The first step in this process is to recognize and accept the fact that nothing is "wrong" with the students who are entering higher education. They are not broken, and if the approaches used in solving the motivation and engagement issues are addressed through the lens of us trying to "fix them," then the approaches will fail miserably. The students currently sitting in college classrooms could be considered a form of natural selection. That is to say, the students have evolved to fit the new environment in which they find themselves living and learning. The attitude of "fix the student" would only work if it were possible to change the environment. No, the student and environment are not going to adapt to fit the mold of the traditional college setting. Instead, the mold must be reconstructed to fit the new student and the ever-changing learning environment.

Let me begin with a clarification of the term engagement. Taylor, Hunter, Melton, and Goodwin (2011) defined it as the "amount of time and energy students devote to educationally purposeful activity" (p. 74). According to Axelson and Flick (2011), student engagement refers to "how *involved* or *interested* students appear to be in their

learning and how *connected* they are to their classes, their institutions, and each other" (p. 38). Research has shown that several factors play an integral role in creating an engaging learning environment: relevance, control and choice, challenge, social interaction, anticipated sense of success, need, novelty, and cognitive dissonance (Kirby and McDonald, 2009).

When asked who is responsible for creating and sustaining high levels of student engagement, Axelson and Flick (2011) surmise that institutions have been relegated with progressively more of this responsibility. "Colleges and universities – and especially the professors in whose classroom students find themselves – clearly have a large role to play in fostering student engagement" (p. 42). This supports Kuh's (2009) research that the institution is, at least in part, responsible when he surmises "student engagement represents the time and effort students devote to activities that are empirically linked to desired outcomes of college *and* what institutions do to induce students to participate in these activities" (p. 683). Thus, if it is deemed that higher education instructors are responsible for creating engaging classroom environments, where do we begin? According to O'Connor (2013), recent research into student engagement is indeed leading professors into a reevaluation of their own pedagogical practices. His research focuses on ways to increase class participation in the college classroom.

After spending nine years in public education, followed by another nine in higher education, I have discovered that the pedagogical strategies that engaged and motivated my third and eighth graders are the same ones that I find working with my college students. To demonstrate the connection between engagement strategies at the college level and those proven effective in K-12 settings, I will build on the work of Marzano and Pickering (2011) and on the work of renowned educational psychologist, Abraham Maslow (1970), which focuses on a hierarchy of needs that all people experience.

According to Marzano and Pickering (2011), four areas establish a framework of engagement: emotions, interest, perceived importance, and perceptions of self-efficacy. They frame this research in what they refer to as four emblematic questions that students, in essence, ask themselves to ascertain their engagement level in that moment: How do I feel?; Am I interested?; Is this important?; and Can I do this? Through analyzing and responding to these questions, instructors are able to identify barriers to learning and, through addressing them, address the engagement and motivation issues that may be occurring.

Maslow's (1970) hierarchy of needs is generally discussed in pyramidal fashion with the understanding that, until lower levels of need are met (starting at level one), higher needs cannot be obtained. Those levels are: 1) biological and physiological needs such air, food, sleep, shelter, and warmth; 2) safety needs such as protection from elements, security, and stability; 3) social needs such as belongingness and love; 4) esteem needs including self-esteem, achievement, and mastery; 5) cognitive needs including knowledge and meaning; 6) aesthetic needs such as appreciation and search for beauty and balance; 7) self-actualization needs including realizing personal potential, self-fulfillment, and seeking personal growth; and finally; 8) transcendence needs which involve helping others to achieve self-actualization. Learning occurs at

level five, cognitive needs. Thus, until the needs of the prior four levels are met, engagement and motivation in learning are beyond the grasp of students.

Biological and Physiological Needs

How a student feels about the learning experience is the determining factor in the probability of that student being engaged in the lesson. Whether a student is engaged in the learning at hand can be directly tied to the emotional state at that time. Maslow (1943) states

> If all the needs are unsatisfied, and the organism is then dominated by the physiological needs, all other needs may become simply non-existent or be pushed into the background . . . the urge to write poetry, the desire to acquire an automobile, the interest in American history, the desire for a new pair of shoes are, in the extreme case, forgotten or become of secondary importance. (pp. 373-374)

According to Maslow, biological and physiological needs are essential to the basis of human existence. The need for food, water, and shelter take precedence over all others. "Obviously a good way to obscure the 'higher' motivations, and to get a lopsided view of human capacities and human nature, is to make the organism extremely and chronically hungry or thirsty" (Maslow, 1943, p. 375). Maslow is not, of course, advocating for withholding these necessities, on the contrary, he is clearly maintaining the importance of meeting those basic needs. Students who are overly tired or perhaps have not been eating regularly or nutritiously are not as likely to be engaged as learners than those who have had these needs addressed.

Although we have limited control over the sleeping and eating habits of our students, Marzano and Pickering (2011) address another topic that focuses on the "How do I feel?" question that is completely within the control of the instructor. "If emotions are negative in that moment, we are less likely to engage in new activities or challenging tasks" (p. 3). Perhaps not surprising, negative emotions such as boredom, disinterest, and frustration lead to lack of classroom engagement while more positive emotions such as enthusiasm, enjoyment, and interest lead to higher levels of engagement. If students find the lesson interesting, exciting, or relevant, they are much more likely to participate in the learning process.

Marzano and Pickering (2011) identify a positive demeanor on the part of the teacher as the second greatest influence on student emotional engagement. They state that a teacher can demonstrate a positive demeanor through enthusiasm, intensity, and using humor. "We know the classroom teachers have enormous power over their students for good or ill – that a powerfully engaging instructor of botany, could turn 30 botany hating students into botany lover/learners" (Axelson & Flick, 2011, p. 43).

I find that enthusiasm in the classroom can be quite contagious. If I am excited about the content I am covering, the students generally will become more interested in it as well. The energy of the classroom environment directly relates to Marzano and Pickering's (2011) question, "Am I interested?" I tell my teacher candidates if you are bored with what you are doing; your students are likely to be bored also.

When discussing the topic of teacher liveliness with my college learners, I was given immediate feedback by the smiles on their faces as they began sharing stories. One student mentioned a particular professor who, even though the subject was not her favorite, really caused her to be interested in the topic because he was just so "passionate" about it. Another student indicated that she was not at all excited about taking certain classes because she did not see the relevance. However, because the instructor was so excited about the material and brought it alive with his own stories and experiences, she loved the courses.

There are many things instructors can do to help address their students' biological and physiological needs. First, get to know your students so you may notice when there are issues with basic needs, and then you can refer the students to offices on campus where they can receive help. Use advising time to discuss the importance of eating breakfast and getting sufficient sleep. Learn to recognize signs of substance and other types of abuse and make appropriate referrals. Finally, utilize classroom activities that encourage physical movement and conversation to counteract fatigue and boredom.

Safety Needs

Maslow discusses the second level of needs, safety needs, as those that cover topics such as security, order, limits, and stability. "We may generalize and say that the average child in our society generally prefers a safe, orderly, predictable, organized world, which he can count on…" (Maslow, 1943, p. 378). Students who have concerns with safety are not likely going to place much emphasis on their education at that time. This prioritizing will result in a lack of positive response to the question posed by Marzano and Pickering (2011), "Is this important?" Obviously, safety and security needs are going to take precedence over intellectual needs for that student.

I recently called a student to my office because of concerns over numerous missed classes in one of my evening courses. The student was appreciative of my concern and shared that she was nervous about being out after dark due to something that had recently happened to her.   I offered to contact campus police to ask an escort to walk her to the parking lot, or even walk her there myself after class if that would make her feel better. The student accepted my offer and did not miss another class after our conversation.

Instructors can help meet the safety and security needs of their students by assuring classroom civility is a priority in word and deed for both student-student ***and*** teacher-student relationships. Students feel more secure in classes where expectations are clear and consistent; thus, structure classes and assignments so students understand expectations. Instructors should create their office environment to be "safe zones" for students so they feel comfortable asking for help or advice. Finally, be aware of campus safety policies and protocols and share that information with your students.

Social Needs

Social needs include a human's desire for belongingness and love. We have an innate need to feel we are part of a group or family. We need to show, and be shown, affection and we value relationships with other people. Maslow (1943) states that a person "will hunger for affectionate relations with people in general, namely, for a place in his group, and he will strive with great intensity to achieve this goal" (p. 381).

Students' perceptions of acceptance is unquestionably a determiner of how emotionally engaged students will be in the classroom. "Certainly, the relationship teachers have with students is one of the most powerful determiners of how a student answers the question 'How do I feel?'" (Marzano & Pickering, 2011, p. 6). Hu's (2011) research discovered positive correlations between social engagement and college persistence. Marzano and Pickering (2011) find that "It is not what a teacher thinks and feels about a particular student that forges a positive relationship with the student. Rather, it is how the teacher speaks to and behaves with the student that communicates respect and acceptance" (p. 36).

Throughout my years in higher education, I can unequivocally state that when students have come to me in distress about some aspect of their college lives, it has generally been because of a negative interaction with an instructor. I often say to my teacher candidates, "Your students won't care until they know you care." I have found this also to be true in college students. I have had many students, moved to the point of tears, complain they went to an instructor because they were struggling with some part if his or her course to be met with indifference or even slight hostility. Statements such as "we covered that in class" or "you can find that information in your book" were reported as common replies without any further effort toward assistance.

In my discussions with students, I have often heard statements that many professors do not care if the students fail. The students indicate they feel they were bothering the instructor or that the instructor acted as though he or she did not want to spend any time helping the student. One student's impassioned comment was "they need to show compassion in teaching us and not just teach to a room." Conversely, another student who really struggled with a particular course indicated she had an instructor who really did try to help. As a result, she found herself working even harder. She said that because he cared, it made her care more and she worked harder to be successful for that instructor.

The ways instructors can fulfill some of the social needs of students are not difficult. First, learn and use the students' names. Recognition of students as a people and not just as faces in a classroom goes a long way toward showing students that you recognize them as individuals. Second, provide students with a variety of office hours so they have access to you. Third, show students you are concerned about helping them be successful by responding to emails and phone calls in a timely manner. Fourth, assure that all students are given opportunity to speak and participate in class activities, and create a classroom environment where differing opinions are welcome. Finally, utilize in-class group activities, which can help a classroom become a supportive community conducive to group learning, support, and belonging.

Esteem Needs

"Satisfaction of the self-esteem need leads to feelings of self-confidence, worth, strength, capability and adequacy of being useful and necessary in the world. But thwarting of these needs produces feelings of inferiority, of weakness, and of helplessness" (Maslow, 1943, p. 382). A student's sense of self-efficacy has a profound effect on engagement. As Marzano and Pickering (2011) indicate, if students believe they can accomplish the task, they are much more likely to become engaged in the activity.

The answer to the question, "Can I do this?" is fundamental in identifying the impetus behind human intention. Regardless of how strongly a goal might be desired, if it is believed attaining that goal is an impossibility, it is unlikely that much time or effort will be directed toward pursuing it. "If the answer is yes, students are more likely to engage. If the answer is no, students might lessen or abort their involvement" (pp. 15-16).

I often pose this question to my own teacher candidates, "Which comes first - experiencing success or belief that you can experience success?" This is where I see the biggest division between public education and higher education when addressing student engagement. In public education, teachers are taught to help their students by providing whatever assistance is necessary until a student is able to experience success. This type of assistance is not as common in the higher education setting. Ownership and responsibility falls more predominately on the student, and the instructor takes a much less accommodating role in helping students achieve success. The college atmosphere is much more of a "sink or swim" approach.

I believe for there to be a significant change in how esteem needs are met in the higher education setting, there must be a fundamental shift in college instructors' views of their roles in the learning process. They will have to step down from the proverbial "sage on the stage" role and adopt the "guide by the side" mentality. This is by no means to indicate that expectations should be lowered. Our profession calls for high standards for our students, and those standards should not be compromised. However, the path that we take to achieve those expectations is not the same one that has been travelled by those who have gone before us.

Instructors can help meet students' self-esteem needs by treating their students with respect. Become aware of campus support services such as academic success centers. Utilize advising time to identify weakness, but also provide suggestions that could help lead to success. Advise students to seek tutoring and perhaps even course changes if prior knowledge is not in place to assure success in certain courses. When grading papers, provide positive feedback in addition to marking mistakes, and provide explanations for grades earned on assignments.

Conclusion

So whose responsibility is it to see that our learners in college classrooms are engaged in the learning process? Taylor et al.'s (2011) research collected data on this particular question. They found student respondents (particularly from non-major courses) felt that class engagement "was largely a purely faculty responsibility to ensure engagement by being 'cool' 'knowledgeable', and most of all – 'entertaining' " (p. 78). Axelson and Flick (2011) clearly point out that it is the combined effort of both the students and the institution. "Students need to put forth the effort necessary to develop their knowledge and skills, and institutions need to provide the appropriate environments to facilitate student learning" (p. 42).

Axelson and Flick (2011) recognize this topic as potentially flammable and wisely suggest that we focus on the broader issue:

> But if we define engagement in a more limited sense – i.e., student involvement in a learning process – we can move past the issue of who is responsible to a more productive question: 'what are the factors affecting student engagement in a particular type of learning process?' This could lead to less politically charged, more locally based, efforts to identify and illuminate barriers to student engagement in classrooms and educational programs. (p. 42)

When one accepts the fact that until the needs at the biological, safety, social, and self-esteem levels are met, level five, cognitive needs (the level where learning occurs) cannot and will not be reached, a paradigm shift occurs. The implication is that the students who are experiencing engagement issues in college are not broken. They do not need fixed. However, they do have needs and until those needs are addressed, engagement is not going to occur.

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Effects of Computer Simulation Package, Gender and Parental Education on Nigerian Secondary School Students' Attitude Towards Biology

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Abstract

The conventional method used by teachers has led to negative attitude towards Biology. Researchers ascertain that students' attitude could be enhanced when they participate in teaching-learning process. This study determined effects of computer simulation package in the teaching of Genetics on students' attitude towards Biology. The study also determined the effect of gender and parental education on students' academic achievement in Biology. The pretest-posttest, control group, quasi-experimental design with 2x2x3 factorial matrix was adopted. Two hundred and forty (240) students from four purposively selected schools in Oyo State, Nigeria, were used for the study. Three null hypotheses were tested at 0.05 level of significance. Five instruments used for data collection were: Teachers Instructional Guides for Experimental and Control groups; Students' Attitude to Biology Scale (r= 0.83), Computer Simulation Package on Genetics in Biology and Assessment Sheet for the research assistants. The procedure for data collection involves 2 weeks for training of research assistants, 1 week for pre-test, 8 weeks for treatment and 1 week for post-test. Data collected were analyzed using Analysis of Covariance (ANCOVA). Treatment had a significant effect on students' post-test attitude score $(F(1,228)=273.495, p<0.05)$. Student's attitude towards Biology was significantly improved with computer simulation package. There was also a significant effect of parental education on students' attitude. However, the package was found to be suitable for both sexes. It is therefore recommended that computer simulation instructions can promote positive attitude towards Biology and should be adopted.

Keywords: Computer simulation instructions, Attitude towards Biology, Gender, Parental education

Introduction

The impact of science and technology on education cannot be over-emphasized. The advent of information and technology especially the product aspect has influenced both the content as well as methods of teaching. Most of the developed countries have exploited the potentials of ICT (Information Communication Technology) to transform their educational landscape at the tertiary, secondary and even primary school levels particularly the instructional process (Kosakowski, 1998). Generally, ICT holds out the opportunity to revolutionize pedagogical methods, expand access to quality education, and improve the management of education systems (World Bank, 2002). Nigeria, especially the educational sector has not properly harnessed the potentials of Information Technology (IT) in terms of the educational uses as in developed countries like America and Britain. Unfortunately, in Nigerian classrooms, the typical pedagogical pattern, which reflects an authoritarian didactic approach to classroom management, does not prepare students for the information age and globalization. In other words this pattern is not equipping "students to live effectively in our modern age of science and technology".

The World Bank (2002) also declares that when properly integrated into a broader educational programme, the most important use of ICT in education is as a pedagogical tool. Nigeria, as a developing nation needs her youths- the future generation to be prepared and equipped for the 21st century challenges. This calls for the need to integrate ICT into her educational system. The purpose of education is to produce wholesome, pleasant and understanding individuals who will interact wisely and purposely within and outside the environment and in line with this Biology education aims at helping the child to acquire appropriate skills, abilities and competencies that would enable him to contribute to the development of the society (Ajewole, 1998). Biology teaching is needed in the world today much more than before since its teaching helps the young to understand their environment-physical, biological and human.

Ogunleye (2002) reported considerable students' under-achievement in biology. Although biology is rated to be an important subject among other science subjects since its the science option of many students to satisfy the registration requirements at the Senior Secondary School Certificate Examination (SSCE), yet over the years, several research reports indicate that students achieve poorly in it.   Educators have continued to draw attention to the grave consequences of constant decline in students' performance in science subjects especially in public examinations such as National Examinations Council and West African Secondary School Certificate Examinations (Ogunleye, 2002).   This is corroborated by finding that the performance level for science subjects did not show any significant rise for a twenty-year period between 1991 and 2011, perhaps because non science students used to register for Biology as a core science subject.   The analysis of Senior School Certificate Examinations' result in Table I made available from the West African Examinations Council (WAEC) statistics unit on enrolment of students and their performance in biology revealed the enormity of this problem.

A further analysis of the SSCE results in biology from 2002 to 2012 as shown in table 1 confirms the poor performance of the secondary school students in the examination, although there was an improvement in students' performance in the subject in year 2005 and 2006.   Many factors have however, been highlighted as contributing to students' under-achievement in biology – these comprised of inadequate curricular content, topic difficulty, overloaded timetable, teacher-related problems, inadequate preparation on the part of the students, teaching methods, large classes, lack of innovations in teaching strategies such as lack of media resources etc (Okebukola, 1998). The trend of mass failure in senior secondary school biology final examinations therefore warrants a new approach to teaching the subject. In spite of all the strategies recommended for the teaching-learning process in sciences especially biology, the results have not been improving. Probably, the potentialities of ICT and active learning strategy have not been fully exploited in the Nigerian educational system at secondary school level.

Effective learning involves students developing the ability to purposefully access information from a variety of sources, analyze and evaluate the information and then integrate it to construct a personal knowledge base from which to make intelligent decisions (Nwosu, 2003). Active learning is a strategy that promotes effective learning among students. Meyers and Jones (1993), define Active Learning to involve providing opportunities for students to meaningfully talk and listen, write, read and reflect on the content, ideas, issues and concerns of an academic subject.

The question now arises, are science teachers, especially biology teachers prepared to use this tool? There is the need for the science teachers to embrace and use ICT as tools in dissemination of knowledge, skills and attitudes. Although, various teaching methods and packages have been recommended in the past for the teaching of secondary school science subjects in Nigeria, Adegbile (2002) however, observed that one of the major problems militating against effective teaching of secondary school subjects in Nigeria is the method of teaching/package adopted by the teachers.

To live, learn and work successfully in an increasingly complex, information-rich and knowledge based society, students and teachers must utilize technology effectively, (UNESCO, 2008). It has also been observed by Youssef (2004) that the foundations of pre-adult attitudes toward learning are formed during childhood and that these attitudes govern behaviour throughout adult life. Duyilemi (2005) therefore advised that students should be given opportunity to be actively involved in the learning process. This has therefore; created room for further search for other instructional strategies that could appeal to the learners and that would help to achieve the objectives of science education.

Computers are sometimes used in biological investigations for collecting data, searching literature, planning experiments and analysing data. These functions are very common in many science and biology laboratories. However, educators recommend simulations for formulating and, improving the conceptual models that scientist and science teachers use in their practice and teaching. This would enable the numerous objectives to be achieved in order to have improvement in the performance of students in external examinations. In lieu of this, there is a need for a boost on the

previous methods of teaching especially in the supposed difficult topics, genetics particularly.

So, it is obvious that there is an urgent need, most especially in Nigeria, to provide education that goes beyond teaching basic literacy and numeracy skills. Education must help to build higher-order cognitive abilities, strengthen processes of inquiry, enable collaborative problem solving and prepare people to compete in global markets and become productive members of societies. New approaches and strategies for change are needed, and computers, mediated communications and related educational technologies are an important part of this approaches and strategies.

The rapid increase in educational computer use has led to changes in the teaching/learning process, curricula and teachers' and administrators' approaches to instruction (Loveless and Ellis, 2002). These changes in instructional techniques are shaped by the fact that computer-assisted learning increases student motivation and creates better learning environments in which rote learning is minimised and meaningful learning can occur (Renshaw and Taylor, 2000). One way of enhancing learning is to help students create models of dynamic systems by combining words with pictures (Schnotz and Bannert, 2003). This approach has assisted in the development of a special type of interactive animation: computer simulations (Nerdel and Prechtl, 2004).

Computer simulations give students the opportunity to take initiative when learning about a given topic. Simulations are important for formulating and, improving the conceptual models that scientist and science teachers use in their practice and teaching.

The conventional method used by teachers has led to negative attitude towards Biology. Researchers ascertain that students' attitude could be enhanced when they participate in teaching-learning process. This is because of the following factors:- inadequate facilities, examination malpractices, decline in academic standards, poor funding of the educational sector by the government, poor parenting, socio-economic status

Using conventional teaching approaches in which the teacher dominates all the class activities right from introduction to conclusion hinders students' initiatives, preventing them from fully exploring and understanding complex principles. Wood and Gentile (2003), Blair, Schwartz, Biswas and Lewlawong (2007), express the opinion that the conventional method of teaching science is inadequate for effective learning in science.

Computer simulations, a sophisticated form of CAL, make it possible for students to experience and experiment with a variety of biological, scientific, weather, mechanical, business, mathematical, social, and political phenomena with less risk, cost, and time than has ever been possible. However, computer simulations make it possible for students to quickly grasp complex concepts and apply their understanding. In the absence of computer simulations, students usually learn the behavior of complex systems passively through general descriptions and definitions of system elements and primary governing rules. Moreover, because most complex systems involve several levels of positive and negative feedback and intricate interrelationships, general descriptions and basic rules are incapable of conveying much understanding

Researchers have come up with different findings on the effect of gender on learning outcomes. Some found no significant differences based on gender, Morribend (2004), Chukwuka (2005), Ogunleye (2002) and Raimi, (2003) individually reported that males perform better than their female counterparts in science subjects. Okeke (2001) and Aremu (2005) also reported significant effect of gender on learning outcomes in favour of the male students. This inconsistency calls for further investigations and clarifications.

Parental education and parental income are seen as moderators of parental affective factors in predicting achievement as they are crucial in providing educational opportunities for children to succeed. Studies have found that there is a strong relationship between parents' role with their children's academic achievement (Phillipson 2009).Therefore, this study arose for further investigations.

Objectives/Purposes

This study is conducted to establish the effect of computer simulation package in the teaching of Genetics on students' attitude towards computer simulation. This study also aims to find out the influence of students' gender and parental education on students' attitude towards Biology.

Hypotheses

The following null hypotheses were tested in the study;

$H0_1$:   There is no significant main effect of treatment on students' attitude towards Biology

$H0_2$:   There is no significant main effect of gender on students' attitude towards Biology

$H0_3$: There is no significant main effect of parental education on students' attitude towards Biology

Theoretical Framework

Constructivism is a philosophical position that views knowledge as the outcome of experience mediated by one's own prior knowledge and the experience of others. Human cognitive development is a continually adaptive process of assimilation, accommodation, and correction (Piaget, 1968).

The constructivist classroom presents the learner with opportunities for "autopoietic" learning with a view to helping learners to build on prior knowledge and understand how to construct new knowledge from authentic experience—certainly a view in keeping with Rogers' *experiential learning* (Rogers, 1969). For him, the qualities of experiential learning include: *personal involvement; learner-initiation; evaluation by learner; and pervasive effects on learner.*

Rogers' humanistic approach to learning is also conducive to personal change and growth, and can facilitate learning, provided that the student participates completely in the learning process and has control over its nature and direction;

For Dewey (1998), knowledge emerges only from situations in which learners have to draw them out of meaningful experiences. Further, these situations have to be embedded in a social context, such as a classroom, where students can take part in manipulating materials and, thus, forming a community of learners who construct their knowledge together. Students cannot learn by means of rote memorisation; they can only learn by "directed living," whereby concrete activities are combined with theory. The obvious implication of Dewey's theory is that students must be engaged in meaningful activities that induce them to apply the concepts they are trying to learn.

Applying constructivist theory to the classroom situation

Constructivist teachers pose questions and problems, then guide students to help them find their own answers. They use many techniques in the teaching process. For example, they may:
- prompt students to formulate their own questions (inquiry)
- allow multiple interpretations and expressions of learning (multiple intelligences)
- encourage group work and the use of peers as resources (collaborative learning)

The constructivist approach helps students learn HOW TO LEARN.

Relevance of the theory to this study

The constructivism theory contributes greatly to this study; it supports knowledge construction in students and help student in the act of knowing. Concentration, perception, memory and logical thinking are cognitive skills for successful learning that help in construction of knowledge and these are the things that this study focuses its research on by using computer simulation packages.

Methods

The study adopted a pretest, post-test, control group, quasi -experimental design using a 2x2x3 factorial matrix. The design is shown structurally below:

Experimental Group; 0_1 X_1 0_2
Control Group; 0_3 X_2 0_4

Where 0_1 and 0_3 are pretest scores of experimental and control groups respectively.

0_2 and 0_4 are post-test scores of experimental and control groups respectively.

X_1 is the computer Simulation Package.

X_2 is the Conventional Based Instruction.

Analytically designed 2x2x3 factorial matrix of the study is presented in the table II.

Sample Selection

Four public secondary schools from two local government areas in Oyo State Nigeria were randomly selected for this study. Specifically, two schools from Egbeda local government area and two schools from Ibadan North local government area were randomly selected for this study. The criteria used for selecting the schools are;

1.   The schools used as experimental group should have electricity facilities.

2.   Availability of experienced biology teacher.
3.   An evidence that the topic Genetics has not been taught.

Research Instruments

The following instruments were prepared and used for the study;
1. Students. Attitude to Biology Scale
2. Computer Simulation Package on Genetics in Biology (CSPGB)
3. Operational Guide for Computer Simulation Package on Genetics in Biology (OGCSPGB)
4. Operational Guide for Conventional Based Instruction on Genetics in Biology (OGCBIGB)
5. Evaluation Sheet for Assessing Teachers' Performance during Training (ESAPT)

Students Attitude to Biology Scale (SABS)

The instrument was designed to measure the effective domain which is the way of thinking of the students on the use of computer simulation instruction. The instrument is divided into two sections- A and B; Section A consisted of personal data: Name of School, Type of School, Sex, Parents Occupation, and Parents level of Education, and also four factual items. Section B consisted of 20 items on four point- Likert scale. Ten items out of 20 items indicated positive number while 10 indicated negative number. The likert-type response range from; strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The instrument was used for both the pretest and the posttest.

Face validity was done by showing it to 2 senior colleagues in science education, my supervisor and finally to a research expert, to determine the suitability in terms of clarity of ideas, use of language, and relevance to the study. The initial 21 items were reviewed to 20 items. The 20 items draft was administered to 20 students at a neutral representative school outside the main sample of the study. The reliability was computed using Cronbach alpha measure. The standardized alpha value of 0.83 was obtained, indicating that the instrument is reliable. Table of Specification for Students Attitude to Biology Scale (SABS) is in table III.

Computer Simulation Package on Genetics in Biology (CSPGB)

CSPGB, a programmed instruction, was developed by the researcher and its mode of instruction is self-learning; it involved the trained teachers as a facilitator to operate during its use. CSPGB was prepared according to behavioural objectives of the topic- genetics in the biology curriculum for senior secondary school.

Conventional Based Instruction on Genetics in Biology (CBIGB)
The mode of instruction of CBIGB is not learning package but the normal traditional way of teaching-learning process in classroom and the instruction is in form of lesson plan.

The instrument was prepared according to the behavioural objectives of the topic-genetics in the biology curriculum for senior secondary school.

Operational Guide for Computer Simulation Package on Genetics in Biology (OGCSPGB)
This instrument was developed by the researcher to guide and ensure uniformity in the use of computer simulation package instruction for a period of eight weeks (One period per week); it also ensures easy operation for all users.

Operational Guide for Conventional Based Instruction on Genetics in Biology (OGCBIGB)
The instrument was developed by the researcher to guide and ensure uniformity in the conventional based instruction especially the steps, teacher activities and students' activities in the schools used as control group for a period of eight weeks (One lesson per week).

Validation of the following 4 instruments:
- **Computer Simulation Package on Genetics in Biology (CSPGB),**
- **Conventional Based Instruction on Genetics in Biology (CBIGB)**
- **Operational Guide for Computer Simulation Package on Genetics in Biology (OGCSPGB),**
- **Operational Guide for Conventional Based Instruction on Genetics in Biology (OGCBIGB**).

All these stimulus instruments were validated by using the comments of my supervisor, experienced biology teachers, and Information Communication Technology (ICT) experts.

Procedure for data collection
Work Schedule
2 weeks   Training of teachers
1 week   Pre-test (using SACSS and SABT)
8 weeks   Treatment (using CSPGB OGCSPGB,CBIGB)
1 week   Post test (using SACSS and SABT)

Training of Teachers

The researchers trained teachers in selected schools on how to adhere strictly to the instruments and experimental procedure. Briefing session was also organized for the students participating in the study in their various schools. Two teachers were trained as research assistants for the experimental group while the teachers for the control group were asked to adhere strictly to the instructional guide

Pre-test

The researchers and research assistants administered the pretest using Students Attitude to Computer Simulation Scale (SACSS) on the subjects of study. The two instruments were administered in such a way that individual's SACSS and SABT were collected together in order to ensure easy analysis of individual's cognitive and attitudinal scores.

Treatment

The researchers used a period of 8 weeks as treatment period in the 4 schools for the study.

Experimental Group

This group includes the two schools that were treated using Computer Simulation Package on Genetics in Biology (CSPGB). After the first week of administering the pretest, Students were grouped and allowed to receive learning instructions according to the Operational Guide for Computer Simulation Package on Genetics in Biology (OGCSPGB).

The CSPGB introduced the topic, taught, and at the end of the instruction, the computer Simulation package also evaluated the students' knowledge so far. The researchers made sure the process of teaching according to the OGCSPGB is followed throughout the treatment period in the two schools used as experimental schools
The steps involved in CSPGB are:

STEP I:- Teacher tells and emphasizes on students adherence to instructions on how to use the Simulation Package.
STEP II:- Teacher monitors the students as they use the Simulation Package
STEP III:- Teacher asks pupils to ask questions based on the topic taught by the Simulation Package.
STEP IV:- Teacher helps the students to close the program.
The 10th week was used for **posttest.** The researchers with the research assistants administered the posttest on the students in the same order of the pretest.

Control Group

This group includes the two schools that were taught with the conventional classroom practices using Conventional Based Instruction on Genetics in Biology (CBIGB). After the first week of administering the **pretest**, students were prevented from consulting internet on the topic genetics. Students were taught using the Operational Guide for Conventional Based Instruction on Genetics in Biology (OGCBIGB) for a period of 8 weeks (2nd – 9th week) and the 10th week was used for posttest. The researchers with the research assistants administered the posttest on the students in the same order of the pretest.

Post Test

The researchers and the research assistants administered the posttest just like the pretest.

Procedure for Data Analysis

The data obtained was analyzed using Analysis of Covariance (ANCOVA) using the 2 x 2 x 3 factorial analysis and pretest scores as covariates. The analyzed data is used to test the research hypotheses. The Multiple Classification Analysis (MCA) was used to show the magnitude of the posttest mean score. Bar charts were used for possible explanations of observed significant differences.

Results

Ho1: There is no significant main effect of treatment on students' attitude to biology.

The summary of ANCOVA of students' attitude to biology by treatment, gender and parental education is shown in table IV.

According to table IV; the effect of treatment on attitude to Biology is significant $(F(1,228)=273.495, p<0.05)$ that is student's attitude to Biology was improved. So the null hypothesis is rejected.
.The multiple classification analysis of post achievement score according to treatment, gender and parental education is shown on table V.

Table V shows that students exposed to computer simulation performed better with higher adjusted posttest achievement mean score (mean=72.215; dev.=3.21) than their counterparts who were taught with the conventional teaching method (mean=49.743; dev.=-3).

Figure I shows bar chart of the mean achievement scores of students according to treatment. The magnitude of the distribution indicates Computer Simulation (mean= 72.215) < Conventional (mean=49.743)

Ho2: There is no significant main effect of gender on student's attitude to Biology.

As showed in table IV, the main effect of gender on student's attitude to Biology is not significant $(F(1,228)=2.885, P > 0.05)$. This means that there is no significant difference between male students' attitude to Biology and female student's attitude to Biology. The null hypothesis is not rejected.
Figure II shows bar chart of the mean attitude scores of students according to gender. The magnitude of the distribution indicates Male (mean= 66.33) < Female (mean=56.68)

Ho3: There is no significant main effect of parental education on student's attitude to Biology.

As shown on table IV, there was a significant effect of parental education on students' attitude to Biology (F(2,228)=3.078,P < 0.05). This means level of parental education has effect on students' attitude to Biology. So the null hypothesis is rejected. Figure III shows bar chart of the mean attitude scores of students according to parents' education. The magnitude of the distribution indicates low (mean= 52.078) < Medium (mean=53.511)< High (mean= 66.288)

Discussion

There is significant main effect of treatment on students' attitude. The significant role of Simulation package may have influenced students' attitude towards science over time. Students' perception of scientists was one of the science-related attitudes that showed significant change. This result is confirmed by prior research into realistic simulations showing the relevance of science and change in how students perceive science (Jarvis & Pell, 2005). Live simulation learning environment has potential for changing students' self-perception and goal orientation. The use of realistic simulation often requires students to apply newly acquired skills while motivating them towards advanced learning (Moreno & Mayer 2007). This finding is in line with previous research of Ozel (2008), Pektas (2008), Pilli (2008) and Azar & Sengulec (2010).This may be due to the effect of simulation package used in teaching Biology that motivates students and gets them to take an active part in the learning process. It helps to develop creativity and problem solving skills, identity and self-reliance in learners.
It was also revealed that there was a significant effect of parental education on students' attitude. Researches like Eamon 2005, and Hochschild 2003 revealed that poor parental education affects students' outcomes including attitude. Eamon 2005 stated that poor parental education prevents access to resources and leads to additional stress and conflict at home that affect all aspects of a child's life.

Scientific/Scholarly Significance of the Study

The findings of this study revealed that computer simulation-based instructions were more effective than the conventional-based instruction in Genetics in Biology. The findings of this study have some implications for Biology teaching in secondary schools. Based on the above, it is the responsibility of science educators, educational practitioners and the practicing science teachers, especially Biology teachers to embrace computer simulation-based instructions. The Biology teacher who is faced with the problem of handling students that are faced with negative attitude towards Biology can embrace computer simulation-based instructions to supplement his or her teaching and also to increase the level of concentration of the students thereby aiding class control. This would promote the enhancement of educational objectives. Teachers are to be trained on how to develop instructional packages with the use of computer simulation.

Curriculum developers and designers should provide instructional designs that are based on computer simulation. This would enhance positive attitude towards educational objectives. Instructional designs that are learner-centered should be provided so as to foster motivation, participation and creativity among students.

Recommendations

Based on the findings of this study, the following recommendations are advanced:

1. Secondary School students in Nigeria should be encouraged and motivated to learn through electronic means.
2. Students should be sensitized and enlightened that computer system and internet access is not only for social pleasures alone but should be seen and used for academic purpose.
3. School principals, administrators and other stakeholders in both public and private sectors should be trained and updated periodically on the use of computer systems in the teaching and learning process.

Conclusion

The focus of this study was to develop ICT-based instructions (in form of computer simulation) and to expose the students involved in the study to electronic learning. The study also determined the effect of gender and parental education on students' academic achievement in Biology. From the findings of this study, it could be deduced that positive attitude towards Biology can be enhanced through the use of the products aspects of Internet and Communication technology (ICT).

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Table I: Percentage Distribution of Students' Performance in May/June Senior School Certificate (SSCE) in Biology in Nigeria: 2002 – 2012

Year	Total Entry	Total sat	Credit Passes 1-6	Percentage Passes
	No of Candidates.	No of Candidates	No of Candidates	% of Candidates
2002	1,240,163	882,119	278,112	31.52
2003	1,006,831	909,101	392,249	44.15
2004	1,005,553	1,027,938	253,487	24.69
2005	1,080,162	1,072,607	375,850	35.04
2006	1,170,522	1,152,045	559,854	48.60
2007	1,270,137	1,238,163	413,211	33.37
2008	1,292,910	1,259,964	427,644	33.94
2009	1,372,567	1,340,206	453,928	33.87
2010	1,331,381	1,300,418	427,644	33.90
2011	1,540,141	1,505,199	579,432	38.50
2012	1,695,878	1,672,224	649,156	38.82

Source: Statistics Section, West African Examination Council (WAEC) National Office, Onipanu, Lagos, Nigeria.

Table II: 2x2x3 Factorial Matrix

Treatment	Parental Education	Gender	
		Male	Female
Computer Simulation package	High		
	Medium		
	Low		
Conventional based instruction	High		
	Medium		
	Low		

Table III: Table of Specification for Students Attitude to Biology Scale (SABS)

S/N	Section/Items	Positive items	Negative items	
Attitude of students towards theoretical Biology			1,2,7,	3
Attitude of students towards practical Biology		15	3,4,5	4
Attitude of students towards Biology as a subject		8,11,12,13	6,9,10,14	8
Total		5	10	15

Table IV: Summary of ANCOVA of Students' Attitude to Biology by Treatment, Gender and Parental Education.

Hierarchical Method					
Source of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Model	16891.863	12	1407.655	330.484	.000
Gender	12.287	1	12.287	2.885	.091
Treatment	1164.916	1	1164.916	273.495	.000
PEDU	26.220	2	13.110	3.078	.048
Gender * Treatment	1.641	1	1.641	.385	.535
Gender * PEDU	18.611	2	9.306	2.185	.115
Treatment * PEDU	4.444	2	2.222	.522	.594
Gender * Treatment * PEDU	.152	2	.076	.018	.982
Residual	971.137	228	4.259		
Total	17863.000	240			

Table V. Multiple Classification Analysis of Post Achievement Score According to Treatment, Gender and Parental education.

GRAND MEAN=60.98

| Variable+Category	N	Unadjusted Predicted mean	Adjusted predicted mean for Factors and Covariates	Unadjusted Deviation	Adjusted Deviation for Factors and Covariates	Eta
[Gender=1.00]	107	66.3271	66.427	2.023	3.51	0.879
[Gender=2.00]	133	56.6767	56.576	-2.09	-2.91	0.864
[TM=1.00]	120	72.1250	72.215	0.014	3.21	0.054
[TM=2.00]	120	49.8333	49.743	0.22	-3	.
[PEDU=1.00]	51	52.0784	51.988	0.574	-6.806	0.012
[PEDU=2.00]	43	53.5116	53.421	-0.88	-1.306	0.0104
[PEDU=3.00]	146	66.2877	66.397	-0.447	9.194	0.013

R Squared=0.966, R=0.965
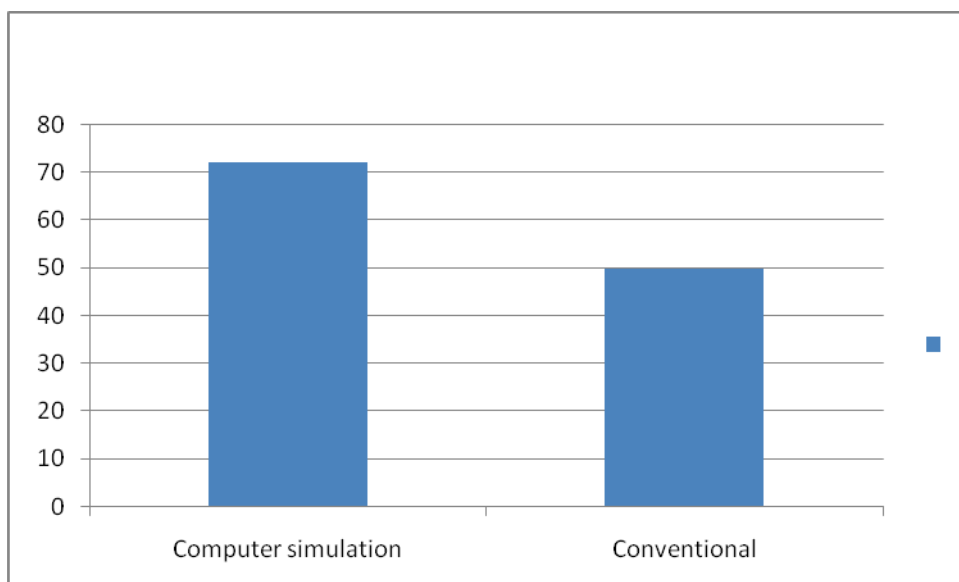
Figure I: Bar Chart Showing the Mean Attitude Scores of Students According to Treatments.
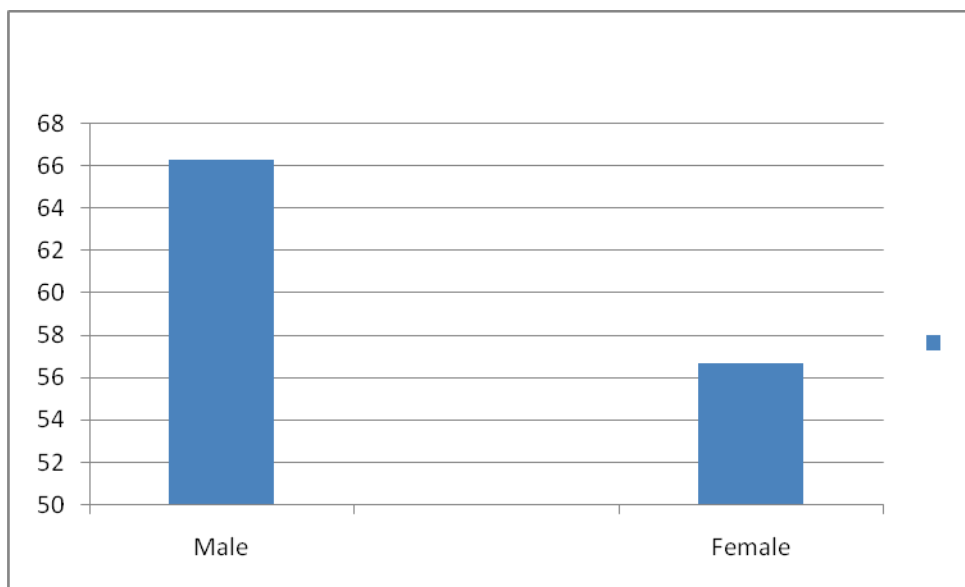
Figure II: Bar Chart Showing the Mean Attitude Scores of Students According to Gender.
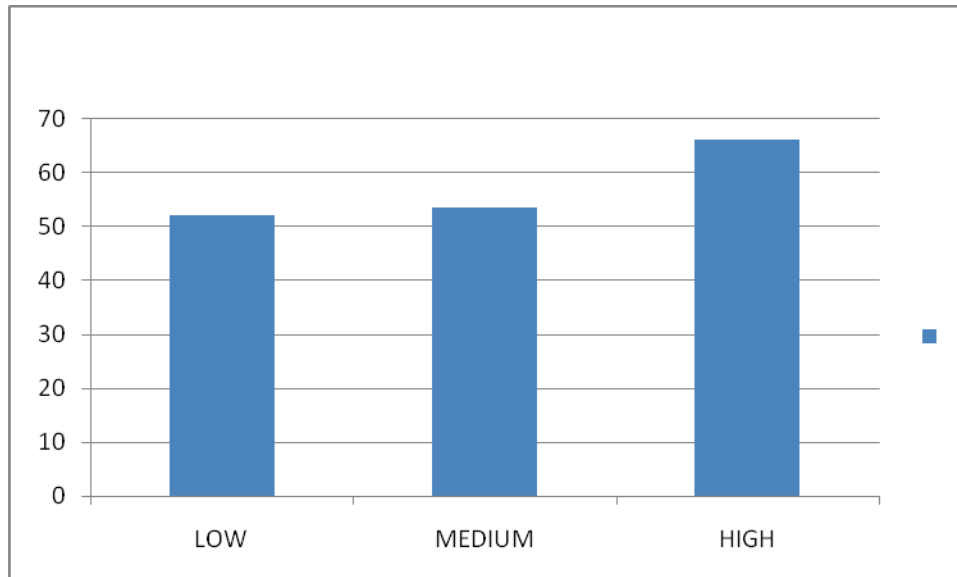

Figure III: Bar Chart Showing the Mean Attitude to Biology Score Across the Three Levels of Parental Education.

Medical Chemistry Course Result Quality Evaluation Criteria and Corresponding Critical Thinking Levels as Evaluation Parameter

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Abstract

Fundamental medical chemistry course allows first year students to verify continuity of knowledge gained in high school as well as to form a continuous learning process from already completed and just started courses. The developed didactic model, organizational work forms and learning materials allow students to adapt to new conditions and intensive work schedule in medical chemistry course. Study materials have been developed over a period of several years and they contain regularities proven by easy to understand examples thus motivating students to distinguish specific chemical processes as well as their causes and effects in given medical problems. Cause and effect analysis in turn develop skills in information analysis that are integral components of competence and critical thinking. Elementary critical thinking skills (how to identify the problem, how to prove arguments as well as to be conscious of contradictions and faults) are effectively developed by medical chemistry course. Critical thinking development methods (different methods of information analysis, problem task solving, graphical information systemization and dialogue skills) are also applicable to medical chemistry course. The experience gained over several years confirms effective mastering of medical chemistry course by using this approach. It is therefore that evaluation criteria for mastering the course material and corresponding critical thinking levels (determinable by final examination) have been developed based on grades of final exams.

Keywords: evaluation criteria, critical thinking

Introduction

Intensive studies, systematic examination and objective evaluation are the main preconditions for quality study process during the semester. Gained qualitative and quantitative data are indications of positive results or aspects which still need development. Evaluation results give information to lecturers regarding the effectiveness of didactic methods and to students regarding their advancement.

Evaluation of knowledge, skills and competence is realized by tests, individual/self-dependent as well as group tasks, problem exercises, laboratory work protocols, demonstrations and final exam. Criteria testing planned in medical chemistry course can be divided into diagnostic, formative, topic oriented and final examination. Evaluation criteria is justified and explained to students thus establishing feedback in order to avoid misunderstandings regarding requirements and adequacy of evaluation. By understanding the criteria used for evaluating student grades and performed work, students gain motivation and justification for adequate self-assessment and improvement.

By assessing own achievements, students - through reflection - critically analyze own strong points thus gaining new stimulation for improvement by purposefully broadening self-realization opportunities and heading towards self-organized study process. Evaluation necessary for development of student's competence and personal progression implies diversity of evaluation methods as well as integration of quantitative and qualitative methods.

Nature of evaluation depends on its purpose. Information necessary for students differs from information necessary for lecturers.

"Evaluation purposes:
1. Evaluation as integral part of study process;
2. Evaluation to gain information regarding success of the program;
3. Evaluation to gain information regarding student achievements;
4. Evaluation to diagnose study process of individual students;
5. Evaluation to strengthen student knowledge before proceeding to the next topic;
   a. Evaluation to show study priorities and develop a certain attitude towards study process;
   b. Evaluation to increase student confidence in their abilities by accenting skills used for accomplishing a task rather than evaluation itself;
6. Evaluation to justify decisions regarding a student;
7. Evaluation to guide towards a certain goal;
8. Evaluation to provide symbolic importance" (Pratt 2000).

Along with already described purposes - consciously or unconsciously - other functions significant to study process may emerge during evaluation: self-evaluation and reflexion on results, linking acquired information with other study subjects, repetition with accent on the fact that given information should already be known within another context.

When planning evaluation, the method of obtaining information, which is to be evaluated, is very significant. In order for evaluation to be successful, following points must be taken into consideration:

- objectiveness and transparency - avoidance of lecturers subjectivity and erroneous verdict;
- individual and differentiated approach - observation of individual qualities of students;
- systemic and compulsoriness - frequent tests for consecutive evaluation and successful planning of study process;
- comprehensiveness - inclusion of all material planned in study program in tests.
- Within medical chemistry course tests, students demonstrate different skills, knowledge and competences and, based on which, tests are categorized by levels accordingly:
- Analytic - highest level;
- Productive - intermediate level;
- Reproductive - lowest level.

Materials and Methods

Medical chemistry course studies are based on didactic principles of university: unification of scientific and training work. Didactic principles determine how to realize regularities in studies in order to achieve certain goals and develop study material and methods for mastering it. Main goals and tasks of the study process are forming comprehension of future medics of human metabolism as set of chemical processes providing vital functions in human organism as well as developing critical information analysis skills in order to discover reasons for pathologies and realize actual solutions for medical problems in a scientifically correct manner. Developed didactic model is intended for providing quality study process of medical chemistry course by using critical thinking development methods.

Medical chemistry course, however, is a base for developing critical thinking which is possible by performing following tasks: learning regularities of critical and logical thinking, comprehension of logical procedures, justification, argumentation of verdict, evaluation and self-evaluation, finding logical errors, since students need to become "critical consumers of information" in chemistry course as well as in other disciplines.　For example, when Ennis define critical thinking as "reasonable reflective thinking focused on deciding what to believe or to do," the assumption is that "deciding" usually leads relatively unproblematically to the "doing" (Ennis 1987).

Organization of study process is based on constructional (von Glasersfeld, 1995). and cognitive theories (Bruner, 1996) and is tended towards problem analysis and theoretic or mathematic solutions. Experience gained over several years proves the effectiveness of the developed and probated didactic method within medical chemistry course since results of final exams show stable results. Within the research, two aspects of hypothesis were examined: effectiveness of critical thinking methods in medical chemistry course and comparison of adequacy of usage while working with Latvian and foreign students. Achieved study results can be evaluated using criteria used in medical chemistry course and corresponding critical thinking levels shown by student grades in the final exam.

Exam contains calculation exercises, problem tasks, theoretic questions and their justification with clinical examples or examples of laboratory work done during the semester. Calculation exercises of different complexity allow evaluation of different critical thinking skills. According to obtained results in exam (grades in 10 mark grading scale), students demonstrate gained knowledge, skills and competence in medical chemistry as well as corresponding critical

thinking levels (evaluated indicators of criteria). Indicators of every criterion can be determined based on chosen didactic method and indicators of its effectiveness which emerge in the form of test results (Kazuša, 2012).

"Indicators included in criteria allow measuring and recognizing dynamic of researched phenomenon within existing or artificially created didactic reality by checking execution of tasks. Indicators are specific phenomenon of generalized criteria which allow detecting nature, cause, progression in didactic process, obtained level, etc." (Žogla, 2001).

Table 1. Medical chemistry course material mastering quality criteria and corresponding critical thinking levels as indicators of criteria

Medical chemistry course material mastering quality criteria	Corresponding critical thinking level	Critical thinking level indicators	Tests for evaluation
Analytic - highest level: ● Use of theory for explaining certain phenomenon; ● Understanding properties of linked phenomenon; ● Ability to graphically represent dependencies of physical variables; ● Understanding of experimental justification of theoretic phenomenon; ● Evaluation of experimental results and calculations; ● Understanding of context for researched phenomenon and fact linkage with other disciplines (physics, biology, physiology); ● Ability to navigate through information	High critical thinking level	● Researched situation is evaluated altogether, precisely detected context and conditions of the task without need for additional clarification; ● Logical use of existing information, result prediction, combination of theory and practice, use of given or additional information, reasoning without deviation from topic within solution; ● Verification of obtained result, practical or statistical evaluation, identification of contradictions or errors, analysis and correction, search for alternative solutions and their justification; ● Justification of obtained result only within the scope of	For testing knowledge and skills charesteristic for highest level, reflexion oriented tasks are used, execution of which demands meaningful action, logical judgment and broad generalizations.

sources in order to find necessary information and development of own study method.		existing facts and evidence.	
Productive - intermediate level ● Justification based on theoretic knowledge; ● Knowledge and understanding of chemical regularities and formulations as well as their mathematic justification; ● Knowledge and understanding of chemical designations; ● Understanding of equipment operation and ability to obtain and mathematically process measurements by knowing formulae.	Intermediate critical thinking level	● Verification of obtained result, practical or statistical evaluation, identification of contradictions or errors, analysis and correction	For testing knowledge and skills characteristic for intermediate level, it is necessary not only to test ability to reproduce study material but also comprehend and understand it. Tests cannot be completed based solely on memory since phenomenon must me identified as well as generalized.
Reproductive - lowest level ● Knowledge of separate facts; ● Oral or written description of chemical phenomenon, ability to perform simple calculations; ● Recognition and use of chemical containers and equipment; ● Recognition of certain chemical elements and	Low critical thinking level	Problem recognition. Question formulation for clarifying the problem. Solution process - transparency, logic, analysis of existing information. Verification of obtained result and practical evaluation.	For testing knowledge and skills characteristic for lowest level, reproduction based tasks are used within which students demonstrate their knowledge and skills.

reaction types.			

Within the first semester, most of the students can execute tasks connected with critical thinking only within special study situations. Critical thinking as all-round competence which can be directed towards broad range of problems and situation analysis (high critical thinking level) cannot be observed and evaluated in most of the first year students. Therefore for part of students, only certain aspects of critical thinking used for mastering medical chemistry course are evaluated - certain skills in solving problems, ability to compare one's own solution and solutions of others, effectiveness of information analysis, choice of information credibility criteria and self-assessment which correspond to low critical thinking level.

Research is based on medical chemistry program and consists of:
1.   situation identification stage at the beginning of the semester;
2.   Evaluation of effectiveness of didactic model at the end of the semester.

Exam results reflect contribution of used critical thinking method to successful mastering of medical chemistry course. The questionnaire results illustrate students' opinion of effectiveness of used didactic model and reflection on their own contribution.

All Latvian as well as foreign students participated in questionnaires at the beginning and end of the semester. Experimental and control groups were not used since parameters determined by questionnaire are directly connected with pass-rate, method effectiveness and cannot be separated from exam results which illustrate progress of all students. Another reason why division in experimental and control groups is not possible is that students participate in medical chemistry course only one year and at the beginning of the semester it is not possible to evaluate group as a single unit. The research was carried out by comparing data obtained at the beginning and at the end of the semester while having students also evaluates the medical chemistry course as a part of their medical education.

The goal of situation identification part is to determine the most effective work forms or distracting factors as ell as student conceptions about studies, medical profession and motivation to learn chemistry. The goal of the second part was to determine effectiveness of didactic model based on identifications of critical thinking criteria, which are characterized by affirmative or negative answers to statements in the questionnaire:

·   My new knowledge is always based in previous experience;
·   Within new information I always look for regularities;
·   New information has to be schematic and visually easy to perceive;
·   New information has to be descriptive and broad;
·   Chemistry course is basis for medics understanding of vital processes;
·   Within chemistry course I learned to analyze and systemize facts as well as predict results;
·   Within given study material presentation of facts promotes me to evaluate what is already known and change my opinion;
·   Facts given in theoretic material of chemistry course not only logically derive from each other but also show contradictions which must be interpreted according to one's own experience;

·   Theoretic material in laboratory work in chemistry is validated in practical experiments, results of which are statistically processed and justified.

Data from questionnaires illustrates student experience that significantly changes within just one semester. At the beginning of the studies only 53.0% of Latvian students and 38.7% of foreign students base their knowledge in precious experience. Medical chemistry material and practical work promotes students to reevaluate this position and change their approach since by examples in study material they are shown that chemistry is not seperable from other disciplines. Missing knowledge in chemistry can be compensated with knowledge in e.g. biology or physics. At the same time, students realize that insufficient knowledge in mathematics do not allow to fully understand researched subject and its theoretic justification. By understanding concepts of physical-chemical processes, regularities and their nature, students develop general view regarding how it is all connected. This knowledge allows students to explain, model and predict phenomenon and mathematic expressions allow numeric evaluation. Knowledge of processes in e.g. chemical solutions show students link between physical, chemical, biological and physiological processes.

Results of data processing by using Pearson correlation ($\alpha = 0,05$) (Oxford University press, online resource centers) proves hypothesis of the research - use of critical thinking methods in mastering medical chemistry course is effective.

At the end of the semester 76.2% of Latvian students and 71.9% of foreign students agree with statement: "My new knowledge is always based in previous experience". Thus it is possible to conclude that didactic method creates or improves study experience for a significant amount of students.

Figure 1 Significance of experience in study process
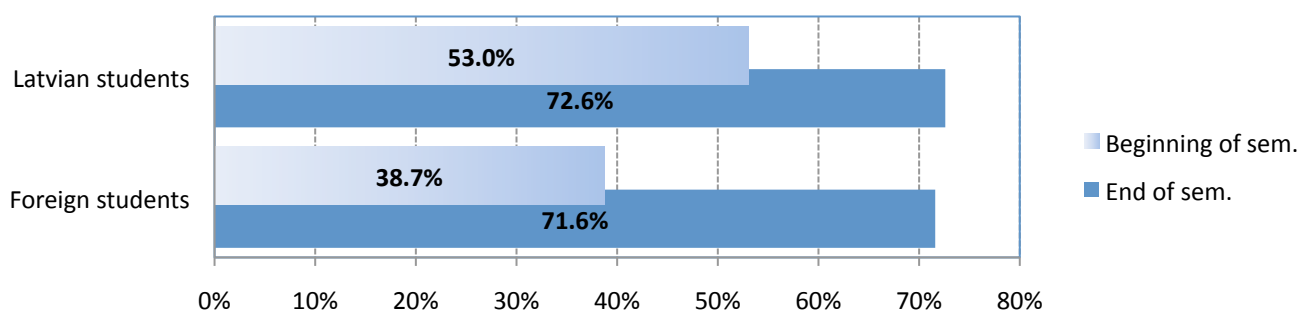
Statement "Within new information I always look for regularities" describes existing level of critical thinking for 59.5% of Latvian students and 52.6% of foreign students. By looking at this process in dynamic context together with indicators at the beginning of the semester and comparing with results at the end of the semester by using Pearson correlation ($\alpha = 0,05$) (Oxford University press, online resource centers) the hypothesis of the research is proven - use of critical thinking methods in mastering medical chemistry course is effective since students improve their information analysis skills as well as increase motivation to better

understand the study material. The developed study material promotes critical approach to information analysis and serves as a reference point for using alternative sources of information.

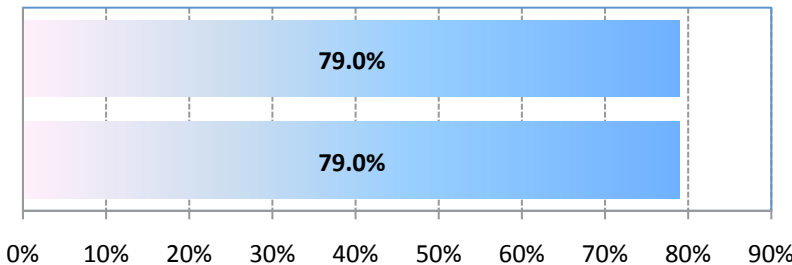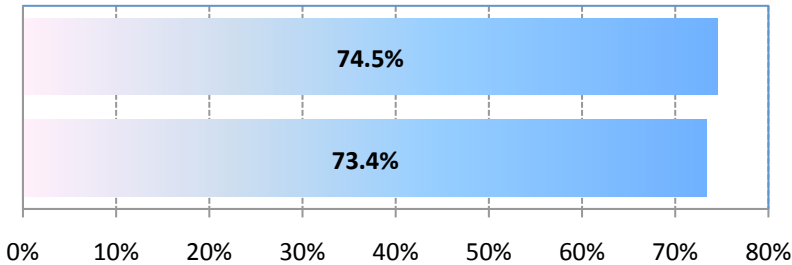Figure 2 Regularities in new information
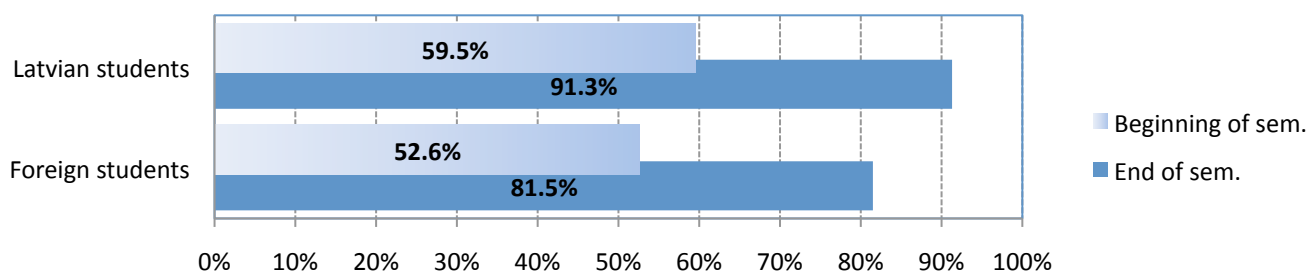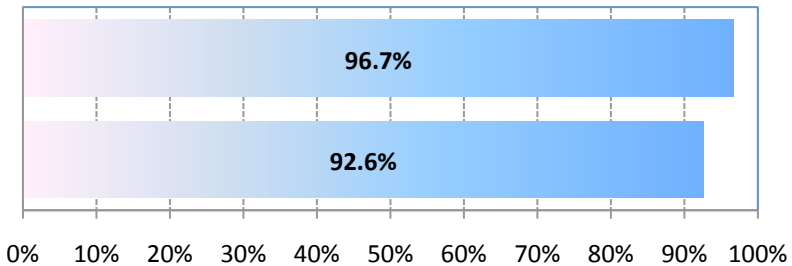
Positive evaluation of didactic model can be illustrated by students agreeing with statements given in table below. By comparing results of Latvian and foreign students using Pearson correlation ($\alpha = 0,05$), the difference between both groups is rejected.

Figure 3

Evaluation of didactic model

Nr.	Statement	Results
1.	Chemistry course is basis for medics understanding of vital processes	
2.	Within chemistry course I learned to analyze and systemize facts as well as predict results	

3.	Within given study material presentation of facts promotes me to evaluate what is already known and change my opinion	**Latvian students** — 79.0% **Foreign students** — 79.0% (0% – 90% scale)
4.	Facts given in theoretic material of chemistry course not only logically derive from each other but also show contradictions which must be interpreted according to one's own experience	**Latvian students** — 74.5% **Foreign students** — 73.4% (0% – 80% scale)
5.	Theoretic material in laboratory work in chemistry is validated in practical experiments, results of which are statistically processed and justified	**Latvian students** — 96.7% **Foreign students** — 92.6% (0% – 100% scale)

Comparison between Latvian and foreign students illustrates the current trend in education. Even though high school education level cannot be considered as equal neither in Latvia or in other countries, to students with high level of motivation it does not create problems when studying in university. This relates both to foreign students of RSU and graduates of Latvian high schools.

Conclusions

1. Described didactic model is intended for providing high quality study process in medical chemistry course which is effective and suits students with different previous learning experience.

2. By gaining study experience students become more motivated to learn critical thinking methods. These skills are applicable for analysis of information and structuring of learned knowledge.

3. Regularities of medical chemistry are basis for general natural sciences comprehension, which in accordance to cognitive theory stimulate incorporation of new knowledge into existing ones.

4. Questionnaire process is bidirectional communication between students and faculty, which enable to find out reached effectiveness level of work done, and flexibly react by correcting corresponding methods.

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Universities as Metaphors: From McUniversities to Ivory Towers

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Abstract

A vast amount of scholars have debated over the new forms of universities and respective changes in higher education sector in general. Labels like *entrepreneurial university, corporate university*, *elite university*, *mass-university*, *McUniversity*, *postmodern university*, and so on have spread around the scholarly literature, yet meaningful classifications of operating modes of universities are not easy to be found. By crafting typology of universities, current article strives to make sense of the organizational jungle out there in the higher education sector landscape. Instead of giving descriptive overview of the existing labels used to describe new forms of universities, the stress is on bringing out patterns and bridging existing labels in order to cluster those universities that operate in a similar mode.

Key Words: university, higher education, metaphors, management

Introduction

Traditionally universities have been open to the fortunate few, to the elite. Today, most parts of the world facilitate open access to the higher education, and this being so, universities as organizations have grown by size and scope. The largest university in the world in terms of enrolment numbers is the Indira Gandhi National Open University in India, which facilitates over 4 mln students. That exceeds even the population size of many countries, not to mention the size of the big business sector organizations. Such numerical examples are of practical importance, since they represent the enormous growth of higher education sector organizations. Building on this context it is easy to agree that universities as organizations are not only an attractive research matter, but furthermore, considering their impact to any society (Greenwood and Lewin 2001), making sense of higher education sector organization`s peculiarities will produce a valuable input both for university management and higher education policy makers.

Most of the studies tend to point out to the global trends in higher education in general, and un-proportionally few treatises address the question from the organizational level. Today, there is a vast jungle of universities out there, and it would be too bold to state that every single one of them is facing trends in higher education arena in similar way. That said, one needs to put more attention to the existing diversification of higher education institutions.

Current article seeks to cluster universities as metaphors so to produce systemized image of the existing university modes out there. Gareth Morgan`s book *Images of Organization* (1998) signposted the great power of metaphors for giving a simplified picture of one`s subject matter. Morgan`s (1998) metaphors of organization as a machine, a brain, an organism, as political systems, as cultures, as prison, as instrument of domination and as a change or flux provided intellectually attractive overview of organizations as such. Although some authors like McCourt (1997) have questioned the fruitfulness of metaphorical approach, it is hard to deny that sometimes it is very useful to draw a simplified picture before going deep into the matter.

In light of the global changes in higher education the use of metaphorical language has entered the discourse for some time now. Labels like *entrepreneurial university* (Slaughter and Leslie 1997; Etzkowitz 1997; Vogel and Kaghan 2001), *corporate university* (Abel and Li 2012; Rademakers 2005; Prince and Stewart 2002), *managerial university* (Anderson 2008), *elite university*, *mass-university* (Altbach 2000), *McUniversity* (Parker and Jary 1995), *Postmodern university* (Aronowitz and Giroux 1991; Smith and Webster 1997), and so on have spread around the scholarly literature, yet among all single metaphors meaningful classifications of operating modes of universities are rare.

Identities Beyond the Ivory Tower

Morgan (1998: 31) has warned us how metaphors may create only "partial ways of seeing, for in encouraging us to see and understand the world from one perspective they discourage us from seeing it from others." I believe this is in fact what has happened to the higher education institution landscape. A remarkable amount of time and (digital)paper has been spent on mystifying over the good old times when higher education was considered to be available only to the elite and universities stood strongly as Ivory Towers. Such an image is often clashed with understanding how universities today are feeling pressures and the world demand that "the university once and for all abandon its serene ivory tower" (Ibarra-Colado 2001: 204). Current

article dears to make a bold statement how such an image has been made up by rather limited frames of reference, since universities for a long time have not been that homogeneous as often illustrated. A statement also supported by Delanty (2001: 151):

> There have been many historical as well as national models of the university, which, as an institution that is based on universalistic values—such as science and the world scientific community—is also, and necessarily so, very flexible and can accommodate different demands.

This being so, there is no reason why university as such should be operating homogeneously in Ivory Tower fashion. In fact, what reality from higher education landscape suggests, universities are far from similar to each other, expressing plurality of identities. It is here where I believe organizational identity becomes crucial in determining the taxonomy of universities in higher education landscape. Taking after Glynn (2000), organizational identity affects not only the way how organization defines itself, but most of all how it approaches such practical issues like strategic arrangements or organization`s capabilities. Simply put, organizational identity is a set of claims regarding what makes an organization distinctive (Albert and Whetten 1985). Yet as usually organizational identity has been approached by scholars as being deeply individual and intrinsic to organizations, current article strives to make use of organizational identity at the macro-level. That is, whether and how by looking from outside, all those identities of universities work together to form certain taxonomies. I could not agree more with a general agreement that organizational identity is a collective-level concept (He and Brown 2013), and as such the collectivity should not be limited only to single organization level, but looked from the eyes of the field or sector it is surrounded by. Regarding this, identity of a single university can be also seen as belonging to a specific cluster of identities in higher education sector. Organizations, especially universities take their legitimization from the surrounding environment. This being so, in order to exist, organization needs to get a "social acceptance" from the society (or to put it simple, from its potential "clients") and it becomes clear how identities are often created through metaphors, e.g. labels like *elite* and *McUniversity*. Although organizations are constantly engaged in the process of self-formation (Deetz 1982), in terms of Weick (1988: 130), this process is shaped by enactment with a wider surrounding as "the external environment literally bends around the enactments of people". Thus, building taxonomies in order to systemize reality is the core of sensemaking.

Methodological Framework

Current paper took the mission statements of the top 400 universities by Times Higher Education World University Rankings 2014. A mission statement can be defined as a justification of existence, a brief wording, which states who we are and what we do. With that in mind, mission statements often address various stakeholders, organizational members, clients, external partners, and so on (Stallworth Williams 2008). By analyzing the mission statements from the top universities of the world it is possible to bring out whether and how homogeneous the top universities actually are?

Such qualitative data from mission statements was analyzed and coded in order to be entered into the NVivo qualitative software program. Mission statements centered around two thematic

clusters or domains, which in turn had two subthemes: 1) the degree of specialization – either low or high, and 2) the degree of selectivity – either low or high. The overall categorization under the mentioned nodes is illustrated via table 1 below. Some illustrative extracts from the mission statements are brought to address the rationale behind the categorization.

Table 1. Listing content nodes emergent in mission statements

Categorization of labels (codes)	Description
Degree of specialization	
Low "A wide range of subjects, programs and disciplines" "Large university" "Public university"	Low degree of specialization indicates universities that offer a very broad spectrum of programs and cover wide array of disciplines. Often these are also large, public universities.
High "Sciences" "Technology" "Challenging fundamental problems" "Breaking research" "Engineering" "Achieving excellence"	High degree of specialization covers universities that indicate great efforts on science and technology, thus might offer highly specialized courses and more limited array of disciplines. The focus is on delivering ground-breaking discoveries and foster innovative ideas.
Degree of selectivity	
Low "Public service" "Open" "Affordable"	Low degree of selectivity refers to the universities that are oriented in serving large number of students, thus making higher education to be easily acceptable to many.
High "Exceptionally talented men and women" "Outstanding (students and staff)" "Careful selection"	High degree of selectivity refers to the universities that strive to pick out the most talented students and employees.

Source: Compiled by the author.

Conceptualizing Existing University Models: From Aristocrats to Technocrats

Rich (2005: 758) has proposed how organizational classification or taxonomy building can provide a solid ground for strong research by "breaking the continuous world of organizations into discrete and collective categories well suited for detailed analysis." The analysis of mission statements delivered how firstly, some universities tend to be more open than others – some deliberately try to control or restrict the access or the membership, while others facilitate growth by all means. Secondly, universities vary remarkably by their degree of specialization, whether it by technology, science, teaching, etc. Taking these two aspects as the axes for clustering university models, four different metaphors can be created: university as a bureaucrat, technocrat, aristocrat and democrat (See figure 1).
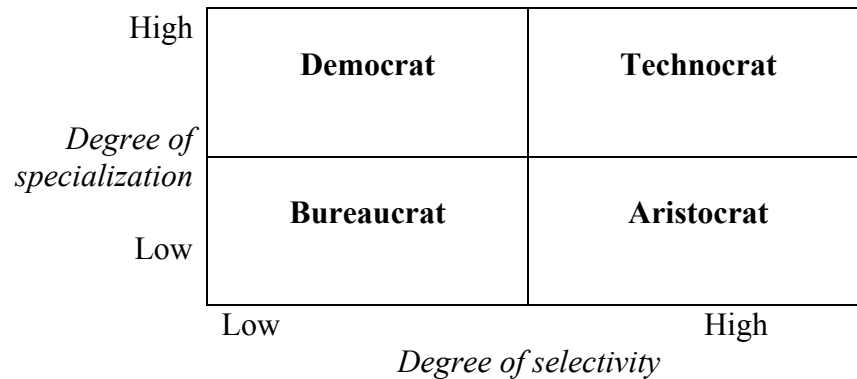
Figure 1. Four metaphors of universities.

Universities as Bureaucrats. Globally most evident is the tendency to move from elite specialization to *Fordist* style of mass production arrangement, where comparability and standardization at all levels are central to higher education institution management (Parker and Jary (1995: 321), similar to *tayloristic* work organizations (Greenwood and Levin 2001: 435). Borrowing operating modes from the business sector and profit-oriented organizations, such strive for standardized arrangements has been labelled by Ritzer (1993) as the *McDonaldization* of society. As several authors (Deem 1998) have reflected, the expansion of higher education sector due to an increase in demand for higher education, the pressure to justify one`s eligibility for public funds has turned into a tight competition. All in all it reflects university management modes, where universities are seen as means of massconsumption of higher education in a fast track mode – low degree of selectivity guarantees large enrolment numbers and low degree of specialization delivers higher education at the most universal level, covering a broad spectrum of programs and disciplines.

Universities as Democrats are the most frequent model of universities in most countries. This mode represents universities that are mostly national universities with long history in their country. Being often symbolic landmark of country`s higher education heritage, they offer full spectrum of traditional faculties or administrative structures, and are therefore with low degree of specialization. The label `democrat` reflects here over the idea that such universities are often faced with pressures from different parties or stakeholders, who`s interests they can not neglect. With internal orientation, their mission is to guarantee high quality higher education in the national language of the country (which does not imply that international scope would be automatically missing). That said, the degree of selectivity can be rather high, mostly restricted by the language barriers as most of the curricula are taught in the national language.

Universities as Technocrats. Originating from Greek language, *technē* denotes "know-how", skillful knowledge. In a sense, technocrat refers to someone who has the power to rule by know-how. Hence, technocracy is generally understood as the rule of the technical experts, which by all means is very accurate description or metaphor to a certain cluster of universities – that is research or technology intense universities. They tend to be highly specialized institutions

that are most often oriented to technological expertize. Technocrats have usually strong collaboration with business organizations, but furthermore, they tend to be a good ground for spin-offs and are often coined with a label *entrepreneurial university*. High degree in specialization is coupled with high degree of selectivity, since technocrats are focusing on selecting the best brains to be enrolled to the studies and recruited to work. That said, technocratic universities rely on highly specialized experts both at the student and employee level.

Universities as Aristocrats. It has been noted that originally, the expansion of higher education sector was possible mainly by expanding the elite universities, but it became soon inevitable that the old and graceful institutions could not expand endlessly due to their distinct traditions, organization and functions (Trow 2007). For this reason it is eligible to state how in the evolution of higher education elite Ivory Towers have not dissapeared, but have just been complemented by many other forms of higher education institutions. In a similar fashion, there is no reason to believe that other modes of universities should be seen as "the enemy of elite higher education", because all in all what has happened is that "elite higher education which was once the totality of higher education becomes a constantly smaller proportion" (Kerr 1978: 266). Universities as aristocrats metaphor tries to encapsulate the glorified image of the universities that carry on long and distinct academic heritage, the image of academic community as citizens in Ivory Tower. It is an image sharply pictured by Binder (1984: 29):

> Most of us in the academic profession have dreamed of a university where there is a continuing dialogue among faculty members and students, where students learn how to learn, and where administrators facilitate the growth of autonomous but responsible faculty activities focused on creative teaching. Such a university would have an unusual commitment to teaching as a vocation and to professors as individuals…

They reflect strong cultural background, where membership is marketed as a strong status and not accessible to many. For this reason, they are highly selective. Such image is often carried by Oxford and Cambridge in UK, but also Harvard, Princeton and Yale in USA. Universities as aristocrats have low degree of specialization in a sense that they usually deliver classical array of disciplines and programs, though these programs are often also taught at high level. The latter, high level taught programs is what differentiates aristocrats from other universities with low specialization, e.g. from bureaucrats. Aristocrats are focused on delivering intense and complex subject teaching (Trow 1976). They tend to build fields of science and teaching around high concentration of the best expertise and experts possible, e.g. attracting best scientist to work for them. In fact, the greatest distinction between other forms of universities and elite universities emerges from the ambitions injected into their members. As Trow (2007: 250) has expressed it:

> Whatever the specific content of the course of study and syllabus—and that indeed varies rather widely—this form of higher education conveys (and intends to convey) to students that they can accomplish large and important things in the world, that they can make important discoveries, lead great institutions, influence their country's laws and government, and add substantially to knowledge. In this sense, institutions of elite higher education are arrangements for raising ambition

and for providing social support and intellectual resources for the achievement of ambition.

In this sense, metaphor of an aristocrat becomes increasingly acute as it dears to image the attitude incorporated into the elite universities. Furthermore, Brennan (2004) brings forward how with expanded higher education and new forms of institutional hierarchy, higher education has become to reproduce social inequality as the access to the elite universities still remain highly restricted to those below the upper class.

Conclusion

A profound number of scholars have debated over the new forms of universities and respective changes in higher education sector in general. Seeing universities through metaphors allows to give a comprehensive image of the higher education sector`s landscape. Elaborating further, much of the literature on the global changes in higher education is written in style "to whom the bell tolls", that is, transformative changes in university landscape are seen as downgrading the essence of the university. I would rather argue that these global shifts should not be translated into negative meanings, since all they do is addressing different types of universities. As Kerr (1978: 270) has stated, "higher education cannot effectively be organized around a single model". University landscape 50 years ago was much more homogeneous, if not to say dominated by elite universities, yet today it is not to say that such Ivory Tower universities have dissapeared into McUniversities. Aristocratic Ivory Towers are still there, just that they exist side by side to Bureaucratic McUniversities.

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Kohlberg in Mumbai: Moral Reasoning of Twenty-first Century Indian Adolescents

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Abstract

"What makes a twenty-first century learner? Are adolescents today equipped with all necessary twenty-first century skills? How far is moral reasoning a significant ability in shaping the intellectual minds of a twenty-first century learner?" According to Gordon & Heincke (2013) the ability to reason morally is one of the important twenty-first century skills that today's learner should possess in addition to cosmopolitism and media literacy. In keeping with this view, "Kohlberg in Mumbai" is a quest to explore the moral reasoning skills of 13-year old Indian adolescents using American psychologist Lawrence Kohlberg's six-stage moral development model. Furthermore, the study investigated the influence of twenty-first century Indian culture onto the moral reasoning of five case students using the lens of five cultural dimensions proposed by Dutch social psychologist, Geertz Hofstede.

By analyzing the moral reasoning level of the case students, it was observed that culture did have an impact on the moral reasoning of twenty-first century learners. It concludes by recommending educators that, in order to gain a comprehensive understanding of moral reasoning of twenty-first century adolescent learners, one need to be cognizant about following four aspects: the technological and media influences on them, their religious beliefs, their native language, and their emotional and psychological concerns.

Keywords: moral reasoning, Kohlberg's moral development model, Hofstede's five dimensions of culture, twenty-first century learner

Introduction

Gordon & Heincke (2013) suggested that one of the significant skills a twenty-first century learner should possess is that of moral reasoning. There is an urgent need felt in today's educational system to foster moral reasoning abilities among youth to equip them for the citizenship of the twenty-first century (Halstead & Pike, 2006). Hence, for developing effective moral reasoning skills amongst the twenty-first century students, educators need to have a focused and a holistic approach. Relying on a single subject or course on moral education or ethics to educate morally literate individuals would only mean setting them up for failure (Hersh & Schneider, 2005).

Recent studies suggest that there is an extensive difference in the actual conduct of adolescents and their reported ethical values (Report Card on the Ethics of American youth, 2012). To diminish this difference, educators need to pay special attention to the moral reasoning of their students and the factors that affect their moral reasoning. Porter (2013) emphasizes the significance of moral education in lives of adolescents, as she believes that it plays a key role in their moral identity formation. Given the importance of educating twenty-first century adolescents with moral reasoning abilities, this study investigates the factors influencing the moral reasoning abilities of twenty-first century adolescent learners in Mumbai, India.

Research Line of Enquiry and Objectives

"Almost all individuals in all cultures go through the same order or sequence of gross stages of moral development, though varying in rate and terminal point of development" (Kohlberg, 1971, p. 176).

The above-mentioned quote by Lawrence Kohlberg, an acclaimed psychologist who proposed a stage-based moral development theory, raises many questions on the moral growth of individuals with different life circumstances: Do people across different cultures and context have similar moral reasoning? Do they perceive what is morally right and wrong as the same? Does it take into consideration the twenty-first century changes affecting the lives and cognitive capacities of youth today?

These questions acted as springboard to explore the impact of culture and context on the moral reasoning of twenty-first century Indian adolescents. This paper divides the exploration into two major lines of enquiry – studying the applicability of six-stage model proposed by Kohlberg in twenty-first century Indian context and then analyzing the role of culture in influencing the moral reasoning of Indian adolescents using Hofstede's five cultural dimensions as a yardstick.

Background

Recent studies on skills and knowledge of twenty-first century suggests that one of the significant skills that a twenty-first century learner should possess is that of reasoning morally towards the ethical dilemmas that arise in their daily lives (Gordon & Heincke, 2013). However, the question that arises is what makes a twenty-first century learner. Jacobs (2010) considers twenty-first century learners as "children of the globe, not just children of the neighborhood where they live" due to influences of internet and technology (p. 107). Then what role does

moral reasoning play in lives of such learners who are connected extensively to each other? How can educators equip 21st century learners to become morally literate citizens? Hence, an urgent need is felt for educators now to have a focused and a holistic approach to develop moral reasoning abilities of twenty-first century learners. This has become far more crucial in case of adolescents who are in the phase of identity formation (Erikson, 1968). To adopt a holistic approach, educators might have to study the factors that influence the moral reasoning abilities of their learners. Hence, this paper first attempts to define moral reasoning according to Kohlberg and then move on to study some of the important factors such as culture and context that have an impact on the moral reasoning of adolescents.

Moral Reasoning

Lawrence Kohlberg, a renowned psychologist in the field of moral development, claimed that morality is more than mere conformity to moral rules. This is because his interest lied more in studying *how* people think morally rather than *what* they think (Carpendale, 2000). Kohlberg defined moral reasoning as "reasoning about dilemmas of conflicting rights…" (Kohlberg, Levine, & Hewer, 1983, p. 91). Accordingly, Kohlberg studied the moral reasoning ability of eighty-four 10 to 16-year-old American males using his specially formulated moral dilemmas over a period of twenty years. Based on their responses, Kohlberg classified moral reasoning into three levels.

According to Kohlberg (1981), young children are at a pre-conventional level when their reasoning is egocentric and consequence-based. As they grow into an adult, they enter the conventional level wherein their moral decisions are based on society's views and expectations of them. As one moves into the post-conventional level of moral reasoning, an individual's perspectives takes precedence over society's view as that individual starts considering himself or herself as a separate entity from the society. The details of each stage are as described in **Table 1**.

Table 1 Kohlberg's six stages of moral development

Level	Stages	Moral reasoning depends on…
Level 1: Pre-conventional	Stage 1: Obedience and punishment	direct consequences of the actions on themselves
	Stage 2: Self-interest	"what's in it for me?" wherein the right behavior is based on what is in ones best interest while concern for others is limited to "you scratch my back and I scratch yours" attitude
Level 2: Conventional	Stage 3: Inter-personal accord and conformity	pleasing somebody and conforming to what is "good" for inter-personal relations
	Stage 4: Authority and social obedience	"one's duty" and obedience to authority and following social rules
Level 3: Post-conventional	Stage 5: Social contract	socially agreed upon standard of individual rights that changes from society to society
	Stage 6: Universal ethical principles	abstract reasoning using an individual's principles of conscience and universal ethics

Kohlberg's Universality Claim

Kohlberg claims the universality of his findings in his own work by stating that people in all culture follow similar stages towards moral development as mentioned above. Accordingly, Walker & Moran (1991) studied the cross-cultural universality of Kohlberg's model by interviewing 52 Chinese and Canadian adolescent and adult respondents. They concluded that Kohlberg's model did have universal applicability; however on further analysis of the responses it was revealed that the model did not take into account the indigenous concepts fundamental to Chinese culture. Likewise, Baek (2002) conducted a cross-cultural study of 128 British and Korean children aged 7-16 years from which he deduced that Kohlberg's model in itself is insufficient to explain the moral reasoning of children. He suggests that it should consider the cultural influences, since that played a key role in the development moral reasoning of children.

This indicates that cultural influences do have an impact onto the moral reasoning of adolescents that Kohlberg's model fails to consider. However, now it is fundamental to define culture and with what lens is this paper adopting to study moral reasoning of twenty-first century Indian adolescents.

Culture

Pioneering anthropologist E.B. Tylor defines culture as that *complex* whole which includes belief, *morals,* and any other *capabilities* and *habits acquired* by man (Young, 2008). This definition describes what constitutes a 'complex' called culture and refers to words such as *acquired capabilities* and *habits*. This indicates that culture has an impact on human cognitive

growth that is reflected in Hofstede's (1980) definition of culture: "the collective programming of the human mind…" (p. 25).

Given the 'complex' nature of the term culture, it was necessary to delimit it with certain relevant dimensions, which could be used in consolidating and analyzing the data that was collected. For this purpose, five cultural dimensions as proposed by Hofstede & Hofstede (2005) were adopted. These dimensions, as described by Hofstede & Hofstede (2005), are as follows:

1. Power Distance Index (PDI): In any given society, PDI is dependent on the extent of centralization of power by an authoritative figure. They believe that it is the degree to which the members of that society accept the autocracy that is exercised by their leader.
2. Individualism vs. Collectivism (IDV): Individualism pertains to societies where ties between individuals are loose and everyone in the family is expected to look after him or herself. In contrast, collectivism relates to strong cohesion between people in groups who continue to protect each other in exchange for unquestioning loyalty.
3. Masculinity vs. Femininity (MAS): Masculine cultures show characteristics particular to men such as being tough, assertive and striving for recognition; on the other hand feminine cultures depict features of being tender, modest, and concerned about quality of life.
4. Uncertainty/ Avoidance Index (UAI): People in a society with weak UAI negotiate each day as it comes and hence, have a natural tendency to feel secure and confident. On the other hand, a society with strong UAI tends to have people who are nervous and anxious due to the unpredictable nature of the future and hence feel insecure and avoid risk.
5. Long Term Orientation (LTO): This cultural dimension relates to the importance that members of a culture give to immediate benefits vis-à-vis delayed gratification of their material, social and emotional needs. Hence, a person from a culture of long-term orientation will seek for long-term benefits in lieu of short-term.

These dimensions were used as a lens to study the cultural implications onto the moral reasoning of the students under investigation. One of the reasons why Hofstede's dimensions were used is that it is one of the most widely used work among various researchers and whose initial study on culture had received 1036 citations (Sondergaard, 1994). However, this framework was adopted provisionally with a view to finding out whether it needs refining with respect to the study of moral reasoning of twenty-first Century Indian adolescents.

The Present Study

Analyzing the previous research studies highlighted above, this research study sought to verify the assumption that there is a relationship between culture and moral reasoning. This enquiry is fine-tuned to investigate the significant role that Indian culture plays in the moral reasoning of twenty-first century adolescent learners. Furthermore, it investigates how effective are Hofstede's dimensions in studying the applicability of Kohlberg's model within twenty-first century Indian context.

Methods

Participants

For the purpose of this study, a Religious Education Class in Mumbai having twenty-five 8th grade students (aged 13-14 years) was selected. A curriculum that focused on ethics and moral values was taught to these students. The research study was carried out over a period of eight weeks. A purposive selection of the five case students was carried out to allow some degree of balance in terms of gender and socio-economic status as suggested by Blaxter, Hughes, & Tight (2006).

Instrument

Kohlberg and his research team had formulated nine dilemmas for their study and divided it into three *Forms* (A, B, C) with three dilemmas in each. Considering the limited scope of this study of eight weeks, only *Form A* dilemmas were used with their accompanied set of probing questions prescribed by Colby & Kohlberg (1987). One of the three dilemmas that were used for this study is as follows:

> "In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid $400 for the radium and charged $4,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money and tried every legal means, but he could only get together about $2,000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So having tried every legal means, Heinz gets desperate and considers breaking into the man's store to steal the drug for his wife" (ibid, pp. 82-83).

Since the study evaluated the viability of Kohlberg's model in the Indian context, the structure of the dilemmas was not changed but the content was linguistically and contextually adapted to the Indian context. For instance, the name 'Heinz' was changed to 'Harish' and currency denominations and amounts were changed as well. Henceforth, these are referred to as "Modified Kohlbergian Dilemmas" (MKDs). White, Bushnell, & Regnemer (1978) found that there is no difference in the responses of the subjects when they are administered with such contextually adapted dilemmas. Hence, it is assured that adapting the dilemmas would not distort the findings of this study.

Procedure

The study was taken through four phases as depicted in **Figure 1** below.
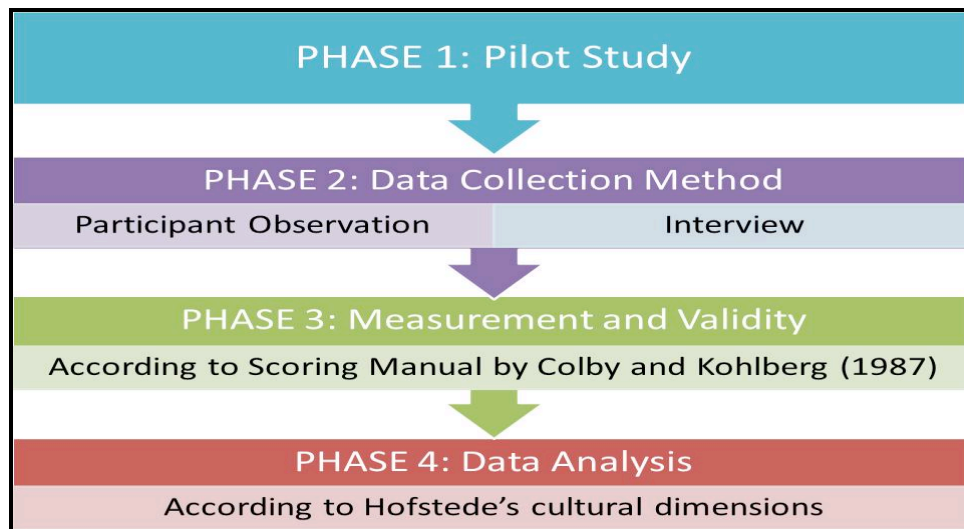
Figure 1 Phases through which the study was undertaken

PHASE 1: Pilot Study

      As strongly recommended by Colby & Kohlberg (1987), a pilot interview of two 13-14 year old students was carried out using MKDs which were audio recorded. On studying the transcription of this recording, it was found that there was a need to clarify the MKDs further with reference to the amount of medicine which one pilot student did not feel was too exorbitant. It also gave insights into the role of researcher as an interviewer and how should a researcher probe so as not to enforce his/her moral judgment onto the case students.

PHASE 2: Data collection methods

      In order to select the case students purposively, Heinz dilemma was discussed and recorded with all the twenty-five students. Based on the student observation and other factors (gender and socio-economic status) five case students[1] were selected. They were then interviewed on a one-to-one basis using MKDs and its related probing questions.

PHASE 3: Measurement and Reliability

      The qualitative data collected in the PHASE 2 above was converted into quantitative scores through substantial amount of calculations and judgments. For this purpose, "Measurement of Moral Judgment, Volume II: Standard Issue Scoring Manual" by Colby and Kohlberg (1987) was used. According to this manual, *Global Stage Scores (GSS),* which indicate the moral reasoning level of each student on the six-stage model, was calculated using a score-sheet. A sample score sheet is shown in **Figure 2** below.

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[1] Two male and three female.

Figure 2 Sample score-sheet

This calculation involved identifying the *chosen issue*[2] for each MKD that the case student justified, which were circled. Hence, in the sample above the chosen issue was life for DILEMMA III, which is the Heinz dilemma. This shows that the case student favored life over law. Accordingly, the responses of students were matched with one of the various *criteria judgment*[3] depending specifically on what was answered by the case student. When a match was not found, a guess score was assigned to them, which is indicated in square brackets with the stage number preceded by the letter "G" as shown in the sample above. This guess score was the closest possible score that could match the *criteria judgment*. Furthermore, if the guess score was not possible, then the response was rendered as 'unscorable response', some of which have been discussed in the following sections.

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[2] Each dilemma had two issues from which the respondent justified his/her choice of one of them. They were life vs. law, moral consciousness vs. punishment and contract vs. authority.

[3] The manual provides a list of probable responses that are numbered and divided as per the level of reasoning of that response. These probable responses are termed as criteria judgment. For further details, refer Colby and Kohlberg (1987).

PHASE 4: Data Analysis

Once the *GSS* was calculated, each response of the case student was analyzed in order to study the influence of culture on it. To do so, the five cultural dimensions proposed by Hofstede and Hofstede (2005) were used. These dimensions acted as a lens to examine the moral reasoning of case students and study the aspects related to twenty-first century Indian culture apparent in those responses. After this analysis, certain additional aspects of context and culture were considered which held the possibility of providing a comprehensive framework of studying moral reasoning of twenty-first adolescents through Kohlberg's model.

Results and Findings

Using score-sheet and scoring instructions prescribed by Colby and Kohlberg (1987), the *GSS* for each case student was calculated as shown in **Table 2**.

Table 2: Global Stage Scores of five case students

Sr. No.	Student Name[4]	GSS (1-6)
1	Student A	3
2	Student B	3
3	Student C	3/4 (Transitional)
4	Student D	3
5	Student Z	3/4 (Transitional)

It was found that there was a difference in the *GSS* for the specific age group of students under investigation as compared to Kohlberg's initial findings. While Kohlberg, Gibbs, & Lieberman's (1987) findings showed that American youth of ages 13-14 years fall under the transitional stage of 2/3, the findings of the current study with twenty-first century Indian adolescents indicated a higher stage (Stage 3 and Stage 3/4).

This discrepancy in the outcome leads one to question the factors that caused such differences. The probable factors that can be identified are as follows:

1. Gender: Kohlberg studied only male candidates in his study. However, Kohlberg, Gibbs and Lieberman (1987) assume that the sequence of stages found in his all-male study will also apply to female samples. This study, therefore, with two males and three females as case students, considered this premise as true.

2. Time: A factor of time might have also affected the differences in the *GSS* as Kohlberg's study was carried out in late 1980s while this study was undertaken four

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[4] Pseudonyms are used to maintain anonymity.

decades later in the twenty-first century. Delaney (2011) claims that changes in time affect the social and intellectual development of human beings. This, in turn, affects their moral reasoning and hence, might have caused the difference.

3. Place: Finally, the study by Kohlberg was done in United States of America while this study was undertaken in Mumbai, India with twenty-first century adolescents. The difference in the *GSS* raises a possibility of national culture having an impact on the moral reasoning of the students.

Considering these three probable factors was useful in studying the first line of enquiry regarding applicability on Kohlberg's model in Indian twenty-first century context. It suggest that even though there were differences in the research context (time, place and case students – size and gender) between Kohlberg's and this study, Kohlberg's model was useful to some extent. It was useful in identifying the moral reasoning level of the twenty-first century Indian adolescents under investigation through well-prescribed scoring instructions. However, the difference in the *GSS* raised question about the influence of culture and context on these responses (as seen from the third factor above) which is analyzed in the following section.

Impact of culture on moral reasoning according to the Hofstede's dimensions

Table 3 summarizes the key findings derived by applying Hofstede's five cultural indices to the responses of the case students to the MKDs:

Table 3 Analysis of responses according to Hofstede's cultural dimensions

Hofstede's cultural dimension	Hofstede's claim for Indian culture	Evidence derived from responses of case students	Sample student responses to Heinz Dilemma
PDI	High	High. However, if applied to specific ethical decision making, this is not the case as evident in the sample response	**Student C:** [Heinz] should consult his father or any elder in his family to arrange for the money required. **Interviewer [I]:** What if they suggest him to steal? **Student C:** Then he should not follow that advice as it is not right
IDV	Low (High Collectivism)	High Collectivism	When Heinz's dilemma was discussed during the class time, Student D was in favor of law against saving the life of the wife as the other students in the class. On the contrary, she opted for saving the wife's life during one-to-one interview. On being asked why she gave two different responses she said that during the class, she did not want to be left out from what her classmates replied and hence, she responded the same as majority of students in the class.
MAS	Moderate	Moderately Masculine and Feminine	**Student Z:** [Heinz should not steal] because it will lead to his dishonor and even his wife will be disappointed with him…
UAI	High	High, wherein	**Student A**: … situations [like the one Heinz was

		students sometimes resorted to religion as a means of avoiding uncertainty as evident in the sample response	facing] do not happen by warning someone beforehand … everything has a reason … No one except God is perfect…
LTO	High	High	**Student Z:** [Heinz] could have a good status in the society. If he follows the right path, nobody would blame his parents, his children would not be ashamed of him, and his wife will be proud [of him] …

Table 3 indicates that the responses of the case students were generally in alignment with Hofstede's claim for Indian culture. Hence, it was evident that there were traces of impact of Indian culture onto moral reasoning of Indian adolescents. However, a question that arises is how far can Hofstede's dimensions be appropriate in studying the Kohlberg's model?

Discussion

While calculating the *GSS* for case students, some student responses were rendered 'unscorable' which did not match any of the *criteria judgment* prescribed by Colby and Kohlberg (1987). One such response given by Student A (as seen in **Table 3** above) was studied under Hofstede's dimension with high UAI. This shows that some responses, which were ignored by Kohlberg's model, were considered through Hofstede's dimensions and hence became subject to further investigation rather than being rejected. Moreover, some responses scored higher than Stage 3/4; however, after overall generalization, these high-level responses were overlooked as suggested by Kohlberg's scoring instructions. Nonetheless, these deviations provided valuable insights while studying the cultural impact on the moral reasoning of the case students. For instance, the response by Student Z (as seen in **Table 3** above) was a Stage 5 response, which showed the attitude of long-term orientation (LTO) according to Hofstede's definition.

To sum up, Hofstede's model provided a useful framework to analyze the moral reasoning of the case students and to study the impact of culture on it. It also took care of some of the responses, which were ignored by Kohlberg's model. However, it was found that the model failed to consider some important parameters specifically with reference to study of moral reasoning of twenty-first century Indian adolescents that are examined below.

Research Implications

While approaching Kohlberg's model through Hofstede's lenses, it was found that as educators following factors ought to be taken into consideration while studying the impact of moral reasoning on twenty-first century adolescents in the light of national culture.

A. Influence of Media and Technology

There were some notable responses by students, which showed an influence of media and technology onto the moral reasoning of the investigated twenty-first century learners. For instance, Student Z used a Bollywood[5] movie phrase such as *'main uske saath saat fere liya hu ...'* (I have married her giving her seven vows [according to Hindu marriage customs]). The student did so to emphasize the reason for saving his wife's life in Heinz's case. Student Z used these phrases to express what she meant by being moral and to justify her ethical decision of stealing.

Some case students even mentioned the use of Google as a means to rationalize their chosen issue for a particular dilemma, which is evident from the following response.

> **Student C**: [Heinz] should not steal. Instead he should "google" and search for a similar medicine which is available at a lower cost in some other part of the world and then find if it is cheaper for him to ship it from there or not.

This response suggests how Student C is using a means of technology to rationalize her chosen decision of why Heinz should not steal. Educators, thus, need to be mindful that twenty-first century adolescents resort to the influences of media and technology in their lives in dealing with uncertainties of moral issues and in justifying their ethical choice. In teaching these students, educators will have to develop learner-centered as well as technologically equipped learning environment where they can thrive to think morally (Jacobs, 2010).

B. Language:

The case students' interviews were 80-85% in Hindi[6], which required translation in addition to transcription. In doing so, it was difficult to translate certain words as those words have different connotations in the English language. For instance, Student A used certain words such as *badnaami* that can have various corresponding meanings in English language.

> **Interviewer:** Why Heinz should not steal medicine?
> **Student A**: *Kyunki uski **badnami** hogi aur wife bhi **khush nahi hogi**[7]* (because for this he will be discredited/dishonoured/infamed/shamed] and his wife will also be [disappointed/ unhappy/ displeased with him])

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[5] Similar to Hollywood in USA.
[6] Native Language of India.
[7] Hindi transliteration.

This and other such responses appeared to support the following proposition of Delaney (2011): 'No two languages are ever sufficiently similar to be considered as representing the same social reality' (p. 137). This means that certain intricacies of a language are difficult to translate to another language, as those are specific to the social conditions and issues prevalent to that language.

Evidence shows that Hindi is one such language which does not have a separate word which maps directly onto the word 'morality' in English and the closest translation leads to a meaning which pertains to the societal norms (Sachdeva, Medin, & Singh, 2011). Since language plays a critical role in the expression of moral reasoning, morality heavily relies on it (Hare, 1952). Therefore, educators must take these nuances of language into consideration, while comprehending the moral reasoning of twenty-first century adolescents who might still be articulating their reasoning in their native language, which is not English.

C. **Religion**:

It is argued from some perspectives that religion and culture are inseparable and that each is interdependent on the other (Parekh, 2000). While studying the impact of culture on moral reasoning, it was found that most of the case students referred to some or the other religious aspect while justifying their moral decision. Following is one such instance:

> **Interviewer**: Why is stealing wrong?
> **Student B:** It is because **God** commands us to follow the right path, [Heinz] is going on the wrong path if he decides to steal …

While studying the impact of culture using Hofstede's model, there was no direct reference to religion mentioned under any cultural dimensions. This was evident from the response given by Student A (See **Table 3**) who concluded his moral reasoning by stating "No one except God is perfect." Hofstede & Hofstede (2005) accredit such responses using religion as a means of avoiding uncertainty to societies where UAI is high. Hence, educators should be cognizant about the religious sentiments of their twenty-first century adolescent students, especially where UAI tendencies are high, while analyzing their moral reasoning using Kohlbergian dilemmas.

D. **Psychology:**

There have been many critiques of Hofstede's model claiming that its findings are based on individual responses and not everyone shares common psychological understanding of the national culture (Mcsweeney, 2002). This factor was foregrounded in the response given by Student B that revolved around home loans as his family was undergoing a financial crisis.[8] This was evident from his responses in which he had mentioned 'house loan' at least four times during the interview and from the fishbone diagram shown in **Figure 3** as alternative solutions for Heinz's (here, Harish's) dilemma.

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[8] Discovered later while having a personal talk with the student.
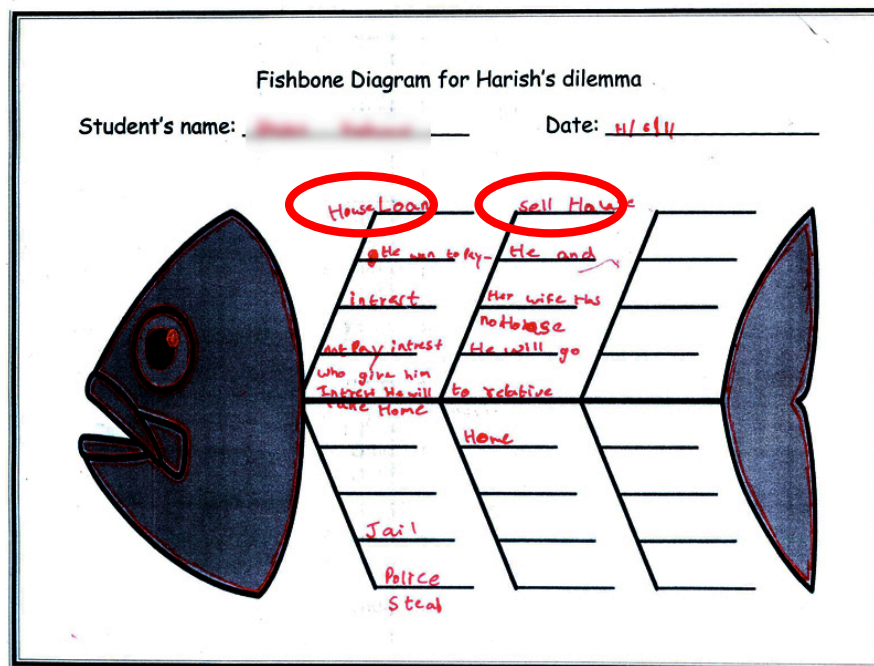
Figure 3 Fishbone diagram by a case student explaining the causes and effects of the possible alternatives for Heinz

This example suggests that while expressing their moral reasons, students might not only be affected by national culture but also gain their insights through some personal experiences or crises which occupy their mind while responding. Miller & Bersoff (1992) claimed that children do not passively receive the cultural norms in an unchanged form; rather they negotiate, transform, or create social or emotional meanings at a personal level through their interaction within this framework. Hence, educators need to be vigilant about the fact that although twenty-first century adolescents exercise different moral reasoning based on their context and culture, they personally reflect on their experiences and psychologically interpret the world around them to articulate it.

To sum up, one can argue that if Kohlberg's model is studied with respect to the culture and context in which it is investigated, then examining it through the lens of Hofstede's indices can prove to be an interesting study. However, for this framework to be more comprehensive, educators must consider the factors of technological and media influences, language, religion, and psychological concerns while investigating moral reasoning of culturally diverse twenty-first century adolescents.

Conclusion

The results of this study indicate that Kohlberg's model is applicable in the twenty-first century Indian context if the dilemmas are contextualized. However, the findings were different from that of Kohlberg's study. To find the reason for this difference, various factors were analyzed, specifically focusing on culture and context. This analysis led to justify the assumption as true that there is a relationship between moral reasoning of adolescents and their culture.

Using Hofstede's cultural dimensions, the student responses were analyzed that showed characteristics of twenty-first century Indian culture and brought some responses under its scanner which were rendered 'unscorable' by Kohlberg's model. Furthermore, some refinements for Hofstede's dimensions were discussed by suggesting the inclusion of factors such as media and technological influences, native language, religion, and psychological concerns. These refinements, if taken into consideration by educators, might provide a better lens to study the impact of culture on the moral reasoning of twenty-first century adolescent learners. Thus, it will help educators to equip these learners with an important twenty-first century skill as proposed by Gordon and Heincke (2013).

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Academics Behaviors to Foster Students Entrepreneurship in Universities: The Way of a Little French University

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Abstract

French universities, with the backing of the Ministry for Higher Education, are increasingly involved in business awareness and training programmes. These actions have a twofold aim: to transmit knowledge and also to create a taste for action. To that end, this paper asks questions about how to stimulate the spirit of enterprise in students. Some of the thinking around these questions is certainly linked to the way the university community identifies the issues and approaches around entrepreneurship. So we will give thought here to how university staff view the incentives universities have created for setting up or restarting businesses and how to improve their effectiveness.
We will look notably at the example of the University of Corsica. A qualitative study has been launched to produce a shared reference paper identifying opportunities for improvement and giving impulse to an innovative and unifying entrepreneurial project to be set up within universities.

Keywords: entrepreneurship, university, students, graduates

Introduction

Many research studies consider that the level of entrepreneurship in France is low compared to other countries (Fayolle, 2004; Boissin et al. 2007; Acs and Szerb, 2010; Ernst & Young, 2011; Degeorge and Fayolle, 2011). Ernst & Young's 2013 Business Barometer, which evaluates and ranks "entrepreneurial ecosystems" in the twenty G20 member countries, notes that France, despite having made significant progress, still has a poorly developed entrepreneurial potential.

Higher education graduates, because of their training and methods of work, are obvious candidates for the adventure of setting up or taking over a business. However, a study undertaken by the 0PPE organisation in 2011 shows that even if students generally have a favourable attitude towards business and a positive image of entrepreneurs, few take the plunge. Aversion to risk, fear of failure and a lack of confidence certainly discourage their spirit of enterprise. Young graduates, put off by the crisis, economic uncertainty, tax policies and the negative influence of their family and friends, are reluctant to set up their businesses immediately (Didaxis consulting group, 2012). If 48% of young graduates wish to launch their own business, fewer than 3% of them actually do so.

And yet, with high levels of unemployment, even for young graduates, developing the spirit of enterprise in France by releasing energies and encouraging talents remains more than ever a challenge to be taken up.

In a situation like this, it seems legitimate for universities to take up the issue of entrepreneurship, notably by asking this question: how do universities give their students a taste for business? Some of the thinking around the subject certainly corresponds to the way the university community identifies the issues around entrepreneurship and what action to take.

So we will have to think about the way university people involved in this initiative view the methods and tools created within universities to set up, restart and develop businesses, and how their effectiveness might be improved, notably by looking at the case of the University of Corsica (Appendix 1).

We propose indeed to interview members of the University of Corsica who are working on the subject of entrepreneurship. We aim to create a shared reference paper, enabling future paths to be explored, changes to be proposed and joint actions to be undertaken. Thinking around the University's student enterprise education programme, the type of training, the impacts for business in Corsica, etc. will be mentioned as paths to be explored beyond the current study.

We are conducting our research in two phases. Initially, working from what has been published, we will look at how universities have taken up the entrepreneurial approach and the main initiatives they are taking to promote entrepreneurship A qualitative study based on the University of Corsica will complete this review of literature. We can then draw up an inventory of the means deployed to sustain entrepreneurship and see how we can improve on what we have. We will present and comment on this grassroots survey (Appendix 2).

1. Entrepreneurship in higher education: the growing role of universities

Entrepreneurship can be broadly described as: "*starting from an idea, making use of an opportunity within a dynamic organisation which has been created from scratch or restarted and then developed by an individual or a group of people which then significantly evolves in a process that creates new value or stops existing value being wasted. [...] To be an entrepreneur is above all to be part of a continuously evolving and forward-facing project with a clear strategic vision.*" (Emin and Paturel, 2007). So we observe that entrepreneurship is not necessarily restricted to the creation of a business but that the concept also covers the takeover and development of an existing business. In this way the idea is close to the vision put forward in the "entrepreneurship and the spirit of enterprise"[1] skills framework (2010). While keeping in mind that the factors we have just mentioned do not necessarily call on the same basic qualities, in this paper we will deal with them together. That is because our aim is to identify the means to encourage and even stimulate every form of business activity within universities. The spirit of enterprise, starting up new businesses and taking over existing businesses are examples. (Degeorge and Fayolle, 2011).

At present, French universities seem to be launching themselves into a sort of "enterprise marketing", to the extent that a large majority of them show a desire to incorporate the entrepreneurial approach into their establishments, through teaching modules, awareness days, specialised training, business incubators, etc. Entrepreneurship and its application to higher education is not as far advanced as in business schools and colleges of engineering (Fayolle, 2011). Nevertheless, over recent years, French universities have made considerable efforts to lessen the gap in this area.

The entrepreneurship plan launched in 2009 stipulates that schemes to develop the spirit of enterprise in students should take three directions:

- The establishment of student enterprise centres
- The development of Junior Enterprise initiatives within each university
- The appointment, within the majority of universities, of officially designated business contacts

The will to better integrate the enterprise approach in higher education is certainly not contrary to the idea of the "entrepreneurial university" put forward by Clark in 1998. The concept notably defines a university with an organisation conducive to an enterprise culture and whose staff and research programmes interact more closely with society outside. A university which has a greater degree of administrative and financial

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[1] This framework is part of the master agreement of June 2010 between the employers' federation (MEDEF), the Ministry of Education and the Ministry for Higher Education and Research and the framework convention of November 2010 between the MEDEF and the Conference of University Presidents (CPU).

independence, which is more accountable for its actions and which is less reliant on public funding. Universities will thus have to find a balance between their traditional culture and the culture of the market (Rinne and Koivula, 2005, Shattock, 2005). The passing of legislation on the liberties and responsibilities of universities (LRU) is obviously not unrelated to this new mission conferred on the French universities.

Against this background, for universities to adopt a business approach and take action to stimulate the spirit of enterprise in their future graduates seems an integral part of the new vision of the university.

1.1.   Teaching initiatives

The "entrepreneurship and the spirit of enterprise" skills framework introduced on 24 November 2011 urges the creation of business awareness and training modules throughout the bachelor-master-doctor (LMD) curriculum.

In reality, considerable efforts have been made to innovate teaching methods within universities so as to offer interactive, practical and effective courses (Fayolle and Verzat, 2009; Carrier, 2009). Students say, for example, that they react more positively to a startup simulation and testimonies from entrepreneurs than to courses as such on how to set up a business (Boissin et al., 2007). So it is important to give a more modern look to business training in higher education so as to make students better aware of how to set up or take over a business. In addition to teaching focused on how to write a business plan, solving case studies and on business games and simulations, other educational innovations have emerged to enrich this training. Without being exhaustive, some of them are worth citing. Surlemont and Kearney (2009) suggest applying enterprising teaching methods to stimulate a taste for enterprise. This approach has points in common with other teaching approaches such as active learning, problem and project focused learning and inductive methodologies (Verzat, 2011b). Enterprise education is based on four principles: students have responsibility in the learning process; students learn through direct experience; students work with others; learning is reflexive, that is to say students use experience as lessons for the future. This innovative learning approach may appear destabilising for the student, but also for the teacher. To stimulate this kind of approach the culture of the establishment must be incentive-based. Educational innovation of this sort therefore changes thought processes and leads to new teaching methods but can also create resistance (Verzat, 2011b).

Other original and undoubtedly more experimental teaching methods seem to be emerging. We can mention "drift" inspired by "Situationist International", a way of putting participants in a situation in which they can create, imagine and look differently at reality and its underlying opportunities (Bureau and Fendt, 2011). To get students to live real business situations is a complex task and the "drift" concept tries to "*simulate such situations: no clearly defined problem, great uncertainty, fortuitous circumstances, possibility of failure, conflict, a need to create resources, to be creative…*"(Bueau and Fendt, 2011, p. 94).

In addition to education, other actions are needed for business training to be improved.

1.2.   Initiatives and actions complementary to education

French universities are taking many actions, organised notably around interviews with entrepreneurs, competitions and measures to support student projects.

As recent examples, we can cite the "Incontri" days of the University of Corsica in 2012, the first "Enterprise Special" day at Paris Dauphine in February 2013, the enterprise day at the François-Rabelais University of Tours in April 2013, the participation of the University of la Rochelle in the "Creative Universities" event in June 2012, the business startup competition at the University of Paris 13 in December 2012, the opening of the Peego startup at Dauphine in April 2012, etc.

Still more ingeniously, Dervaux (2011) describes the experiment set up at the Catholic University of Lille where a "Live my Life" event has been launched with the aim of bringing together the two worlds of teaching and business. Based on the television show of that name, teacher-business manager couples are formed. Each shares a day in the life of the other, and so discovers the situation and concerns of his or her partner. Between 2006 and 2010, 90 such partnerships were created. The experiment showed how rewarding these meetings were and how they enabled links based on trust to be formed. The underlying idea beneath this kind of initiative is that to produce innovators, the teachers upstream have to be made even more aware (Dervaux, 2011).

We can also mention the Junior Enterprise project which can be considered as a method of business initiation and falls into the "project-based learning" category (Barrès et al., 2011). The purpose of the Junior Enterprise project is "*finally not for the students to set up a business, but rather for them, through the project on which they are working, to develop what we can call business skills*" (Barrès et al., 2009, p. 90).

We can also point out the part played by university foundations. They also help make higher education graduates business-aware because they actually invite enterprises into the university.

Finally, it can also be seen that research into entrepreneurship is more and more common, as can be seen from the increasing number of theses produced on this subject between 2004 and 2007 (Messeghem and Verstraete, 2009) and between 2008 and 2009 (Fayolle et Messeghem, 2009).

1.3.   With what perspectives?

Educational actions and initiatives encouraging entrepreneurship within the French universities are growing. Among them are incentives for researchers to set up their own businesses in order to create value from their work (Schieb-Bienfait et al., 2011). These actions and initiatives have the common aim of breathing the spirit of enterprise into students and giving them training in business. This seems to have a real usefulness because students become exposed to the world of business (Arlotto et al., 2012), develop a business consciousness (Fayolle, 2004) and become more likely to create businesses themselves (Boissin et al., 2007).

However, further efforts are needed to encourage business activity. In particular, we have to:

-        Continue to encourage students to follow the enterprise path and try, perhaps in parallel, to lead them into the process of starting or taking over a business and to give them support and easier access to financial tools (Degeorge and Fayolle, 2011).

-        Take account of "*cultural, institutional and situational factors"* (Fayolle, 2011, p.157). Business training thus needs to become more "customised" and reflect the political, economic and social aspects of the region surrounding the university.

-        Take into account the time dimension and the attentiveness effect (Boissin et al., 2009). Students indeed appear to become more conscious of the obstacles to starting up a business the closer they are to the deadline, which corresponds to their entry onto the job market.

-        "*Target more effectively*"(Fayolle, 2011). Fayolle and Gailly (2009) show that the impact of a 24 hour programme of initiation to the enterprise is all the stronger if entrepreneurial willingness, linked to previous business exposure, is low, and vice versa. In this case, it is interesting to use the level of entrepreneurial willingness as an indicator to profile students and thus give them better guidance (Fayolle and Gailly, 2009).

-        Increase partnerships between universities and the enterprises of their surrounding areas so that business initiatives become more effective. This interaction between universities and businesses is mutually rewarding and raises the question of the role of universities in developing their regions (Kitagawa, 2005).

-        Attempt to create a set of references (Lima et al., 2011) or a common framework as a support for objectives in terms of teaching, evaluation, skills to be acquired and training programmes to be set up (Verzat, 2011a). It could, for example, take the form of a compilation or showcase of best practices (Hofer, A. *& al.,* 2010) and feedback to improve communication and stimulate innovation in the teaching of this subject.

Lastly and more generally, going beyond the subjects discussed above, the university can only become meaningfully involved in business and play its full part in communicating, supporting and raising awareness if there is strong regional, social and political commitment (Kitagawa, 2005).

Leading on from this very informative review of publications, it seemed pertinent for us to take a concrete example, that of the University of Corte, and look at it through the eyes of the teachers, research staff and administrative managers involved in launching business initiatives.

2.   Methodology and main results of the qualitative survey

This section presents the different tools associated with the business approach deployed within the Pascal Paoli University as well as the possible means of improving their effectiveness. To do this, and to pinpoint the motivating and restraining effects on the actions undertaken and identify the potential for improvement, we had to conduct a qualitative survey involving the personnel of the University of Corte working on the promotion of entrepreneurship.

2.1.   Survey methodology

To illustrate our point, we chose the University of Corsica, which for the last four years has had an educational and institutional programme which is worthy of attention (Appendix 1). Additionally, in Mediterranean areas, there is a cultural particularity which can have an effect on the spirit of enterprise (Marchesnay et al., 2006). According to Orsoni (2003), the lack of entrepreneurship in Corsica is linked to the absence of a business culture on the island due notably to the strong attraction of the public sector, to political errors and the existence of monopolies. However, recent figures on entrepreneurship in Corsica seem to show that the situation has markedly improved. Thus, in 2010, there were 123 business startups for every 10,000 inhabitants, as against 76 for every 10,000 inhabitants for all regions of France with the exception of the Ile de France[2].

In such circumstances, to instil the entrepreneurial approach at the University of Corsica could represent a major advantage for economic development.

A qualitative survey was conducted with University of Corte teachers, managers and administrators working on the issue of entrepreneurship. The methodological summary used in this approach is outlined in Table 1 and Appendix 2.

Added to the review of literature, this qualitative survey helps give a better understanding of existing business initiatives within a French university.

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[2] APCE, 2012

Table 1-methodological factors in the qualitative survey

Sample
▪ Identify the 20 university personnel working on the issue of entrepreneurship ▪ Of the 20 people, 15 were interviewed while five were absent during the survey period from 10 April to 30 May 2013.
Interview guide
▪ An interview guide was created around five topics: ➢ The interviewee's career path ➢ Business teaching at the University (awareness, specialisation, development of business behaviours) ➢ How much those involved in teaching and training know of institutional government and university regulations, tools and aids on the subject ➢ Identifying the factors enabling or inhibiting the spread of the business spirit at the University of Corte ➢ A tentative new teaching approach to entrepreneurship
Survey method
▪ Location: University of Corsica ▪ Collection method: handwritten notes, fully recorded
Processing method
▪ Data processing: manual and TROPES[3] software package

2.2.   Main survey results and areas of improvement

The written statements obtained from the semi-structured interviews are an important source of information. Subjected to lexical analysis, they show how the business awareness tools are perceived, what are the incentives and inhibitors and how the tools might evolve.

2.2.1. How entrepreneurship is expressed and represented

Necessarily, the way the experts view the topics discussed has an influence on what they say. So it seemed to us important to highlight the vocabulary used by the people interviewed.

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[3] The TROPES software package was used here to extract the concepts from the reports, to create associations between concepts and to identify the groups of meanings most often used and their characteristics. This allows a semantic and pragmatic approach and ensures that the interpretations which are made are sound thanks to automated analyses (Ghiglione et al., 1998; Trébucq, 2006; Barès F., Houé T., Jacquot, 2011).

The speaking style tends to be argumentative (45% factive verbs) and factual (50% objective adjectives). "*Entrepreneurship is a willingness to set up or take over a business, to manage people and resources to attain an objective*" (Responsible, Professional Degree in Entrepreneurship)".

Taking charge using "I" represents 28% and "we" 22.2%. This can be construed as strong personal involvement with regard to the subject. However, we can detect doubt, which illustrates the difficulty of making students business-aware. Indeed, if universities are conscious of the issues behind this initiative, there are still doubts concerning the best way to make an impact on students. "Maybe we should try a change of approach. Maybe think about an approach which is more customised and which therefore better meets local circumstances. (Head of Institute of Business Administration). Table 2 shows the many different viewpoints of the 15 main players involved in business awareness initiatives within the University

Table 2 - Vocabulary used by personnel involved in business awareness at the University of Corsica

teaching	0551	purchase	0026	development	0015
enterprise	0275	vision	0024	will	0015
creation	0173	system	0024	responsibility	0014
knowledge	0093	finance	0024	aid	0014
Corsican	0081	place	0024	image	0014
problem	0075	advice	0024	employee	0014
time	0072	qualification	0022	culture	0014
work	0071	district	0021	success	0013
thought	0051	issue	0020	child	0013
people	0049	professional	0019	quantity	0013
builder	0048	policy	0019	fear	0013
tool	0047	research	0019	month	0013
organisation	0041	dimension	0019	wealth	0013
relation	0041	information	0018	confidence	0013
managing	0041	speech	0018	communication	0012
directing	0041	mission	0016	life	0011
intelligence	0039	insecurity	0016	management	0011
reasoning	0033	institution	0016	marketing	0011
economy	0033	lack	0015	construction	0010
network	0031	trade	0015	start and finish	0010
cognition	0027	choice	0015	family	0010
age	0026	solidarity	0015		

The thinking behind business awareness is shown here by a characteristic vocabulary which is recurrent and largely shared: "teaching", "enterprise" and "creation" are the naturally dominant generic terms. The logic of awareness is also described by typical, recurring word associations. The generic terms which are naturally associated are, most frequently, "creation > enterprise", as well as "university > enterprise" and "project > creation" (Appendix 3). This result shows that the very first idea associated with enterprise is creation, with a favourite tool which is teaching. We can note that the size of an existing business to be developed is not instinctively mentioned by the speakers and that the other factors complementing entrepreneurship training are only

mentioned secondarily. So, for example, the word "network" is in 20th position. The university players must therefore be made more aware of business in all its forms so as to be more effective in deploying their actions.

2.2.2. Towards sustained and supported active teaching methods

Efforts are being made in education. Business teachers are using learning methods in which students act out their own training such as business role plays, also called serious games, business plans even virtual enterprise creation.

Experts emphasise that the main aim of this kind of teaching is to demystify, to open student's minds to enterprise and make them want to find out more. (see Box 1)

Box 1 - Verbatim statements on the principal teaching objectives

"Access should be opened to courses on personal development and confidence boosting… France is a country where people are terrified of failure. In fact, this perception is largely exaggerated compared to the actual risks. It is true that 50% of businesses do not last more than five years, but these same businesses are often bought up. Moreover, closure is often due to bad relations between the partners" (Responsible, Professional Degree in Entrepreneurship).

"Through business awareness, we have to get across the idea that to be an entrepreneur is a kind of intellectual freedom. I am building my own future" (Head of Institute of Business Administration).

"We have to make all students of the University business-aware and above all make it clear that to start up or take over a business is open to all" "(Vice President, Career Development).

"To encourage business-awareness is to give students drive… It is to offer them tools to make them less afraid of business (Deputy head, careers advice service).

According to the persons interviewed, the effectiveness of business teaching at the University of Corsica is dependent on various initiatives (Box 2 and Figure 1) such as:

- The establishment of an internal discussion process.
- The creation of an "ethical" business training programme conducive to healthy and effective economic development.
- The introduction of original and relevant training programs for business awareness teachers.
- Innovation becoming the main vector of business-linked education. The issue is to rethink education to make it as attractive and interactive as possible, with approaches such as project-based learning which are far removed from "pencil and paper" methods. These interview results allow us to establish a link with the work undertaken by many researchers citing the necessity of innovative teaching in business training (Fayolle and Verzat, 2009; Carrier, 2009; Surlemont and Kearney, 2009; Bureau and Fendt, 2011, Verzat, 2011b).

-    The development of customised and situation-based education tailored to local circumstances. According to the interviewees, teaching must be organised around a "*territorial*" identity, a "*sort of DNA*". The works of Fayolle (2011) reinforce this idea.

-    Boosting self confidence through the teaching given.

-    The deployment of business-awareness education in all departments of the University. Business-awareness is recommended in all disciplines, from the first year onwards, with the possibility of ongoing programmes for some courses (Box 2). This result corresponds to the recommendations of the "entrepreneurship and the spirit of enterprise" skills framework (2011).

Box 2 - Verbatim statements about educational methods
linked to the entrepreneurial approach

"There should be a real approach to construction around entrepreneurship. We should agree on the directions we want training and research to take (Head of Institute of Business Administration).

"More widely, universities are creating a new dimension which is really more a matter of regional development with corporate and social responsibility" (Head of department, University Foundation).

"It's less a question of enterprise but of how you go about it, what you put into it; the creative, ethical and political content too. Through what you do, you also define society… For me, what's missing is not so much the spirit of enterprise as the political vision of entrepreneurship. For me, entrepreneurial actions do not all carry the same weight" (Chief Secretary).

"We must develop project-based education and therefore train the trainers". (Head of university training centre).

"We must innovate. We must break free of the conservatism of universities. We have to imagine innovation in education" (Head of University evaluation unit).

"In business, customisation is important, it's even a major issue because a good business leader must have technical skills and a wide range of management skills" (University business education programme manager).

"… But if we don't give them business awareness upstream, it's too difficult afterwards, when they get to Masters level, to talk about business creation"(Vice President, Career Development).

Figure 1 - "University of Corsica Enterprise Education" teaching project
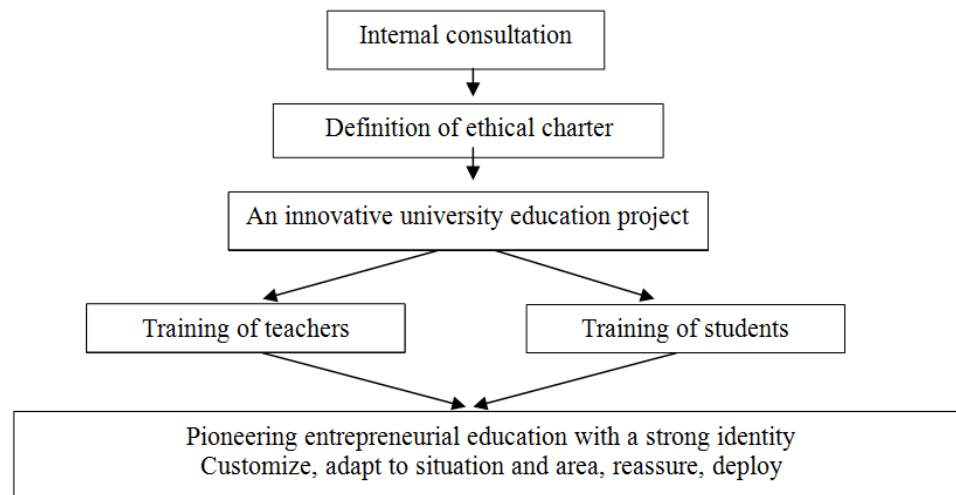
2.2.3. The necessary organisation and sharing of actions parallel to education

The actions launched by the University of Corsica to encourage the spirit of enterprise have increased, especially since 2009 (Appendix 1).

These actions are aided by the University Foundation, Junior Enterprise and apprenticeships and vocational training schemes (Box 3) which are notable stimulating factors.

Box 3 - Verbatim statements about the factors stimulating entrepreneurship

"Apprenticeship schemes could compensate the lack of experience which is a restraining factor for many students. This could show students the enterprise and sometimes prepare them to take over a business…" (University business education programme manager).

"On the face of it, I would say that apprenticeship is not the initial stimulus to business creation… On the other hand, it does take the lid off business and over time could change the student's vision of the enterprise" (Vice President, Career Development).

"Apprenticeship is a factor encouraging the spirit of enterprise, enabling more rapid development of practical skills such as project management and team work… It is one of many signals sent to students to create a climate of confidence and an environment favourable to entrepreneurship" (former Junior Enterprise chairman).

"Through apprenticeships and work placements, we gain a vision of the enterprise. It is a good ways of transmitting business awareness information and therefore an understanding of entrepreneurship… Vocational training and vocational training centres are factors to take into consideration when setting up enterprise centres" (Deputy Head, Careers Advice Service).

"Students begin to see the Foundation as an aid, a value chain leading to the accomplishment of projects… Junior Enterprise is equally important because it helps create a taste for business" (Foundation Director).

> *"There are initiatives set up by the University and to my mind there are at least two levels: the University Foundation, the vocational Degree in Entrepreneurship, and the Masters, particularly in the Institute of Business Administration"* (Head of Enterprise and Administrative Management department).
>
> *"Today, the Foundation and the Vocational Training Centre are important aids in publicising entrepreneurship and showing and popularising this image of the enterprise"* (Head of Institute of Business Administration).

Beyond business understanding, the actions undertaken within the University of Corsica aim to create solid links between the University and businesses and to work on the image of the entrepreneur. *"Increasingly, we must develop images of business people who have succeeded in highly innovative areas"* (Chief Secretary to the President of the University).

Analysing the interviews also enabled us to highlight the key success factors in creating the business ecosystem at the University of Corsica (Table 3):

-       Sharing a new vision of the role of the University along the lines of the thinking cited by Kitagawa in 2005.
-       Building a *"shared vision"*, the internal players and those from outside such as institutions, professionals, associations etc. using the same approach. The works of Dervaux (2011) and Kitagawa (2005) mentioned above largely support this view.
-       Identifying the enterprise players and creating firm networks.
-       Placing the spotlight on the job of the entrepreneur.
-       Training university *"field staff"*.
-       Formalising the actions taken.
-       Creating a dedicated business space such as an enterprise house or enterprise centre to help support student entrepreneurs more effectively. This idea can be found in the works of Degeorge and Fayolle (2011).
-       Coordinating and communicating around the actions taken.

Table 3 - Key success factors in creating a business environment
within the University of Corsica

Strategic factors	
➢ New vision of the role of the University ➢ Jointly built by the internal and external players	*"I believe now that we should share our viewpoints, that we should define a rather more collective, shared vision that we experiment and test together, and that we should share experience and build a common organisation (Chief Secretary to the President of the University).* *"There is an issue of entry into the professional world, but also of enriching the University through such practices. The chief mission of the University is to accompany and to adapt to*

	changes in society" (Head of Vocational Training).
Tactical factors	
➢ Identify the entrepreneurial players and create firm relationships ➢ Focus attention on the job of the business leader ➢ Train University personnel ➢ Formalise the actions taken	*"We need to create a bond between outside experts and University staff to supervise projects after university training" (Head of vocational training centre).* *"In my opinion, we should no longer work on the image of different sectors of the economy but on the image of the entrepreneur" (Head of Institute of Business Administration).* *"We need an enterprise culture. We must become familiar with business organisations and understand how to talk to them. We must train our staff and young people who are exposed to business" (Head of Institute of Business Administration).*
Operational factors	
➢ Create a designated collaborative workspace dedicated to enterprise and student project support. ➢ Coordinate and communicate on actions taken	*"We need to formalise the link between the University and business, and more practically, why not create an enterprise house?" (Head of department, University Foundation).* *"There has to be a clearly identified space for all users - students, university staff, people from outside." (Head of department, University Foundation).* *"We need to show what we are doing, setting up training which perfectly matches the economic, social and sporting environment. The modern university is embedded in its local area while having an international reputation." "(Vice President, Career Development).*

The results obtained from this survey show that the issues of content, the ways and means of business teaching as well as the actions taken within the University of Corsica needed to be raised. Indeed, given the variety of practices, and especially the growing awareness of the changes and innovations wished for, it was becoming vital to take stock of the situation and identify future perspectives.

Conclusion, Discussion, Constraints and Perspectives

Higher education, through its commitment to "entrepreneurship" can reassure, incite and stimulate young graduates to start up or take over a business activity. The 2013 Enterprise Conference concluded that it was necessary to *"extend enterprise education in all its forms in all areas of higher education"*. So it seems essential within

universities to strengthen the educational content of enterprise teaching, to widen the experience of student enterprise centres and to provide support for students establishing their own businesses.

The ideas developed in the review of published material have highlighted generalised observations or situations and opportunities for changes to the enterprise education project.

Going beyond the review of literature, our research involved defining an experimental approach for Corsica. We proceeded by interviewing heads of teaching departments and administrators working on the subject of entrepreneurship within the University of Corsica having close links to the local environment. This enabled us to put together a manual of educational methods for enterprise teaching developed at the University of Corsica, but also to better understand the viewpoint of experts involved in the field of entrepreneurship. From this foundation we were able to establish a robust enterprise education project and identify the key success factors. The present article suggests some ideas for discussion and some potential improvements in the way business is approached in universities.

At the teaching level, the educational practices applied within the University of Corsica are worth reinforcing with creative methods such as "enterprising education" (Surlemont and Kearny, 2009) or active learning (Verzat, 2011b). All the difficulty lies in simultaneously giving students theoretical understanding and practical know-how. So we need to think first of all about an awareness programme for all students, then about specialisation at the student's initiative and finally about support for those who decide to make the leap. The teaching method should reflect these aims and should contain modules on business ethics.

The success of enterprise teaching courses is strongly dependent on the deployment of awareness and teacher training programmes. They could take the form of training seminars with the purpose of helping teachers acquire interdisciplinary understanding and be a means of bringing together all the participants involved in enterprise training. This programme could be completed by immersion days in local businesses. We could ultimately imagine the compilation of a "best practices" guide. This could be organised around a network, on the principle of economic intelligence where people involved in business awareness from inside or outside the University could exchange their practices and share their knowledge and "tips". This network could consider all subjects "from the idea to the project" such as financing, establishing the business plan, marketing, etc.

With regard to the actions taken by the University other than teaching, it seems to be the right moment to officialise the link between the University and business which is essential for better visibility and to formalise the different actions taken by the University. On top of that, we should establish a jointly created enterprise approach and define an "identified and identifiable" point of entry. We can cite as examples the University-Enterprise Council which is being set up, the launch of a PEPITE project[4] or the creation of an enterprise house. These entry points could enable supporting

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[4] PEPITE projects (Student Centres for Innovation, Transfer and Enterprise) aim to spread the enterprise and innovation culture to young people in higher education and help students and recent graduates wishing to become entrepreneurs to make the leap. To date, 23 projects have been certified.

activities to be set up and could be a means of observation and analysis of business-related information on project support, monitoring, achievements and perspectives. Beyond the training for university personnel such as enterprise teacher training days, enterprise "discovery days", etc., this initiative can only exist and survive if it is shared at the same time by the University and local institutions, private enterprises, associations and all those who contribute to the economic fabric of the region.

All experimental research has its limits and needs to be completed.

The inherent limits to this study are related to the choice of a region with a strong cultural imprint (Orsoni, 2003, Marchesnay 2006) and could thus lead to local particularities even if the enterprise approach within the University seems fairly close to what is done in other universities.

In addition, because of the qualitative local survey, our results could not be generalised in all other universities. So this study has to be extended to other universities in order to confirm or not our suggestions for improvement.

It also seems advisable to carry out a study of the student population so as to verify the possible correlation between enterprise training initiatives and their impact on the attitude of students towards entrepreneurship. The purpose will be to reflect on business intention as an indicator of the effectiveness of the schemes with students.

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Appendix 1 - University of Corsica figures and key dates

Foundation	1765 then reopened in 1981
Students	4300 students of over 60 nationalities
Degrees	More than 100 degrees awarded by 8 faculties: ➢ *3 training and research units* ➢ *5 institutes and schools* ➢ *4 subject areas: Law, economics, management; Art, literature, languages; Human and social sciences, science, technology, health*
Personnel	320 teaching/research staff 580 staff from outside 210 administrative personnel 160 partner universities 200 doctoral students
Research	3 CNRS approved units: UMR-CNRS n°6134 "Environmental science" (SPE), UMR-CNRS n°6240 "Places, Identities, Spaces, Activities" (LISA), Fédération de Recherche CNRS n°3041 "Environment and Society" (FRES) 1 Technology Research Team (ERT) 8 research framework projects
Entrepreneurship – key dates	1998 Centre for Research and Technology Transfer (CRITT) established 1998 Enterprise Innovation Institute established 1998 Diploma in Entrepreneurship created 2004 Regional Technology Incubator established 2004 Professional Degree in Entrepreneurship created 2011 University Foundation established 2011 "Junior Entreprise" set up 2013 Specialised entrepreneurship research team formed 2013 Sapè project[5] launched
Some recent actions	Testimonies from some outstanding Corsican entrepreneurs Ideas competitions (Enterprise speed dating, Lingua azzione[6], "U Premiu" of the CUSTRUI programme

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[5] The e Sapè project is a European distance learning programme managed by the University of Corsica with a business awareness component.
[6] A competition for ideas. Students have 24 hours to set up a business virtually in the Corsican language.

Appendix 2 - List of interviewees

	Name	Status - Responsability - Mission
1	*Bernard-Léoni, Vanina*	PRAG Director of the University of Corsica Foundation Responsible for strategic economic partnerships
2	*Bisgambiglia, Paul*	University professor responsible for the degree in physics
3	*Calendini, Jean-Baptiste*	PRAG Chief Secretary, University of Corsica
4	*Castola, Vincent*	University professor Vice President, career development Director of the Careers Advice and Professional Employment Centre (POIP)
5	*Costa, Jean*	University professor Director of the Doctoral School (ED)
6	*Cristofari, Christian*	University professor Director of the University Technical Institute (IUT) Former head of the Enterprise Creation Institute (ICE) and creator of a business incubator
7	*Fabiani, Thierry*	Senior lecturer at the University of Corsica In charge of a business incubator at the Leanardo da Vinci School Head of a consultancy firm
8	*Furt, Jean-Marie*	MCF Head of the Institute of Business Administration (IAE) at Corte
9	*Graziani-Invernon, Sylvie*	IGR Deputy Director POIP
10	*Lameta Nathalie*	PRAG Responsible for Professional Degree in Entrepreneurship (LPE)
11	*Micaelli, Paul-Toussaint*	Business manager, Honda Former head of ICE
12	*Ottavi, Pascal*	University professor Dean of the Faculty of Literature Lingua azzione 24 h competition
13	*Riolacci, Cécile*	MCF Sciences Head of Vocational Training
14	*Ristori, Sébastien*	Doctoral student Financial Director, Carrefour Ajaccio Instigator and former president of the Junior Entreprise association
15	*Romani, Paul-Marie*	University professor President of the University
16	*Storaï, Christophe*	MCF Economics Head of the University of Corte Apprentice Training Centre (CFA)
17	*Terramors, Patrice*	MCF Management Head of the Enterprise and Administrative Management department at the IUT
18	*Tihay, Virginie*	MCF Physics

		Head of the School of Engineering
19	*Tomasi, Colette*	IGR
		Head of the evaluation unit
20	*Vautier, Jacques*	University professor
		Sapè project manager

Appendix 3 - Examples of word associations

(creation > enterprise)	**52**	(entrepreneurship > university)	6
(university > enterprise)	**15**	(advice > enterprise)	6
(project > creation)	**14**	(awareness > entrepreneurship)	6
(entrepreneurship > creation)	10	(creation > wealth)	6
(management > enterprise)	10	(professional > entrepreneurship)	6
(student > project)	10	(awareness > enterprise)	6
(student > enterprise)	10	(world > enterprise)	5
(Foundation > university)	9	(project > enterprise)	5
(entrepreneurship > enterprise)	8	(student > course)	5
(creation > takeover)	7	(training > creation)	5
(teaching > entrepreneurship)	7	(actor > university)	5
(teaching > student)	7	(student > entrepreneurship)	5
(enterprise > student)	7	(training > entrepreneurship)	5
(advice > university)	7	(creation > takeover)	5
(enterprise > creation)	7	(enterprise > project)	5
(student > creation)	7	(knowledge > enterprise)	5
(entrepreneurship > student)	6	(approach > creation)	5
(child > enterprise)	6	(approach > entrepreneurial)	5
(debate > work)	6		

The Impact of Formative Assessment on Students' Own Learning and Development During Practice Learning

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Abstract

Learning in the workplace allows students to acquire a range of skills that contribute towards their employability, besides making them fit for purpose and practice. Students are now being assessed for the competencies they develop during practice. In this regard, the role of mentors is important. Mentors generally perform formative assessment of students mid-way during the traineeship period. For students, formative assessment aims at providing constructive feedback which contributes to making students progress well. To date, there is enough evidence (Nicol and Owen, 2008; Nishigaki, 2008; Merrill, 2008) to indicate that formative assessment can contribute significantly to the learning experiences of University students. While this type of assessment is well adapted and applied in the school learning environment, its application within practice learning is still being researched. This is mainly due to the fact that practice learning is socially shared among the staff at the workplace and involves the use of tools with contextual reasoning making formative assessment not a straightforward task. At practice settings, knowledge and skills are blended together and cannot be separated as in the school environment. Yet, it is considered as an important activity in fostering growth in learning capabilities.

This study sought to explore the impact that formative assessment has on practice learning. For this, a survey was conducted to examine the perception of students and mentors on how formative assessment enhances the development of students' own learning and development. The study reveals that formative assessment makes a significant contribution towards the acquisition of knowledge and skills in practice learning. It helps in enhancing critical self-reflection skills and foster learners to make their own interpretation as well as provides opportunities for students to set future targets.

Keywords: Practice Learning, Formative Assessment, Knowledge, Workplace

Introduction

Learning in a workplace environment is different from learning in a University environment. One of the main differences between learning in the formal educational system and learning at work is that the former is based on formal, intentionally planned educational activities, while the latter is mostly informal in nature (Eraut, 2004; Marsick and Watkins, 1990). Many Universities including the University of Mauritius have introduced the element of Work-based Learning practices in their curriculum with the objectives that students would be acquiring professional skills and knowledge when they are exposed to the world of work. The placement of students in organisations during their studies engages the students to work alongside with professionals to develop graduate skills. Assessment in practice learning is seen to contribute positively to increase the commitment of the students in completing the training programme. Mentors (Training Supervisors) are generally called upon to make formative assessment before they come with summative assessment. In this regard, Boud and Falchikov (2005) suggest moving from summative assessment that focuses on specifics, standards and immediate outcomes to more sustainable assessment that can aid students to become active learners not only in managing their own learning but also in assessing themselves to life beyond the end of the course. Formative assessment is sees as a sustainable assessment method for helping student achievement in practice learning. This paper investigates the impact that formative assessment may have on students' own learning and performance.

Literature Review

In 1971, Scriven introduced the concept of the formative assessment, which was later improved by Bloom in 1971. According to Scallon (2007), formative assessment takes a focal place in any learning process, whose role, is not to certificate, but to provide a scholastic democratisation. Introduced since the 1960's, formative assessment highlights a concern for assessment as a process of continual verification to guide the teaching and learning demarche. According to Popham (2008, p 6) *"formative assessment is a planned process in which assessment-elicited evidence of students' status is used by teachers to adjust their ongoing instructional procedures or by students to adjust their current learning tactics."*
The formative assessment involves a cycle composed of three levels:
1) *Observation:* The role of this stage is to construct a reality of learning, conditions, modalities and their results. According to Perrenoud (2005), the observation is formative when it is used to guide and improve learning regardless of ranking, certifying or selecting the learner. It is rather to expose the state of knowledge and skills, instead of confining oneself to be on a scale and compare it to other learners.
2) *Intervention*: Intervention entails the symptoms to address the sources of difficulties. It involves analysing metacognitive knowledge that is very mysterious (Perrenoud, 2005). Perrenound (2005) believes that assessing competency only by observing the learners reaches its limits very quickly, especially in a training exercise: say "you can do better" does not help the learner to do it better. To be useful, the observer must identify, isolate mental functions or specific actions and identify their weaknesses.
3) *Regulation*: The concept of regulation entails describing the mechanisms that provide guidance, control and the adjustment of cognitive , emotional and social activities and their

relationship with a learner. (Allal *et al* 1989). Endrizzi and Rey (2008) argue that regulating learning process involves all operations of the metacognitive learning and interactions with the environment that influence learning process in the sense of a defined objective.

Struyven *et al* (2005) indicated that students' perceptions about assessment significantly influence their approaches to learning and studying. Conversely, students' approaches to study influence the ways in which they perceive evaluation and assessment. When students participate in formative assessment, there is opportunity to give feedback to students. The provision of feedback is one of the primary functions of formative assessment. A further function of the formative assessment is to provide feedback to the mentors. Concerning these, Bloxham and Boyd (2007, p 21) argued that *"for assessment to function in a formative way that supports students' future learning, the findings have to adjust teaching"*. For the case of practice learning, it helps mentors to get a clearer view of where students are experiencing difficulties and they can adjust their support and guidance provided to the students. This is supported by Black and William (1998) who suggested that assessment becomes 'formative' when the evidence is actually used to adapt the teaching to meet the needs of students or by the students themselves to change the way they work at their own learning.

Research Methodology

A mixed methods research design guided the study. Two sets of questionnaires were developed. One was administered to undergraduate students from four faculties who undertook work based learning practice and the second set were slightly modified from the first set in order to extract relevant information from mentors. The survey contained three open-ended questions and thirteen Likert scaled questions (rating questions 1-4, 1 strongly disagree – 4 strongly agree.). The first set was administered to 120 undergraduate students with 30 students from each of the four Faculties of (1) Faculty of Law & Management (FLM), (2) Faculty of Science (FOS) and (3) Faculty of Social Studies & Humanities (FSSH) and (4) Faculty of Engineering (FOE). The second set of questionnaire was given to 40 mentors at various practice settings where the students were undertaking their practice learning.

For qualitative data to gain a better insight into formative evaluations in practice learning, two focus group interviews were conducted. The first one involved 12 students with 4 from each faculty and the second one involved 5 mentors.

Data Analysis and Discussion

Reality as experienced by the students and the mentors have an important additional value. It is therefore crucial to take in to account their perceptions after both groups have gone through the process. Table 1 below indicates the results compiled after data collection.

The quantitative data were analysed using SPSS version 21. Shapiro-Wilk test was performed to determine normality of the data and the test revealed that the data is not normal generating p-values < 0.05 for each case. At 95% confidence interval, the p-values being less than 0.05, confirms that the normality test failed. The ANOVA test therefore could not be applied to the independent variables. A non –parametric test was therefore expected to lead to better concrete results. The Kruskal Wallis test is preferred for each case under the analysis.

Table 1: Results Analysis - students and mentors

Formative Assessment	Groups	Mean	SD	Median	Kruskal Wallis Test
enhances the student-mentor relationship	FLM	2.73	0.45	3	Asymp Sig = 0.059
	FOS	2.69	0.471	3	
	FOE	2.93	0.258	3	
	FSSH	2.61	0.495	3	
	Mentors	2.78	0.424	3	
provides better understanding of the placement environment	FLM	2.20	0.484	2	Asymp Sig = 0.155
	FOS	2.24	0.636	2	
	FOE	2.34	0.484	2	
	FSSH	2.52	0.508	3	
	Mentors	2.41	0.572	2	
allows students to develop critical self-reflection skills	FLM	2	0.263	2	Asymp Sig = 0.08
	FOS	2.07	0.530	2	
	FOE	2.14	0.351	2	
	FSSH	2.39	0.558	2	
	Mentors	2.19	0.483	2	
provides opportunities for developing creativity	FLM	2.20	0.551	2	Asymp Sig = 0.136
	FOS	2.14	0.351	2	
	FOE	2.00	0.535	2	
	FSSH	2.32	0.475	2	
	Mentors	2.26	0.447	2	
facilitates the handling of complex tools & technologies in the work setting	FLM	2.00	0.455	2	Asymp Sig = 0.160
	FOS	2.07	0.530	2	
	FOE	2.07	0.593	2	
	FSSH	2.26	0.445	2	
	Mentors	2.26	0.526	2	
fosters learners how to make their own interpretations	FLM	2.63	0.669	2	Asymp Sig = 0.340
	FOS	2.69	0.471	2	
	FOE	2.93	0.258	3	
	FSSH	2.52	0.667	3	
	Mentors	2.70	0.661	3	
facilitates the development of self-assessment in learning targets	FLM	1.80	0.847	2	Asymp Sig = 0.058
	FOS	2.07	0.371	2	
	FOE	2.00	0.707	2	
	FSSH	2.06	0.680	2	
	Mentors	2.26	0.984	3	
provides opportunities to set future learning targets	FLM	2.10	0.712	2	Asymp Sig = 0.126
	FOS	2.24	1.786	2	
	FOE	2.00	0.598	2	
	FSSH	2.32	0.748	2	
	Mentors	2.15	0.818	2	
enhances self-confidence in learning	FLM	1.97	0.490	2	Asymp Sig = 0.140
	FOS	1.97	0.626	2	
	FOE	2.28	0.528	2	
	FSSH	2.26	0.514	2	
	Mentors	2.33	0.877	3	
helps to identify weaknesses in skills	FLM	1.97	0.805	2	Asymp Sig = 0.191
	FOS	1.62	0.903	2	
	FOE	2.03	0.566	2	

| acquisition | FSSH | 1.61 | 0.989 | 2 | |
| | Mentors | 2.00 | 1.000 | 2 | |

facilitates the learning process to complete the achievement of the learning outcomes for the remaining weeks of the training	FLM	1.40	1.163	2	Asymp Sig = 0.054
	FOS	1.62	0.942	2	
	FOE	1.93	0.852	2	
	FSSH	2.58	0.672	3	
	Mentors	2.19	0.786	2	
is more appropriate for practice learning than classroom learning	FLM	2.07	1.143	2	Asymp Sig = 0.140
	FOS	2.28	1.064	2	
	FOE	2.17	0.468	2	
	FSSH	1.71	1.213	2	
	Mentors	2.11	1.121	2	
is less stressful than formative assessment used for classroom learning	FLM	1.83	1.020	2	Asymp Sig = 0.055
	FOS	1.90	0.817	2	
	FOE	2.52	0.574	3	
	FSSH	2.39	0.919	3	
	Mentors	2.59	0.572	3	

The results depicted in table 1 show that the mean and median values among the five groups for each of the items relating to the impact of formative assessment on student's own learning and development were found to be very similar. Kruskal Wallis test reveals that there is consistency among the groups concerning to all the questions set about formative assessment as described above ($p > 0.05$ at 5% significance level). The evidence suggests that FLM, FOS, FOE, FSSH students and mentors shared similar views and agreed with the positive impact of formative assessment on student's own learning and development.

During the interviews, respondents shared their opinions on formative assessments and their contribution towards student's own learning and development. They were also requested to list the problems faced when performing the formative assessment at practice settings. They were also expected to highlight whether the assessment activity was appropriate to facilitate acquisition of knowledge and skills. Interview session with the students highlighted that formative assessment was highly beneficial as it promotes further learning. Most students confirmed that the feedback obtained really helped them in developing confidence in the work that they were handling. 45% of the students stated that the formative assessment helped them in identifying areas where they were not aware that their performance was low. This greatly helped them in improving their summative assessment at a later stage during the training. One student from FOE emphasized that "we all would appreciate if our mentors can provide us more consultation time so that we can improve our skills". Another echoed, "The mentors are very busy people and sometimes the consultation time and feedback provided are too little for us to do our best". They felt that increased interactive sessions were required between mentors and students. Students further commented anecdotally that the process of formative assessment was better planned in practice learning, as compared to classroom learning. They indicated that the assessment process facilitated them for further skills development and helped them in developing creativity to achieve the stipulated learning outcomes.

Concerning mentors, all of them confirmed that formative assessment allowed them to monitor student. Mentors were of the view that formative assessment allowed them to interact effectively with their students, clarifying their doubts and removing their apprehensions in the practice settings. However, one mentor stated that formative assessment was time consuming and that he would prefer performing summative assessment straight away. None of the other mentors found that the provision of formative assessment during the practice learning affected their workload. All the five mentors stated that formative assessment enabled the students to reflect upon their learning. One mentor suggested that formative assessment need not only be performed individually, but may also take place in groups where the tasks assigned involved higher order thinking skills like getting students to analyze, synthesize, evaluate and apply information.

Mentors viewed continuous feedback as supporting students to be actively involved in collaborative and reflective learning, in encouraging self-reflection and putting them on the path to become autonomous learners. Mentors felt they had a major role to play in helping students develop self-confidence in knowledge and skills acquisitions during practice settings. The study in fact confirms Black and William's (1998, p 16) findings, who state *"What students need is a variety of living examples of implementation, by instructors with whom they can both derive conviction and confidence that they can do better, and see concrete examples of what doing better means in practice"*.

Conclusion

This study demonstrates that formative assessment has a positive impact on students' practice learning. The findings have shown that formative assessment provides students with constructive feedback that largely facilitate them in acquiring the necessary practical knowledge and skills. In fact, formative assessment should be viewed as a catalyst in practice learning as it encourages students' self-reflection, which contributes towards the development of learner autonomy. With the many benefits of formative assessment procedures, it is recommended that universities make provision for formative assessment during practice learning. This will positively engage students and help mentors in facilitating learners in the acquisition of knowledge and skills in practice settings.

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How Welfare Economics Will Help to Meet the Challenges of the 21st Century

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Abstract
In this paper I have brought out the key concepts and strategies that are required to enable an economy's all around development. The present situation in this world especially after globalization throws challenges on how every country adopts the requirements of the world and configures its economic policies accordingly for inclusive growth and development. The paper focuses on the meaning of "capability", in real terms and the various steps that government should follow to achieve economic and welfare goals. There are various mathematical formulas and welfare standards which are brought out in this paper as a note of guidance to policy making bodies in order to achieve productive developmental outputs through sound welfare measures. Another important aspect, which is covered in this paper, is "capability matrix", which measures capability in four fold aspects- literacy, assets, financial growth and employability. In order to analyze and apply the above four factors one need to clearly differentiate between efficiency and effectiveness. The" total utility" generated by an economy at any point of time may not always result in value upliftment of any fraction of population because of two central reasons:

(1). The demand put forward by international economies may not align to the supply needs of the domestic economy at a particular point of time and thus lead to lag in the form of market competitive forces.
(2). The existing productive manpower of an economy may not always be willing to provide service in the domestic economy and are willing to migrate to other economies that provide better monetary rewards and thus the production is hampered.
The "Economic freedom" is one of the crucial factors that needs to be assessed to judge what is the extent of ownership rights being enjoyed by the under privileged sections of the society and the level of activities that is undertaken by them in sink with the general mass in the process of development.

Keywords: Capability, Capability Matrix, Total Utility, Economic Freedom

What is Welfare Economics?

Welfare Economics can be defined as, "the ways and means that an individual can adopt to move from his current state to enhanced state and simultaneously uplifting the standard of living of the underprivileged sections of the society by creating welfare opportunities for them."

So, now let us see how to enhance and create welfare opportunities:-

(1). <u>Changes in way of thinking</u>- An individual's growth process must be such that it keeps in pace with the changing needs of the society. For e.g.:- certain section of the population of any country always follows a conservative approach when it comes to education, and change in lifestyle.

(2). <u>Increasing literacy rate</u>- The education system must be channelized towards the welfare system which means that right from the inception when an individual is choosing his or her stream of choice, the educational institutions must set up two sets of criteria:-

(A). <u>Core Competency</u>- An individual's main focus area. The present day economy demands that with complete mastery of the individual's area of strength one needs to analyze the probable linkages of its competent areas to other branches of knowledge to enhance its productivity.

(B). <u>Supplementary Competency</u>- That is in which other areas an individual's core area can contribute, must be tracked. E.g.:- an individual's knowledge base should not be limited to demands of the domestic economy but rather it should simultaneously should deliver to the improvement of the international economy. The income growth should not only be limited to job enrichment but also capacity development.

(3). <u>Dynamism</u>- This concept is a crucial matter in welfare economics and it can be judged in the manner that to what extent an individual's contribution to one sector is providing value addition to other sectors. E.g.:- Finance and I.T.

The Dynamism judgment= (Total Utility*N) - (Total Marginal Benefit from the "nth" unit of labor).

Note- (a). "N"- Denotes the workable population of any economy.

(b). "nth unit"- Denotes an additional labor or the same employed labor's value addition either to the same industry within an economy or to any other industry or in a wider level to any other economy.

(c). The difference figure will give us the gap that is existing between value enrichment and potential value generation i.e. between employed value adding workforce and the employable potential human capital yet to be employed.

Defining Capability

Before, defining capability we need to understand "Demand," in the context of welfare economics. "Demand," can be divided into two parts:

(1). The average time period for which an individual income earner is able to attain the 'equilibrium stage', by maintaining his income level for meeting the living standard and also the needs of the society (company, or any other practice).

(2). In the long run, we have to look for bridging the gap between the literacy rate and the frequency of growth in the inter-economy employment market, there arises a problem regarding employee substitution and adaptability to different challenges which the economies come up at particular point of time, for which course delivery and tenure must be aligned to the different countries employment laws, migration rules and foreign policies.

In order to meet the above two goals, following conditions must be fulfilled:

(1). **Literacy Rate**= fraction of population meeting the benchmark/population accessible to education*100

(2). **Choice Set**= comparison between core strength and service asset to capture the utility value.

Service Asset can be defined as, "the list of attributes that are defined by the planning commission pertaining to GDP growth and the set of values that an individual posses to match the requirements at that particular point of time." The attributes may range from individual development, peer-peer development, industrial growth, or enhancement in talent acquisition index.

(1). The "Capability", is to be measured in terms of 'marginal contribution' that an individual is making to various sectors with the acquired skills and knowledge.

E.g.:- a person in the field of Finance doesn't mean that it will not contribute to the field of Operations, so the focus is on systems integration and multi-skills development.

(2). Capability and functioning is not confined to combination of offerings of actual state, rather how much we are leveraging on our freedom and able to explore opportunities.

Efficiency= n (n+1)*k/ (MPL*rd)

Where, n= concerned part of population who are real contributors in creating resource efficiency and life betterment

(N+1)= the focus group of population on which it is generating impact for status upliftment

K= GDP growth target

MPL= Marginal productivity of labor

Rd= Relative demand for the concerned resource (land, labor, capital or human ability)

(4). The Capability, should focus on "to what extent an individual is capable of developing others' lives with more contribution to self".

Capability Matrix

Capability	Measurement
(1). Literacy	GDP rise with a balance between HDI & Gender distribution. Beta + (i%/i+g)*MPL
(2). Assets	Return on investment SG+MVA*MYAE/n
(3). Financial Growth	Up to date knowledge on SEBI and Stock Market and other financial instruments (Mutual Funds)
(4). Employability	Experience from Project works of various types of industries

Total Capability= A+B+C+D

Where,

Beta= Constant Growth Rate maintained by the Planning Commission

I%= percentage growth rate in intellectual base due to acquired education.

G= actual growth that the economy is producing

MPL= Marginal Productivity of Labor

SG= Sectoral Growth

MVA= Market Value of Assets possessed

MYAE= Mean Year of Acquired Employability

N= Total Population assessable to education

Calculation of Success Factor of Capability

Mean Value of foreign exchange circulation (f1) + {MYAE-Real TimeAE}/MVA

Where,

F1= extra circulation of foreign currency after training

MYAE= mean year of acquired employability and education

MVA= Market Value of Assets

Taking into consideration the time lag between education and job

The value of the formula must be closer to Per Capita Income, better it is. The'n' focus will be the benefit section of the population.

Economic Freedom

The term "freedom", can be defined as the quantum of value exchange that an individual is capable of doing in various situations and the ability to analyze them into future growth and stable livelihood building".

The situation specific can be divided into three parts:-

(1). State of normalcy- It is the situation where an individual already has a strong family background to establish themselves in context of the global situation.

(a). Productive capacity of the family is creating new benchmark to achieve the Pareto constancy for the rest of the population to meet the globalization challenges of the world economy.

(b). Pareto Optimality= marginal growth of that particular fraction of population – Marginal utility of the focused group(%change inutility/%change in literate population).

(2). <u>State of maturation</u>: - The main focus here is related to quality of education and training imparted by various countries to cater with their economic demands both in the short run and the long run. In this case, the gap analysis is to be made between mean year of acquired education and real time acquired education. Real time is concerned with reaching the development phase of the employment cycle of an individual, while the mean time is concerned with the time frame within which an individual is ready to start its employment cycle.

(3). <u>State of Valuation</u>: - The state where Self demand=Economic Demand.

Where,

Self Demand= Individual's efficiency rate*competency rating growth

Economic Demand= Industry demand in domestic economy and international economy benchmark.

Individual's Efficiency Rate= Marginal Growth of the individual's performance as a result of better training, technological advancement, holistic work environment, one's access to resources + Base level performance.

Competency Rating Growth= various performance weightage given by organizations' on the basis of their life cycle (growth, maturity).

Human Development- The process of human development is the art of three states:-

(a). A position in which an individual is able to define the very basis of his existence by way of value addition to his life and to the society.

(b). Is in a situation where he can extract his demand, even in conservative economic environment where there is employment and money crunch.

(c). is able to amalgamate the output of his domestic economy to the global economy.

Thus, we have to consider the following:-

(1). The time lag between the creation of demand and supply of it.

(2). The elasticity of substitution by the existing resources to contribute towards actual capital and potential capital, relating to GDP Growth.

Actual Capital= Amt. invested in existing manpower+ Inflation Rate/Budgeted growth as determined by Planning Commission.

Potential Capital= Capital value enhancement by marginal contribution+InflationRate/Targeted Growth Rate.

Therefore,

Human Development Index must consider and compare the cost of growth that an economy is bearing with the value return that various fraction of population is providing both within the economy and in the international economy.

(A). **Within the Economy**: -

Cost of Growth= (1). Market value of the resource <Cost of acquisition of that resource.

(2). Rate of Inflation > Return on exchange of currencies.

Value Return= The expected years of converting the resource into delivery mode*Utility factor.

Where, Utility Factor= Weighted Average of years of education to enter into employment cycle*Cost associated with it / Total Cost channelized into the sector in the budget by the Govt.

(B**). International Economy**- The value that an individual is able to attract to stabilize the EXIM policy, Balance of payments and increase the frequency of currency exchange in the economy. It can be depicted by the following table:-

Total population of the economy getting migrated to earn foreign exchange	Utility comparison by way of currency flow to mark the trading pattern of the currencies in international money market
Proportion of currency flow by way of core & supplementary competencies	Average Revenue Curve growth must be maintaining a constancy in terms of marginal revenue, marginal cost, target growth rate and monetary policies

Efficiency vs. Effectiveness

(1). **Efficiency-** It can be defined as the art of mapping things in the right flow to get a competitive advantage and enhance utility.

(2). **Effectiveness**- It can be stated as a reduction in the the period to reach a point of final marginal effect from initial marginal effect.

Initial Marginal Effect- The comparison between fixed production units' value in terms of other currencies and the average variable cost balance between revenue and capital profit.

Final Marginal Effect (a). Value generated by the demand curve both in terms of elasticity of price and revenue.

(b). Measure of standard deviation of the average time period of the age of efficiency to the age of effectiveness.

(c). Capability Index = (Final Marginal Effect + Initial marginal effect)*Avg. time period targeted to meet the demand schedule.

<div align="center">

Conclusion

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In this paper I have tried to bring out the various dimensions of welfare in human life. The focus of welfare is on capability development, which in turn demands policy making bodies of various governments to adhere not only to domestic economic needs but also to forecast how a particular output will cater simultaneously to the demands of the other economies to enhance the quality of exchange for betterment of life. It may so happen that the magnitude of growth may not at that point of time be absorbed by the economy fully, at that time it must explore the opportunities of either self employment or critically analyze the choice ability factor to determine its long term goals well balanced with short term goals.

Education Driven By Creative Learning, Innovative Thinking And Entrepreneurship

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Abstract

Education, a holistic learning to gain knowledge $\Longrightarrow$ discover $\Longrightarrow$ deliver. A lot of changes have happened over many decades in the field of education but some of the questions still remain in the minds of students/individuals like have I obtained the right source of information? Will I be Industry ready tomorrow and be innovative? Have I been trained with the right tools to become an entrepreneur? Well, the beginning of the education starts right from the curriculum which has to be re-designed for the better. Looking towards the future, the kids and students are getting smarter, so we will have to understand the new generation learners, imbibe knowledge with core skills needed for fast paced environment, greater use of technology as a study tool, define a path for change in the learning experience. Secondly, teacher's/professors mentorship in identifying student's talents and skill-set to one's true potential with the institution's/university's support. Teaching methods + institution's systems = Creative learning + innovative thinking. My paper will talk about the strategic tools required for improvisation of educational methodologies explaining the importance of leadership skills, creative learning experience, self – assessed research, also the role of higher education influenced by an innovative curriculum. The key mantra here is to have a formulation through a structural relative approach and reformation change in a very refined method helping an individual in broader aspect of thinking, creative ability to solve complex global problems, creating economy growth drivers and also sell a new idea being the most essential skill for an entrepreneur.

Keywords: Student learning, Innovation, Creativity, Entrepreneurship

Objective:

1. To find the factors that help in creating value based education driven by creative learning, innovative thinking and entrepreneurship.

2. To make a comparative study on the best institutes with the other institutes and understanding the system of education and methodology.

3. To give suggestion over the theory of relative education and LEED + C model which can be used as an innovative model, an objective of educational tool or method required for the 21st century educational needs.

Design/methodology/approach – The research is based on both primary data and secondary data. An E - survey was made and references were done with respect to journals and various books, e- books on education and institutes which were made and collected, in order to understand the learning environment of the students and teachers and also case analysis were made to gain clarity over the comparative study of the functionality of education methods and administered with respect to various schools and colleges to measure the number of courses and programs integrating sustainability and entrepreneurial approach in education.

Findings – Overall there was lack of systematic ways and approaches in the integration of innovation in education curricula, out of the box teaching methods which is one of the most important need for today's world, this is something the institutes never took part as an additional role and responsibility other than the general learning means and methods required for the restricted syllabus and lacked deep/core learning of syllabus or subjects. The concept of education system is missing the core understanding of the subjects which helps in apply those learnt content into practicality tomorrow.

Challenges: A case study - From primary data with a combination of students from different grades, also with the undergraduate and graduate students.

Mom I want to become a Pilot; Dad I want to become a Scientist; Sir/Mam I think I can change the world. Do we still hear this when young kids say this to us??Don't You?? When will that transformation happen? Yes we do. As a young kid we all tend to say whatever we feel like. Anything would be possible then, but the same attitude is never carried towards dreaming of becoming of what one is interested in, over a period of time it all changes. It all comes through practical learning experience also to be trained with the right tools of education approach, knowledge, leadership and skill set to full fill the dream. There is a great sense of excitement and equally a great struggle by breaking the barriers of hardships to achieve the required goal.

Student's Mind Set: Over a Period of Time

What it has been so far: Everyday other questions pop up as the students grow: Bookish knowledge enough for career skills? Will my grades affect my career growth? I'm i good enough? Will I be industry ready tomorrow? Can I take a business risk? Have I made the right career choice? Everyone has a goal but not a focused goal. The students have an objective in mind yet they are in a confused state when it comes to making decisions in terms of what would led to where. Some of the reasons could be due to lack of availability of tools and techniques in particular institutes which might need to support their need and requirement. Hence they feel the right guidance and support of what an individual needs from a mentor/teacher/professor is not justified.

Heard, Personal experiences and Responses:

I was asked not to take up commerce; I was told not work on a project by an IT firm.
I always fail to sell my idea; We are not able to make decision in our careers.
We can't focus on one subject. I think I need another concept to support my study but it's unavailable here in my institute. I can't afford for another course.
We have been asked to do things as market demands. My life is programmed.
We have been asked to choose a career which my parents have decided as they think I would get a good job doing this course.

These were some of the experiential ways to understand the system and process of education in certain schools and colleges/institutes:

Programmed methods of teaching and learning: The class sessions are plain and not challenging; it is the same chalk and talk monologue method of teaching. The knowledge gain here is very limited where there is no opportunity for the students or individuals to express their intellect and talk their point of their views towards a particular topic. This becomes a limited access of learning that has an impact on the future prospects of the student's career interests and aspirations they would want to achieve. If the basic learning is limited to just syllabus prescribed it becomes very difficult for the students tomorrow when it comes to application of their learning in their jobs. What we teach today is the cause for the impact tomorrow, so the learning process and experience has to be strong and efficient.

More quantification is required: It is important for the teacher to say how we arrive at a point for example a formula. Here the mandate is that teacher has to give a little history behind a formula usage before arriving at the problem and finding solutions before even understanding the core concept of the particular topic. This way by learning the reason behind usage of formulation, the further formulation becomes much easier; there is better relative understanding while further studying that particular topic or a subject. The deeper understanding will help in better analysis and judgment.

Need core understanding: The skills are measured by the way an individual has learnt his basics in which he has to be stronger and in his ability to learn things quickly and effectively which will measure his/ hers efficiency. They are interrelated to the core/ deeper understanding of one's learning in the past. In the class sessions the methods taught should be covering the overall aspect of the syllabus which should contain the past, present and future for the aspect of knowledge in relating and understanding a particular topic should be wholly specific and complete. Lack of attitude for freedom of expression could be one of the reasons.

Deeper analysis: Analyzing a topic should be made a practice which is not a option in some of the schools. The plain syllabus that is taught is very restricted to the available curriculum as prescribed by the institutes and universities which restricts the students to do their learning to a very limited space. Analysis can be self analysis, analysis on a subject or a problem, or can be teachers or mentors analyzing their assessment towards the transformations made in the student's career needs. All of these were not preferred as a part of the school/college priorities.
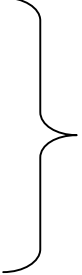
Better evaluation: There was no evaluation made on the students other than the grades of the students which were rated on the basis of intellect and ability to learn. This way it becomes very difficult for the student to evaluate his own performance as his thinking is only focused on grades. Rating on basis of grades can only mark the content of book knowledge but not practical learning which is the most critical requirements for any individual for the competitive world. We have always known the importance of education for the real world which happens at the best institutes, its important for the other institutes to learn and adapt some of the methods which would support their course of study. Keeping in mind the objective of the need.

What is need for the 21st century?

Experiencing Education Driven By Creative Learning, Innovative Thinking And Entrepreneurship.

Making every career/course equally important and sustain globally.

Column to understand the current Indian scenario.

Level of Schools / College	Nature	Theory of relative teaching	
Elementary Schools	Fun & Learning	We try doing it here	
Primary Schools	Learning basics	Possibilities are low	
High Schools	Learning & Advance with basics	Have to adapt	Need to continue the way we started
Pre university & Undergrad	Understand the role of learning	Have to adapt	
Higher degrees	Mastery over learning	Have to adapt	

*Source – Survey

Theory of relative education:

What is theory of relative education in experiencing and learning a curriculum?

It is to do and teach things differently relating your curriculum or program of a course or study by not missing out the objective of the prescribed syllabus. The programmed syllabus can be tweaked by making one's learning more interesting and impactful which helps a student or individual do more than just learning. A visual activity and example with motivational direction from the teacher's or professor's end plays a critical role in doing this activity.

Examples:

- Remember what happens when Jerry hits Tom on his head?? – 'Clotting of blood'- Primary graders

- Talk about a James Bond movie – laser watches – 'Concept of Lasers' – For the high schools

- Role play – Consider yourself as the Leader of this program/Marketing manager – Graduate/Undergrad.

Strong definition of a goal/focus along with Objective of the curriculum theory
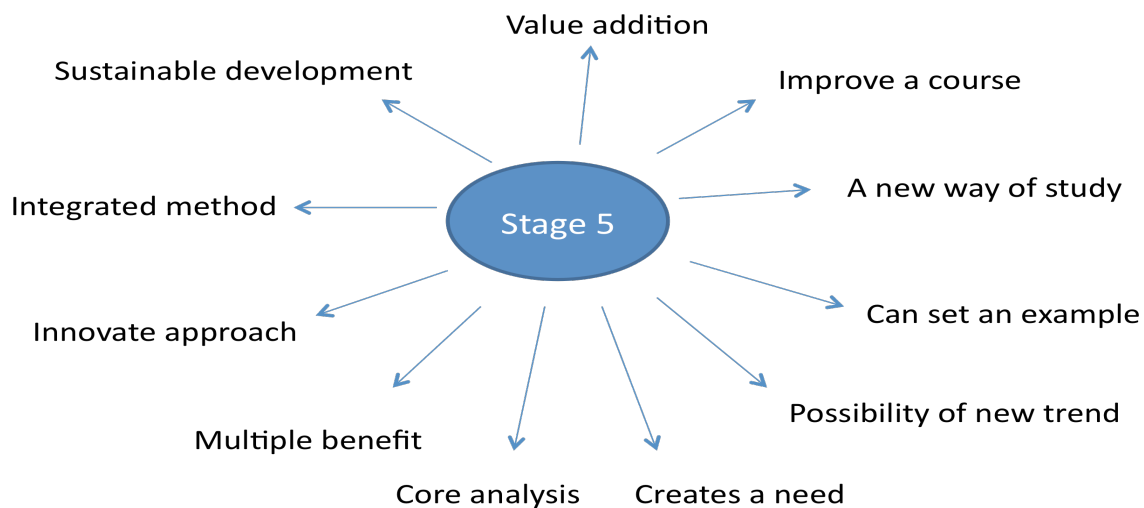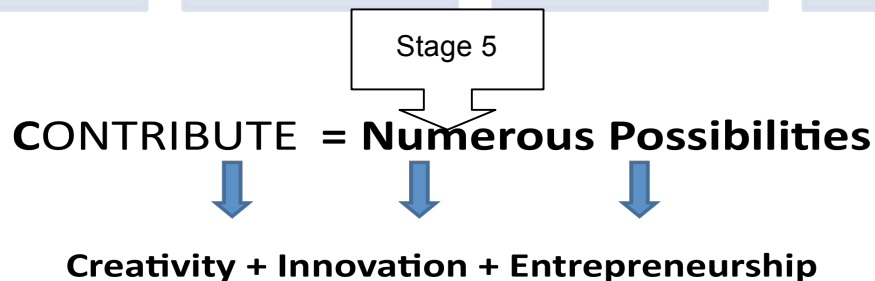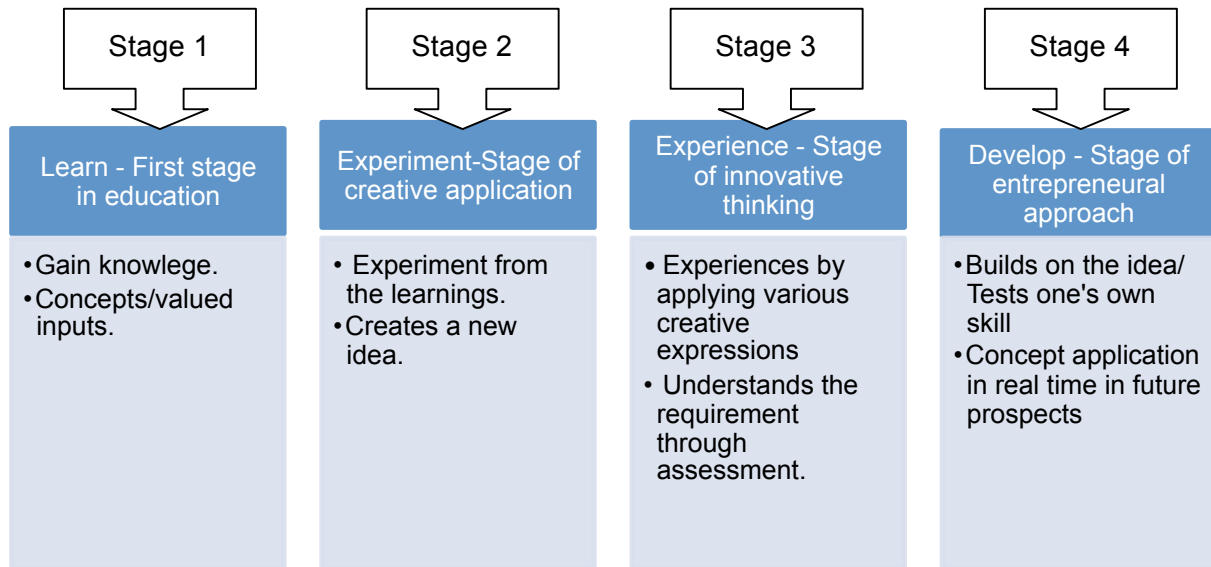
- **Never miss out on what you have to teach** – When the activities are designed in accordance with the curriculum and the learning is practiced based on the requirement of the syllabus it is important to make sure that the teacher or a professor never misses out on the main objective of the learning. This requires constant practice from the teachers to mould their skill set to train the students in comparison with the syllabus.

- **Create interaction & impact in what you teach** – It's important to ask students what they think about a particular topic and create a dialogue in a classroom by involving the topic as a role of identity and interaction. This helps a student to think beyond a particular point of conclusion which is otherwise made by a teacher with a single point of communication which becomes a restricted phase of his first learning. This method of approach would create impact in the learning process.

- **Relate and influence with examples into class teaching** - The theory of relative education could become a strong usage of showcasing concepts of learning a curriculum with live and fictional examples which would create a great influence on learning. The key mantra is to have a focused note of activity involving the division of the syllabus driven by a relative theory of explanations that would further influence in better understanding and greater grasping of applications and concepts.

Impact:

- Grasping power increases: There is a huge impact in this way or method of learning the degree of grasping increases and the understanding capabilities would be far better than the average learning experience.

- The students relate and recall quickly: Relative education would have a great influence on the students, during their weekly/monthly test analysis or annual and semester exams and for their future application from their learnt experiences.

- Thinking ability increases: Creates better maturity in thinking and application in their individual and future prospects of their educational and professional environment these are impacted from the exercises made and derived from the class discussions and dialogues.

LEED + C Model: Learn, Experiment, Experience, Develop + Contribute.

Stages of Development:

Stage 1	Stage 2	Stage 3	Stage 4
Learn - First stage in education	**Experiment-Stage of creative application**	**Experience - Stage of innovative thinking**	**Develop - Stage of entrepreneural approach**
•Gain knowlege. •Concepts/valued inputs.	• Experiment from the learnings. •Creates a new idea.	• Experiences by applying various creative expressions • Understands the requirement through assessment.	•Builds on the idea/ Tests one's own skill •Concept application in real time in future prospects

Stage 5

CONTRIBUTE = Numerous Possibilities

Creativity + Innovation + Entrepreneurship

Value addition

Sustainable development

Improve a course

Integrated method ← **Stage 5** → A new way of study

Innovate approach

Can set an example

Multiple benefit

Possibility of new trend

Core analysis   Creates a need

My **LEED + C** Model: What is this model and how does it help?

It is a sustainability model that helps in learning, understanding, practicing and applying education what is required for the real world and it is done with the series of differential practices that helps an individual gain deeper understanding in education. The LEED + C model can prepare a student future ready for their entrepreneurial, educational and professional journey and overall the skill set required for the 21st century. These can derived with the help of digital media and the available technology. The basis of this model has a continuous flow of influence at every stage of the learning process it is a step by step methodology which makes an individual influence their creative thought process and exercise their brain resulting in the innovative and versatile thinking capabilities.

Designing curriculum/learning

Step by Step Process:

- Allows a student to first **LEARN** - This is the first stage in which the student gains attention to basics at school or college where this stage can be taught with the theory of relative education and influence their thinking capacities. The perception of the student differs from one another at this stage but the objective to master their learning towards a particular topic/subject/ syllabus is fulfilled. For Instance: Subject to influence – Learn the key basis of relative Marketing. Stage of experiential learning.

- Then **EXPERIMENT** his learning in reality - This is the second stage at which the key role is played by the teacher to ensure after the learning stage. The phase of experimenting a particular topic is done. This is the most important and critical stage of continuity of an individual's learning leading to a creative approach of thinking. For instance a by experimenting the learnt experiences into practicality a class activity can be made by creating an idea – marketing concept to marketing experiment equating to a New product introduction. Stage of Creative application.

- Advances by **EXPERIENCING**- The third stage is a big differentiator as the students talk about their learnt concepts and applying innovative expressions to convince the group or crowd of other students by understanding the market based on the field/ real experience. Many things emerge out of this activity it can be innovative thinking and the application of his past learning into action that becomes a representation of the student's complete understanding towards a particular subject which is again equated to the assessment of grade being one of the evaluation points for the overall performance valued by the teachers and senior heads. Stage of Innovative thinking.

- **DEVELOPS** on making decision: At this stage the students/individual develops a point of realization to make his/her own assessment and evaluation of understanding the knowledge they have gained over the application of their own creative thought process and creates the attitude of making right decisions to identify his strengths and weaknesses about a topic or subject in the curriculum/syllabus based on the evaluations made and shared with the students, which is one of the main prospects and attitudes required for a entrepreneur by testing his own skills and further builds on his idea and applies it in real time in the future by carrying the same behavioral approach. Stage of Entrepreneurial approach.

- It finally leads to numerous **CONTRIBUTIONS**: Final stage will tell the students to focus on their strengths/interests and improve on the weakness. By knowing what an individual is good at, it provides a gateway for numerous contributions in the field of one's interest. This stage will also create a way for teachers to think if they would use other mediums or methods to teach a topic/subject and gives a feedback for re –improvisation.

  "CREATING A NEW PRODUCT/SERVICE IN A CLASS SHOULD BE A PART OF EVERYDAY LEARNING IN A ROLE PLAY/OR ANY OTHER METHOD AND NOT JUST A PROJECT"

  An Observation is made in every stage and final Assessment by the group mentors or Teachers.

Support from teachers/institutes

Role and participation of teachers with the equal support of institutes/universities.

 1. **Motivate/Encourage the student's interests** – The teachers and professors play key role in engaging the students and designing the program in accordance to their respective topics. Motivation can happen by making classes more interesting and fun driven, these can be possible only by having constant attention of students with one to one relationship with the help of group mentors. This approach would also help in identifying the interests of the students and encourage them in their interests.

 2. **Engagement/Dialogue of learning in class** – Interactive learning is one of the best ways to understand the concepts and theories in a class environment. It all depends on the teacher and professors who constantly practice and prepare themselves to create this dialogue before they conduct classes among the students as it generates various point of views on a particular topic or event of exercise. This activity would create even greater deeper analysis over a particular subject.

3. **Understand a student's career needs**– While interaction and engagement are the key notes for basic needs for the student's freedom of expression, constant evaluation in understanding the needs of students career's is the other aspect where observations and touch points of conversations from every students should be made note of. This would tell the primary focus of an individual's need further helps in giving the clarity over one's interest in a particular subject/ topic and give a boost in encouraging in what a student likes to do in his career.

4. **Being more accountable on what they teach** – Being self conscious about what they are teaching everyday and justice to one's contribution of valued teaching methods. Every teacher/professor should be accountable to see the results of their teaching by not just comparing with the outcome of the grades but to evaluate the real test of application in a particular subject that has impacted the learning experiences of the students.

5. If students are ranked based on certain assessment, **'Let's start ranking the teachers'** – It is important to equally rank the teachers like we rank the students. Based on the improvements driven in the classroom learning by comparing the percentile increase of the students over a period of time and also full fledged support given to students in order to help them improve in their studies and overall mastery of a subject. This evaluation should be made the head of the teacher departments and institutes who should definitely play a key role in adapting and implementing these schemes in the functionality of their education system and methods.

6. **Train the teachers to teach things differently**- It is important from the institution's/university's end to provide equal support to the teachers by making them understand the value of diverse method of education which has to be constantly discussed, debated and judged based on the requirement and need to implicate it with the syllabus. This can be possible with the help of departmental heads or principals of the schools with regular mentorship given to the teachers with different training tools and techniques.

Impact of LEED + C model on students with equal support of teachers

Anticipated Results

- **Greater Capacity to Analyze** – With the capacity to relate with what a student has learnt and experienced in his innovative educational environment the capability of an individual would be far better when compared to the programmed classes. The analytical thinking ability would far better through the exercises and creative activities a student would have experienced in the class. All of this will added to greater confidence in one's career path.

- **Clarity in thinking** – The activities participated in classroom sessions of schools/colleges that involved the freedom to think and express in their own terms in relation to the topic of the curriculum will create more maturity, more over precision on a subject or topic, this would developed as a habit of their learning process and continue with the same attitude of approach because they are molded by the right course of thinking.

- **Freedom to Express and innovate** – The dialogue and interactive sessions driven by entrepreneurial approach provides a great chance to enhance their capabilities and innovate their small little ideas to make them more resourceful. This is possible by mastering the communication with respect to class experience and flow of innovative ideas that comes across during a debate in class with respect to a subject. The channel of experimenting and experiencing will help this phase.

- **Learn the power to sell ideas** – Conversion of an idea into a practical expression of selling which will become a habit overtime as the training and learning sessions experienced at the classrooms will helps a student understand in creative and innovative thinking by making mistakes in the primary assumptions, correcting them when needed with the help of the teacher's/professor's mentorship and constant evaluation which will help both the students and teachers to assess from their learnings. This will in turn generate clarity over thoughts that would create a gateway for what exactly is needed to sell an idea. For instance to sell a product over an innovative marketing idea.

- **Creative application possible in the walk of corporate/career challenges** – Application of creativity is one most important things required for the 21st century. It is possible to enhance this key substance with the influence of the LEED + C model. The mantra here is the development of the thinking capabilities and the adaption to one's comfort of mastery over the theories of subject interests. Identification, relation and implementation are the 3 stages a student/ individual undergoes during this model training at school/college. The result of which one's future career or corporate interests and focus towards one's defined goal is fulfilled.

- **Power to make tough and right decisions** – Making the right decision is one of the main challenges in any walk of one's career path. It can be with the corporate world or an entrepreneurial journey. An individual learns the method of balancing the act of taking this important step by anticipating the future expectations. The level of maturity is enhanced by the practice of training exercises the students have learnt in their entire career journey and path with the suggested model. It helps an individual to take a stand to make those tough and right decisions.

- **Ability to solve complex problems** – The tougher the problem the more delay in making decisions, implementing the idea to an execution of reality. A complex problem can lead to a chain of reactions of delay affecting the smooth process of work. Experiential learning will help in this situation with the help of creative learning and innovative thinking to come up with alternate solution for a particular problem and make the most complex problem easier to solve and re enforce the smooth process of work. All this is possible by learning and hearing to what others in the class have said and the teacher's mentorship of basics along with the self implication of improved flow of thought process. The combination of these will make it up to fulfill the required needs.

- **Entrepreneurial behavioral and skill-set** – This model would create a great influence on behavior change of seeing and perceiving things a little different. As

it is a complete opportunity given to students to explore, experiment, express, experience and even decide what they think is right according to them. It is like a role play where a student/individual's practices in class could become a replication who he/she stands for tomorrow. It is greatly support by the teachers/ professors with their constant participation, motivation and assessment done at every stage of their learning sessions, who are also equally important and responsible in molding every student's skill-set and creating a success path.

Conclusion: There are many ways to represent a system, in a way one teaches and also different methods one could design the curriculum to suit and need of the education benefit to the fullest. I have come up with my LEED + C model from my understandings and research data to impart in the method of teaching curriculum which will help not just the students in their overall experience of learning and their personal development also will help the teachers learn new things everyday by the process of assessment. Personality development is one of the key things required to master for one's future needs which will in turn reflect his overall development in the future. This has to be molded at the early level of his/her's learning phase as the level of grasping is better and adaptable. So qualities like leadership skills, providing a platform to experience creative learning with some of the curriculum related activities and engage them to do things differently by innovate thinking and mastering the skills through the core learning experience, self evaluation and the assessment made by the teachers which become the correction points for individuals if made any mistakes and better them by not repeating them in the future which is one of the nicest things this model can teach that would directly impact in one's entrepreneurial journey. There is a great need for innovative methods of teaching every session in the class that will definitely have a strong influence on every individual student that will create an understanding for an individual to identify his/her interests and aspirations at the very early stage. This would definitely ensure to identify one's own career interests by discovery their weaknesses and strengths to create opportunities for them and also creating opportunities for others which is one of the most important function as a leader and an Entrepreneur.

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Enlightening Action Research Makes My Life Easier in the 21st Century Workplace

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Abstract

In my workplace, there are several serious changes in terms of learning, teaching and working with other people. *How do I survive and live with happiness in my workplace?* In this research, the development of my paths of life would be focused. Three successful outcomes happened in my life. First, I could graduate with doctor of education even though I was quite a low potential student (in my mind), and was not a rich person. Second, I could lose my weight from 80 kg to 60 kg in two years. Third, now I am very happy in my work life. I can live, learn, develop and adjust myself in any circumstance at my workplace.

With self-reflective thinking carefully, I realized that skills of learning to live, work and adjust myself in various situations are very significant for me. Action research in action adapted from Hadley (2003) and action research procedures are the main thinking processes of thinking and the main methodology to obtain data. They are most influent in my successful outcomes. I enlightened the processes of my problem solving by using them. There are two steps in this research. Step 1: Action research in action (setting, focus, investigate). I used *setting* when facing real and current problems: *knee pain because of my over weight; felt very worried because of tough learning in doctorial program* and *felt unhappy in language teaching at my workplace*. I used *focus* to narrow the problems and *investigate* which strategies were most suitable to solve problems by using action research procedures.   Step 2: Action research procedures (plan, act, observe, reflect, revise and report).

I used *plan* for goal-setting and finding strategies obtained from various knowledge sources to reach my goals: *to lose my weight at least 10 kg in two years; to finished doctorial program by five years and to be happy in language teaching at my workplace*, *act* for doing following the plans, *observe* for noticing what interesting events happened while following the plan, *reflect* for analyzing the interesting events in terms of what; why; and how, *revise* for changing better for the next time and *report* for summarizing the negative and positive outcomes.

The research showed that I graduated Doctor of Education Program in five years (2002-2007). Now in 2014, my weight is about 60kg, and I am very happy in my work life because during years 2011-2013, my career life was fairly successful. In 2013 I received certificates of outstanding working and teaching award. I think it is not the end of development but my life has just begun. However, the big successful learning is that I enlighten how I can survive in the 21st century with happiness.

Keywords: Action research, action research in action, action research procedures

Introduction

This research is the development of action research processes which I have learned and gradually had experiences to make my life easier in the 21st century. At present, people meet a lot of obstacles from their workplace because of rapidly changing world. People who could not learn and adjust themselves in various situations would face high life challenge. They may suffer from their changes and then might finally quit their jobs. As results, I was very curious to know how I could survive in my 21st century work place where several things were also changed rapidly. Therefore my self-reflection processes were analyzed. First of all, I would like to introduce myself and the brief of my workplace to support the reasons why I had conducted this research.

I have been working as a lecturer at King Mongkut's University of Technology North Bangkok (KMUTNB) for twenty years. I had most precious opportunities in my life to receive full scholarships to study both master and doctoral programs from my workplace. Therefore, if I had done nothing to gratitude my workplace, I would have been miserable forever. For KMUTNB, there were about 141 programs offering 69 Bachelor's programs, 46 Master's and 23 Doctoral program curriculums, plus 3 vocational certificate courses, also known as the Pre-Engineering programs under the auspices of College of Industrial Technology offering students the opportunity to complete the first 3 years of an engineering curriculum prior to admission to further engineering program (KMUTNB events, 2013).

Its philosophy, commitments, vision and mission are as follows: **Philosophy** *"To Encourage Innovation in Science and Technology through the development of people"* **Commitments** *"The development of human resources in science and technology through a balance of knowledge, morality, as well as the capacity to innovate so as to contribute to the economic, social and environmental development"* **Vision** *"To guide KMUTNB professional science and technology"* **Mission** *"To supply qualified graduates to the society, To encourage research and academic services, To support public academic services, and To maintain national arts and culture"*

According to theses issues above and to gratitude my workplace, I noticed that one of significant factors to drive all these issues to the destination was that each person working here should improve his/her professional development, and tried to help together to reach KMUTNB' goals at his/her own pace. In this research, the development of my healthy life (losing weight about 20 kg) and career life (professional development) were focused. However, in the development of both healthy and career life, I have gradually perceived and learned through action research in action and action research procedures as well. he next section is described about important aspects and theories behind the research.

Important Aspects and Theories Behind the Research

In this section, there are two important aspects and theories behind the research. They are as follows: aspects of 21st century workplace and how to make life easier, and theorise of action research: action research in action and action research procedures.

Aspects of the 21st Century Workplace

If we want to live easier in our workplace, we need to know the important aspects of the 21st century workplace. The followings are examples of thinking processes of how to succeed in this century workplace. Pink (2005 in Wikipedia) summarizes a history narrative into four majors "ages as follows: 18th Century: Agricultural Age *(Farmers)*, 19th Century: Industrial Age *(Factory Workers),* 20th Century: Information Age *(Knowledge Workers),* 21st Century: Conceptual Age *(Concept Workers).* He also describes conceptual age as a new trend of work. People in workplace need guided by the right brain in including: "Design (Moving beyond function to engage the sense.), Story (Narrative added to products and services-not just argument. Best of the six senses), Symphony (Adding invention and big picture thinking- not just detail focus), Empathy (Going beyond logic and engaging emotion and intuition), Play (Bringing humor and light-heartedness to business and products), Meaning (the purpose is the journey, give meaning to life from inside yourself)." People working in this age should develop thinking in term of design, telling stories, reflecting with fun and relevance.

I as a teacher and researcher should improve myself by developing thinking processes to reach KMUTNB' goals. I started to summarized my interesting situations, reflect on them, adjust or change better.   If we need to succeed in 21st century workplace, we should know and apply them into our real life situation. *enGauge, 2003 describes four important skill clusters to success in the 21st century workplace: "Digital-age literacy (Basic, scientific, economic, technological, visual, information and cultural literacy and global awareness), Inventive thinking (Adaptability and managing complexity, self-direction, curiosity, creativity, risk taking, higher-order thinking and sound reasoning), Effective communication (Teaming and collaboration, interpersonal skills, personal responsibility, social and civic responsibility and interactive communication), High productivity (Prioritizing, planning, and managing for results, effective use of real-world tools, ability to produce relevant, high-quality products).*

According to these views, I applied them to my real life situation. For example, in losing my weight, there were several choices to help me beginning from paying much money to pay nothing such as buying commercial books, video packages, or free studying from videos, articles, research, etc in the internet. I decided to save my money to study how to lose my weights by the latter, designed a schedule to exercise and adjusted the schedule to reach efficient results by discussing, sharing and exchanging experiences and knowledge to others. This meant that I applied Digital-age literacy, Inventive thinking, high productivity, and Effective communication to my real life situation. Self-reflection processes in action research in action and action research procedures helped me to apply these four skill clusters into my real life situations.

Aspects of How to Make Life Easier

While doing the research I realized that doing things relevance to my life with passions enhanced me live easier. Gundolt (2010) provides five ways to make life easier as the followings; *"Do what you like to do most, Keep it simple, Accept things the way they are, Forgive and move on, and Be aware."* Landers (2014) also provides some practical tips to make life easier such as *"changing things by doing instead of blaming, focusing on you inner inspiration instead of other people's opinions, stopping being negative, being easy on yourself,*

falling in love with fearless, doing something making you a little uncomfortable every day to develop your confidence to manifest your dreams." I did things I liked most: to further study, to lose my weights and to consistently do action research. Sometimes, I accepted some things which could not be solved, forgave myself when I did not make it and moved on to the main goal with reflecting for changing better. For example, when I could not follow my schedule of losing weights, I adjusted action plans without anxiety and moved forwards. Rohn (cited in Robbins 2011) suggested Tony Robbins, coming from a troublesome family to live easier, *"happiness and success in life are not the result of what we have, but rather of how we live."* I agree this view because happiness and success in my life also take place from understanding how I live. Moreover, I realized that the processes of action research in action and action research procedures usually helped me to understand how I live.

Action Research

How to react and solve important problems suddenly happened in correct ways as much as possible were very meaningful to my life. The main aspects of action research were parts of solving my problems. Wikipedia, the free encyclopedia, describes action research, *"**Action research** is either research initiated to solve an immediate problem or a <u>reflective process</u> of progressive <u>problem solving</u> led by individuals working with others in teams or as part of a "<u>community of practice</u>" to improve the way they address issues and solve problems."* Self-reflection processes also enhanced me to further develop and change better for the next phase. The aspects of action research are systematic and self-reflective for one's professional practice and then could develop social change (Riel: 2010).

A series of self-reflection of action research create learning processes of problem solving (Bereiter & Scardamalia, 1993 in Riel, M. (2010) and *"it also a process of living one's theory into practice"* (McNiff & Whitehead, 2010 in Riel, M. 2010). In my research, I stared from having no ideas to enlightening action research to solve my problems and I noticed that the more I used a series of self-reflection, the more I understood how to apply theories into practice and how to apply practice into theories.

Action Research in Action and Action Research Procedures

Renandya, (2003:i) describes action research in action, *"Action research in action is about classroom–oriented research conducted by classroom teachers."* Hadley, (2003:ii) says, *"Action research in action is the reflective language teacher's organized and ongoing search for classroom solutions and professional insight."* The eight action research in action (edited by Hadley:2003, Ribereiro:2003, Farrell and Ting: 2003, Mayo:2003, Green: 2003, Warwick and Jefferey: 2003, Martin: 2003, Watson Todd:2003, Hadley:2003) were described action research in action systematically as follows: setting, focus, investigate, response, reflections, task. In my situation, I applied these steps in to Goal-setting (describing general goal), focus (narrow the scope of problems), and investigate (how to solve problems) and then followed action research procedures: plan, act, observe, reflect, revise and report to change better for the next cycle. In doing so, I could learn and increase my professional development. The elaborated processes are described the next section below.

Research Procedures and Presentation

There are three cycles in this research. They are described as follows: Cycle 1. In the condition, I had no ideas about action research at all. Cycle 2. In the condition, I gradually perceived action research because of studying Ed.D program, professional development. However, it was not focused on current situations. Cycle 3. In the condition, I enlightened action research because of having more experiences in conducting action research. More details were described below.

Cycle 1: Having No Ideas About Action Research

Before studying doctoral program, I noticed that my workplace changed drastically in terms of Philosophy, Commitments, Vision and Mission, its goals focus encouraging innovation in science and technology through people development. Most people around me discussed and talked to me about study further. One of them said, *"If you want to live here easier, you have to study further because of in the coming new policy. People who want to teach in the university have to graduate doctoral level."* At that time, I realized that the condition was very interesting but tough to make it. One question came up in my mind, *"How do I live in that situation if I want to work for this job? The answer in my mind is, "I must study further. That's it!* That was the starting point to inspire me to study further, doctoral program. Therefore, I started to ask myself, *"How do I prepare myself to study doctoral program? How and when do I start to reach my goal, studying doctoral program?"*
These questions always happened in my mind so every time when I had opportunities to meet people who graduated or was studying Ph.D. programs, I started asking them without hesitation about how to prepare to study further. Most of them suggested the following topics which should be focused: Standardized testing scores, study fields places, and money. I just asked the questions, but did not much respond to the answers. I did not know the way to react when I met tough situations and most of the time I decided to do nothing.   As results, I spent almost five years to reach my goal: to study doctoral program with getting full scholarship.

Unconscious Thinking Processes

To study doctoral program **(Goal-setting)**, on language teaching and how about money **(focus),** How do I get scholarship to support my study? **(Investigate).** Talking, Asking, and discussing with a lot of people several times about how to get full scholarship to further study (**Action research procedures**: plan, act, observe, reflect, revise and report unconsciously in phases 1, 2, 3 until reach the goal). Finally, I got full scholarship to study international doctoral program under academic cooperation between Burapha University, Thailand and Victoria university, Melbourne, Australia. However, I spent much time to handle obstacles to reach my goal because I did not have explicit knowledge of action research.

Cycle 2: Gradually Perceiving Action Research

I started to know the name of action research because 4 of 6 courses of this program emphasizes on professional development, especially my dissertation based on action research. In this cycle, there were two goals: to graduate Ed.D program and to lose my weight. They were described below.

Goal 1: To graduate Ed. D program
Phase 1.
Plan: I planned to attend the class every lessons. *Act:* I studied and tried to follow the university schedule. *Observe:* My big problem was that I was so stressful and worried about my learning that I could not sleep almost every night and then it made me sick because of sleeplessness. The outcomes of learning for two subjects in the first semester of the first year almost failed. In 2001, I got H3 for HER 8514: The Practice of Professional Development and H2A for HER 8512: Advanced Studies in Education and Train. (Criteria for grading: H1 means First-Class Honours 80%-100%, H2A means Second-Class Honours; Upper 70%-79%, H2B means Second-Class Honours; Lower 60%-69%, H3 means Third-Class Honours 50%-59%, N means Fail 50%-59%) *Reflect:* I was an insomniac person because I usually finished assignments in last minutes. I lacked confidence in doing assignments so I usually waited to the last minutes to submit. *Revise:* I decided to use two strategies created to solve problems. *Report:* summarized strategies to solve problems and promised myself to follow them as much as possible. (see appendix 1)

Phase 2.
Plan*: I planned** to follow the two strategies obtained from Phase 1. "Try to submit assignments on time" (See appendix 1.) ***Act: I tried to follow the strategies by being clear objective assignments and collect key information in the class and tried to find Obstacles blocking my thinking. Asked my friend first to recheck my understanding by summarizing main ideas and then asked the lecturer to confirm whether I went to the right tract or not. ***Observe:*** I noticed that I had more time to understand the lessons, to analyse information and to apply to the assignments. I realized that strictly following the contract was very important to enhance me to achieve the task. However, it depended on obvious and priority goals. When I had problems, I started to find ways to solve problems immediately. Therefore, the following outcomes of learning for the last four subjects in the following semesters were better. In 2002, I got **H1** for HER 8510: Policy Context of Professional Development, **H2A** for HER 8511: Education, Training and the Economy, **H1** for HER 8513: Investigating Professional Pracitce 1 and **H1** for HER 8515: Investigating Professional Pracitce 2. ***Reflect:*** Using these two strategies helped me to see the whole pictures which part I should took action immediately to solve problems first. As I saw the learning outcomes, I thought that I felt much proud of myself and could remember the processes of learning forever. Because I used these two strategies to help me to finish assignments in time, it made me felt better and I realized that the more I felt better, the better I was. However, the most important factor to encourage me to finish this program was all lecturers, especially my supervisor who always was willing to work very hard to supervise me until finish writing the dissertation. I would like to say from the bottom of my heart, *"Thank you so much for their kindness to supervise me."* ***Revise:*** Try to have more confidence in further

conducting action research for my career. **Report:** Finished writing Ed. D dissertation: *"An Action Research Study of Promoting Students' Confidence in Speaking English"* (Songsiri, 2007)

Goal 2: To Lose Weight

During 2007-2011, something happened by chance in my life. When I looked myself in the mirror I noticed that I had an over size to buy any clothes in reasonable prices and moreover I had a little knee pain because of my over weight (At that time, I was 155 cm tall and weighed about 80kg.) As a result, I talked to myself, *"I had to do something for myself"* and *"changing eating behaviors and exercises every day"* came up in my mind. I gradually changed eating from junk food to healthy food every day. I started to have clear **goal-setting** to lose my weights, **found** strategies to reach my goal by reading, asking, discussing, watching from various sources, **did** following strategies with trusting the plans via action research procedures) again and again.

The interesting processes of losing my weights were described below

Phase 1	Phase 2
Goal-setting: To lose my weight at least 1kg a week every week	**Goal-setting:** To gradually lose my weight focusing on happy outcomes
Plan: - To run about 1 kilometers every day - To work out various types every evening - To eat more fruit and vegetables - To scale my weights every morning to check whether my weight lost or not	**Plan:**- To run at least 500 meters every day morning - To work out various types at least 5 minutes every day evening -To eat more fruit and vegetables (rice: fruit & vegetable 1:2) -To scale my weight every week
Act & observe: I tried to strict following the plans. However, sometimes I could not follow the plans. For example, I was too tired to run 1 km a day and I felt very disappointed. When I scaled my weight in the morning, it did not lose and sometime it also increased because of more eating. I felt failure and more depressed to lose weight. I felt more frustrated and angry myself. Finally, I realized that the more I felt frustrated and angry my self, the less my weight lost.	**Act & observe:** Every day morning, I could run at least 500 meters and every day evening, I could exercise at least 5 minutes. Sometimes, I continued to exercise more than an hour with pleasure. *Wow! How could I do that?* I could strictly follow the plan because the plans were adjusted to be suit for me and I did not too much force myself to lose weight. I thought it depended on my purposes. I noticed that I felt happier than the past when I started exercises. My weights gradually lost. Most people usually asked, *"How could you do that?"* That was a very wonderful question to encourage me to keep going.
Reflect & revise: Feelings frustrated and angry were not good factors for me to lose my weights so the question *"How could I delete these feelings?"* happened in my mind. I found that too much tough goal and plans made me frustrated and depressed. As results, my goal-setting and plans should be adjusted or changed.	**Reflect & revise:** According to observing, I realized that there were two main factors to make me feel happier. First, my goal was changed from tough to normal goal. This made me behave better than the past. As a result, I could strictly follow the plan over expectation. Second, the more I felt confident, the happier I was. It depended on my clear goal, *"If I don't want to compete with others, my goal should be adjusted to suitable for me."* It meant that I could follow the plans with relaxing and happiness. However, more knowledge of healthy food, healthy life and healthy mind should be emphasized for the next phase.

Report: If I had reached the goal, I would have lost my weights 8 kg in two months. However, I could not reach my goal and I was very unhappy during two months. My weight did not only decrease but also it increased about 2 kg. I decided to change better for phase 2. All the revisions were reported in phase 2	Report: Goal; My weight should gradually lose with happy life. Now I can lose my weight from 80 to 65 kg and I have maintained my weight during 60kg to 65 kg for seven years. That's it. NB. At first I thought that action research procedures could be useful only in my career. In this cycle, I started to apply action research procedures to save my life.

Cycle 3: Enlightening Action Research

In this cycle, the processes of successful outcomes applied from action research in action and action research procedures were described the followings. The first step was describing real situations happened in my life, using action research in action to get current unexpected situations and using action research procedures to show how to solve problems, develop and change better as shown in the following pattern: *real life situations, goal-setting, focus, literature review (contents, knowledge, and skills I should know), investigate, action research procedures (plan, act, observe, reflect, revise and report)*. During 2011 to the beginning of 2014, I started to apply action research in action and action research procedures to help me to solve problems and the results were quite positive outcomes as shown below.

In 2011, I received a certificate for outstanding teaching award because the overall of my students' teaching evaluation was 4.6 of 5 which was rather high. I observed that while teaching, I started automatically thinking of the processes of action research in action and action research procedures to solve problems happening in the classes. For example, I conducted action research *"Action research in action: Enhancing students to reach their speaking goal with confidence in a large class with limited time by action research procedures and awareness-raising"* (Songsiri: 2011). The interesting processes of my teaching were based on the followings: situation (Summarizing interesting events happened in the class), action research in action: goal-setting (setting goal to improve), focus (to close analysis of interesting information), investigate (to find out how to solve problems) action research procedures (plan, act, observe, reflect, revise and report) to show how to solve the problems.

During 2012, I was appointed to be an academic assistant of Social and Applied Science Department and received a certificate for outstanding working in my workplace. At that time, I was asked to increase students' language ability, especially English speaking skills because of the coming of ASEAN Economic community in 2015 (Situation). Most students and authorities required speaking skills first. Thus, the goal of English activities was *speaking English as much as possible* (goal). I created various activities focusing on speaking (focus). For activity 1, *"ASEAN Days,"* I provided opportunity to have variety of students from bachelor degrees and vocational certificate to join together to practice speaking English in the Hall. For activity 2, *"The battle of EP 25 & EP 26"* I had students from two classes of English program to battle in language performance outside regular classes. For activity 3, *"Wow! Evaluation"* I asked students of vocational certificate of English program to encourage, motivate and evaluate engineering students of regular program to practice speaking English as much as possible at their own peace. I felt curious to know whether all these activities worked or not (Investigate). I used action research procedures (plan, act, observe, reflect, revise and report) to get and develop learning outcomes. The results from the questionnaires of students' attitudes towards all three

activities reported that they were satisfied towards activities 1, 2 and 3 as follows: 3.6, 3.4 and 3.7 of 4 in respectively. I found that most students felt happier and more satisfied to join external activities in rapport and positive atmosphere.

In 2013, I continued doing action research on the title: *"Enhancing non-language learners to pass the English compulsory course by action research procedures"* (Songsiri: 2013).

In 2014, received a plate for outstanding working in my workplace and I got scholarship from King Mongkut's University of Technology North Bangkok to do research. Contract no. KMUTNB-GEN-57-42. The research title is *"A model of professional learning practice for 21st century learners, focusing on language learning."* This research is based on action research theory. The data obtained from seven language development projects which are as a tool to investigate how learners could reach their learning goals at their own pace. The goal of each project is to get *"A simple model of professional learning practice in language learning."* Seven language development projects are shown as follows: Project 1: How to write an abstract, Project 2: English conversation for beginners. The outcome of this project was developed into research. The research title is *"A short model of professional learning practice of project 2: English conversation for beginners"* published in the proceeding of the international conference on *Future Trends in Learning, Education and Teaching Methodology* (FTLETM 2014) held on May 3-4, 2014 Bangkok, Thailand, Project 3: English conversation for intermediate level, Project 4: English conversation for advanced level, Project 5: English conversation for engineering students, Project 6: Standardized tests, Project 7: Job application. All seven projects were adjusted and developed based on action research in action and action research procedures. In this cycle, I deeply understood to use questions (*what, how, when* and *why)* with obvious purposes and use action research in action and action research procedures to solve any problem happened in my life. The more I practiced professional learning by doing action research, the more I had professional development. The more I enlightened action research in action and action research procedures, the more my life was easier and happier because I could handle important obstacles occurred in my life. Now, I realize that my successful outcomes were based on the automatically thinking processes applied from action research in action and action research procedures shown in the picture below.

*My real life problem **situations**, **Action research in action**: Goal-setting, Focus, Literature review (contents, knowledge, and skills I should know to find strategies to reach my goal at my own pace), Investigate (how to reach the goal), **Action research procedures** (change for better)*:

Cycle 1 plan→act→observe→reflect & revise **(study to obtain more knowledge to change better)** and report
Cycle 2 plan→act→observe→reflect & revise **(study to obtain more knowledge to change better)** and report
Cycle 3 plan→act→observe→reflect & revise **(study to obtain more knowledge to change better)** and report
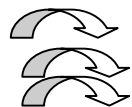
Promoting professional learning development by sharing and exchanging experience and knowledge to others such as writing research or joining international conference

Figure 1: How enlightening action research makes my life easier in my 21st century workplace

Conclusion

After my life has gradually had experience and knowledge of action research from having no ideas at all to understand it, I realize that the ways how I respond to problems are much different. In the past, I spent much time to handle obstacles happened with miserable life as in cycle 1. When I gradually perceived action research experience, I noticed that my thinking processes to solve problems were more obvious patterns as shown in cycle 2. In cycle 3, I had more opportunities to practice conducting action research. Therefore, the ways I responded to the problems were rather automatically and I had much more confidence in doing action research. I think I could apply the processes of action research in action and action research procedures in various fields. Nowadays, I strongly believe that enlightening action research makes my life easier in my 21 century workplace because of the development of my thinking processes. Whenever I meet any obstacles to reach my goal, I automatically use the processes of action research in action: goal-setting (set the goal), focus (make the goal clearer), investigate (find ways to solve the problems by various knowledge sources), action research procedures (plan, act, observe, reflect, revise and report) to change for better at my own pace. Finally I hope that this research might be a little useful for someone who has been suffering of facing any tough situation and did not know how to overcome it.

Acknowledgement

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Appendix 1

Goal: submitted assignments in time (semester 3)

Table 1: Strategy 1. Design a table to help me see the whole picture of doing assignment

Subject	Be clear objective assignments and collect key information in the class	Obstacles writing assignments	Which channel help me to solve problem	How to solve them.	Due date to submit assignment
1					
2					
3					

Table 2: Strategy 2: Learning contract sheet (I promised myself to follow the contract as much as possible)

	Week 1-2	Week 3-4	Week5-6	Week 7-8	Week 9-10	Week 11-12
Subject 1,2, and 3	Understanding course evaluation and clear objective of assignments	summarizing main ideas of each lesson	grouping ideas of assignment objectives	creating First draft of assignment by my understanding and then consulting a lecturer whether I am going to the right track	writing second draft by adding, adjusting information obtained from self-learning and the lecturer	editing the whole paper to check for the last time
Clarify: Done/Not yet. **If not** :Why What problems/ How to solve problems						
Signature						
My feelings						

NB. I noticed that the more I strictly followed two strategies, the less I was stressful and worried.

Assessing Emotional Intelligence and Interpersonal Skills of University Students as Predictors of Employability

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Abstract

This study was undertaken to investigate the factors affecting quality of Pakistani graduates as potential employees for the 21st century job market. As the academic achievement of university graduates is the primary criterion for their recruitment, the study measured two of the most commonly cited employability attributes of selected graduates and correlated these with the Grade Point Averages (CGPAs). A sample of 300 final year students at the University of the Punjab's Institute of Education & Research (IER), were randomly selected and surveyed using the Chinese Emotional Intelligence Inventory (CEII) and the Interpersonal Skills inventory based on Howard Gardener's Multiple Intelligence theory. Two hundred and twenty two graduates completed and returned the survey forms. The results showed that the self- reported Emotional Intelligence and Interpersonal skills of the graduates were very high (>87% for both categories), but there was no significant relationship of these important predictors of employability with the students' academic achievement. This finding suggested that the employability attributes of the graduates were not being given due weightage in their summative assessment and was not reflected in their academic achievement. The study's findings throw light on the student-assessment system of Public Sector Universities in Pakistan and corroborate the need for curriculum, assessment and faculty development expressed by Raza & Naqvi (2011) in their research on employability of Pakistani Public Sector graduates.

Keywords: Emotional Intelligence, Interpersonal Skills, Employability, Academic Achievement

Introduction

With the advent of the 21st century rapid changes in the jobs market have transformed the nature of work and the subsequent perceptions of the workplace. It is no longer sufficient for graduates to hold a university degree based solely on subject-related competencies. Their Degrees need to be value-added in order to cater to the changing and challenging work situations.

Employers today, search for graduates who are innovative as well as capable of fitting into the organisational culture through team-building and professionalism (Harvey et al., 1997). In addition, the more challenging or non-traditional employment opportunities graduates aspire for, the greater becomes the need to possess and exhibit higher levels of self-efficacy. Yorke and Knight (2004), have drawn a causal relationship between students' self-efficacy beliefs and self-theories together with certain other personal traits, and their level of employability. Self-efficacy, in relation to employability is widely understood as a person's perceived capability to plan, organize and execute the courses of action to achieve desired ends; such beliefs play a more significant role than the capability itself in achieving success (Bandura, 1997). The inter-relationship of Self-efficacy and Emotional Intelligence has been firmly established. Behjat & Chaudhery (2011) have quoted several studies that report a positive correlation between these two human traits.

The term Emotional Intelligence (EI) has been defined as the manner in which individuals perceive, process, manage and utilize information that pertains to their emotions. Higher emotional intelligence in individuals manifests itself when they associate with other people to pursue diverse but similar goals while engaging in activities that promote a positive lifestyle. Emotionally intelligent people have a better understanding of others' feelings and emotions and consequently are in a better position to use group dynamics for achieving common goals (Bandura , 2001).

Interpersonal skills are the life skills we use every day to communicate and interact with other people, both individually and in groups. People who strive to develop strong interpersonal skills are reported to be more successful in both their professional and personal lives. Interpersonal Skills Include:

- Verbal Communication – the language we use and the manner in which we express ourselves.
- Non-Verbal Communication - What we communicate to others through gestures, facial expressions and body language.
- Listening Skills – Our ability to interpret both the verbal and non-verbal messages sent by others.
- Negotiation – Being congenial when working with others.
- Problem Solving – Overcoming challenges by involving others to find solutions that are acceptable to all.
- Decision Making – Weighing available options for sound decisions.
- Assertiveness – Being vocal and clear in expressing one's values, beliefs, opinions, needs or wants.

This study was undertaken to investigate the real worth of university education in Pakistan. Employability was assumed to be the primary indicator of success in higher education. By measuring Emotional Intelligence and Interpersonal skills of university students as predictors of employability, the researchers aimed to determine their impact on the academic achievement of the graduates. The underlying assumption was that higher levels of employability skills would result in a corresponding high score in academic achievement. To reciprocate, the teachers' evaluation of students' worth would correspond with the students' self-reported worth if the desired teaching/learning was taking place.

However, the findings were disappointing and alarming as they revealed a discrepancy between the perceived worth of the graduates as reflected by their CGPA, and their self-reported worth as measured by the research instruments.

Literature Review

The Meaning of Employability:

According to Knight and Yorke (2003) employability refers to such personal attributes of individuals that make them more likely to gain employment and be successful in their chosen careers. Little (2001) perceives employability as a multi-dimensional concept, which consists of factors that influence job-acquisition and preparation for work. Employability as a concept can best be described in the context of lifelong learning or as a performance indicator for day-to-day living. Fugate et al (2004) have referred to a person's career identity, personal adaptability and human capital in its social context as the three dimensions of employability.

There is enough evidence in educational research that effective schooling, vocational training and university education affect income and job opportunities, and that these in turn contribute positively towards a society's economic prosperity. The lifelong benefits of education are manifested as resilience, psychological and emotional well-being, and participation in social life, all of which promote self-efficacy and can be translated into preferred employability skills. Education that provides work experience or internship opportunities promotes mastery experiences (Bandura, 1995) that turn 'novices to experts' (Benner, 1984). Work experience has been described by researchers as the most effective way of creating a strong sense of self-efficacy and consequently enhancing employability. Other skills associated with employability include, motivation and enthusiasm; interpersonal skills; versatility and adaptability; the ability to take initiative; planning and organizing; managing for personal development; and communicating effectively (HEA, 2006).

Knight and Yorke (2000) contend that learners need to understand how knowledge can be used in a variety of different situations before they can apply it in a specific context, thereby stressing the need for opportunities in education to apply the learnt concepts. They advocate the "USEM" model, which stands for, "Understanding (of the subject discipline); Skilful practices in context; Efficacy beliefs; and Meta-cognition." (Knight and Yorke 2004)

How to Promote Employability Skills?

Abilities, aptitudes and qualities that are deemed useful and supportive for an occupation or career are described as employability skills. These skills can either be inherent in certain individuals; or can be instilled and honed through effective pedagogical techniques; or else, can be developed through work experience. In any case, social and emotional employability skills need to be given due consideration for truly effective higher education (Dymnicki et.al.2013). Such skills are closely linked with lifelong learning and require suitable curricular innovations focusing on pedagogy, assessment and evaluation, student/teacher relationship and course designs. A very important component for promoting lifelong learning skills is to recognize and build upon particular strengths of a diverse student body. Parents and peers are a special source of support who play an indispensable role in lowering anxiety levels and helping students face challenging prospects and situations. (Dennis, Phinney, & Chuateco, 2005).

Higher Education and Employability Skills

With the diverse challenges of the 21st century, mainly stemming from irresponsible depletion of precious resources, it is imperative that educational institutions step in to play their foremost role of building up the value structure of societies and the corporate world. In this context, the degrees they award must represent the real worth of their graduates as opposed to token worth based on association.

A report generated by the Ministry of Economic Affairs on Pakistan's employment trends (2011) states that, "A rapid growing labour force in Pakistan might become problematic, especially those people who lack, skills, social networks and know-how to market themselves as potential valuable wage and salaried workers. They could be left behind, joining the growing number of people who are forced to accept work under inferior conditions, or move into the informal economy."

The fundamental requirement for graduate employment is an educational degree from a reputable higher education institution. This requirement has however resulted in a highly competitive labour market and an unhealthy race for higher and higher Grade Point Averages (GPA). Raza and Naqvi (2011) report that graduates from Public Sector universities in Pakistan are not geared to compete in the national and international job market due to a lack of institutional professionalism. They conclude that inadequate curriculum and teaching/learning strategies that encourage rote learning and regurgitation rather than problem solving, questioning, and creativity are the probable causes of this ineffectiveness.

It is now well recognized that a university degree based on subject competency alone is not enough to get a suitable job. Graduates need to polish and enhance their employability attributes, which then need to be reflected in their academic achievements. Recruiters are looking for people with additional qualities that are essential to cope with changing job demands in an uncertain and competitive world. Foremost among these qualities are a candidate's emotional intelligence and interpersonal skills which arouse a sense of security and dependability in potential employers.

Research Methodology

A survey of final year students at the Institute of Education & Research (IER), University of the Punjab was conducted to measure their Emotional Intelligence (EI) and Interpersonal Skills as the two identified, essential requirements for employability.

The items in the two inventories used for data collection were grouped according to the traits that they were designed to measure. The Factors for each inventory are given below:

III-1. The Emotional Intelligence inventory had the following dominant factors:

Cognition and understanding of self-emotion. This refers to the graduates' ability to recognize and understand their own emotional make-up which can contribute towards providing them greater self-control under stressful or adverse circumstances.

Application and management of self-emotion
This trait helps individuals to use their cognition and understanding to avoid the adverse influence of negative emotions.

Cognition and understanding of social interaction
This refers to the ability of graduates to identify external factors impinging upon their own emotional states, as well as the emotions of others around them.

Application and management of social interaction
Includes interpersonal communication skills and the ability to interact with others in a composed manner even under stressful situations and show empathy to other's emotions.

Factor grouping for Emotional Intelligence:
- Cognition and understanding of self- emotion (Items 9, 10, 11, 12, 13),
- Application and management of self-emotion (Items 1, 2, 3, 4),
- Cognition and understanding of Social Interaction (Items 14, 15, 16, 17),
- Application and management of self-emotion (Items 5, 6, 7, 8).

III-2 The main categories for measuring Interpersonal skills were, Positive Personal Traits; Conduct; Self Confidence; and Negative Personal Traits (reverse coded).

Factor grouping for Interpersonal Skills:
- Positive Personal Traits (Items 5,7,9,12,13,14)
- Conduct (Items 1,6,11,15)
- Self Confidence (Items 2,4,8)
- Negative Personal Traits (Items 3, 10)

Results

Table 1
Percentage and Level of Emotional Intelligence in University Students

Emotional Intelligence	%	Level
Cognition and understanding self- emotion.	90	Very high emotional Intelligence
Application and management self-emotion (App SE).	87	High emotional Intelligence
Cognition and understanding Social Interaction.	90	Very high emotional Intelligence
Application and management self-emotion.	90	Very high emotional Intelligence

   The Table shows that the respondents scored high in all four subscales of emotional intelligence. Given that self-reported positive attributes tend to be somewhat exaggerated, it can be safely stated that the respondents were by no means devoid of emotional intelligence and its closely related employability skill of self-efficacy.

Table 2

Summary statistics of Emotional Intelligence scores of University Students

Factors	Mean	SD	Skewness	Kurtosis
Cognition and understanding of self-emotion.	4.50	0.47	-1.04	0.57
Application and management of self-emotion (App SE).	4.37	0.57	-0.94	0.30
Cognition and understanding of Social Interaction.	4.51	0.54	-1.07	0.10
Application and management of self-emotion.	4.51	0.54	-1.41	2.06

Table 2 shows the mean and standard deviation of scores of subscales of emotional intelligence. The level of cognition and understanding of self-emotion (M=4.50, SD=.47) is high as compared to Application and management of self-emotion (M=4.37, SD=0.57)

Table 3
Percentage and Level of Interpersonal skills in University Students

Interpersonal Skills	Percentage	Level
Positive Personal Traits	89	High
Conduct	82	High
Self Confidence	87	High
Negative Personal Traits	13	Low

The Table shows that students feel they possess sufficient interpersonal skills.

Table 4
Summary statistics of Interpersonal skills scores of University Students

Factors	Mean	SD	Skewness	Kurtosis
Positive Personal Traits	4.44	0.53	-1.08	1.06
Conduct	4.08	0.74	-0.58	-0.08
Self Confidence	4.37	0.57	-0.75	-0.15
Negative Personal Traits	4.35	0.78	-1.17	0.67

Table 5
Correlation among CGPA, Emotional Intelligence and Intrapersonal Skills

	1	2	3	4	5	6	7	8	9
1.CGPA	-	.080	-.091	.018	-.047	-.020	.030	-.038	.040
2. Cognition and understanding of self- emotion.		-	.406**	.377**	.367 (**)	.411**	.411**	.289**	.477**
3. Application and management of self-emotion (App SE).				.324**	.647**	.402**	.371**	.307**	.414**
4. Cognition and understanding of Social Interaction.					.386**	.669**	.401**	.457**	.477**
5. Application and management of self-emotion.					-	.382**	.413**	.428**	.540**
6.Positive Personal Traits						-	.550**	.496**	.556**
7.Conduct							-	.289**	.440**
8.Self Confidence								-	.398**
9.Negative Personal Traits									

Conclusions and Discussion

The high levels of self-reported interpersonal skills and emotional intelligence in the study sample can be interpreted in several ways. It is however, a source of concern that the summative evaluation of the respondents' academic achievement as depicted by their CGPAs, does not take these skills into account. The most significant finding of this study was that it revealed no correlation between the employability skills and academic achievement of the respondents.

The analysis of available data points towards certain serious issues concerning university education in Pakistan. Far from developing and encouraging employability skills, the students' academic achievement does not take into account or reflect their inherent or acquired positive traits. The study shows that a majority of graduates possess the required traits for employability,

although it needs to be further investigated whether these traits have been developed as a result of the teaching/learning process at the university or have been instilled through the family support system, which is a special strength of the Pakistani culture and society.

The findings serve to corroborate the observed inefficiency and inaccuracy of the student evaluation system that caters to an outdated teaching/learning process that mainly employs the Lecture method of teaching. The lack of physical resources, including classroom space, inhibits interactive modes of teaching and learning. The sharp contrast between the stated and the observed standards of educational facilities further undermines the real worth of graduates.

This study has been very significant in highlighting the core element impinging upon the aspired effectiveness of higher education in Pakistan. Setting aside the missing facilities, which have never historically been the most recognized cause of ineffectiveness, and can even be credited with some very useful innovations, the perception of teaching/learning as a unidirectional activity where students are evaluated on the basis of what has been transferred by teachers through text books, can be cited as the root cause of ineffectiveness. Public Sector Universities in Pakistan have been slow in responding to the educational needs of the 21st Century. They need to employ indigenous techniques for enhancing positive, personal traits of students. In Pakistan's context, the most visible and effective source of enhancing self-efficacy beliefs is the extended family system, upheld and maintained through cultural and religious values. This system has the potential for providing experiences in problem-solving, conflict-resolution, team-building, negotiating, effectively using verbal and non-verbal communication skills, taking initiative and learning to manage personal and group emotions.

Public Sector higher education in Pakistan needs to focus on enhancing and strengthening the employability skills of graduates by promoting lifelong learning strategies and adding value to university degrees.

The key issues that require immediate reform include:

- An evaluation system that encourages rote learning;
- The perception of University teachers as ultimate authority on all knowledge, which results in setting boundaries on students' learning;
- Hierarchical student/teacher relationship and a condescending attitude towards students;
- Restricted use of resources for students, such as library facility and reference materials;
- Lack of encouragement for creativity in students, especially for out-of-the-box research proposals through teacher-dominated, lengthy procedures;
- Weak or non-existent Quality Control of the teaching/learning and student-evaluation systems;
- Extremely inadequate shuffling of permanent staff through fellowship or faculty-exchange programmes, in order to reduce knowledge stagnation and inertia;
- Delays and flaws in strategic planning and decision-making caused by a few senior teaching faculty wearing a number of important-position hats;
- Pseudo quality checks defeating their own purpose by causing delays in achieving targets;
- Lack of answerability and penalties for persistent delays in planned academic targets by staff and administration.

Recommendations

The study results point towards a need for updating and reforming the students' assessment and evaluation system in Pakistan's Public Sector Universities. This would have a corresponding desired effect on the teaching/learning process and consequently on the quality of the graduates. The study also draws attention towards the need to redefine the roles of teachers and students in higher education as creators of new knowledge and not as a hierarchy for transfer of information. Students in higher education must be perceived as valuable resources for adding depth and meaning to the learning process.

The world has recognized the need of education for all in the 21st century but we feel that education can defeat its own purpose if educational objectives, long-term goals and the process of achieving them are not made transparent and auditable. Answerability in education, and specifically in Higher Education is the most urgent need of the day. Although the size and selection of the study sample does not justify a generalization of its results, it does point to the need for extensive research in this area.

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Integration of New Competency Skills in Teacher Education Curriculum at the National Open University of Nigeria to Meet Learners' Needs in the 21st Century

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Abstract

This paper discussed the integration of new competency skills in the curriculum of teacher education at the National Open University of Nigeria. Future learners were characterized as constructive thinkers that are self-directed and individuals who would seek information to create new ideas. It was pointed out that learners in the 21st Century are expected to be effective communicators and collaborative scholars who will share knowledge to improve the society. They will therefore have to be engaged in the use of social media such as Facebook, Twitter, YouTube, linked, chat room and understand how each medium could be used to enhance learning. The purpose of integrating the new competency skills in the teacher education curriculum is to meet the needs of learners in the 21st Century. The challenges of pursuing this were mentioned while some of the suggestions identified included the need for regular review of curriculum content and feedback from employers of labour on performance of graduates in the work place.

Keywords: Generic competency skills, Specific competency skills, Quality education offerings

Introduction

Poor methods of teacher preparation in most institutions of learning often lead to ill-equipped products (Jegede, 2005). This assertion has for sometime created serious concern for education planners and teachers in particular moreso when graduates have to undergo intensive training and retraining in the workplace before they are able to perform duties that are expected of them. Obviously, this can be interpreted as a disconnect between the workplace and institutions of learning which must be addressed. It was however, suggested by Ipaye (2005), that part of the solution to poor performance by young employees in the workplace may lie with schools providing a more relevant work oriented education that would provide skills of language, numeracy, team work and technics to access the labour market. It is also expected that schools would be able to provide the mechanism and leverage for the internationalization of educational offerings so that graduates would be able to move with their certificates across country borders and be employed.

According to Tchombe, (2010), there would only be improvement in the standard of acquiring useful knowledge when the paradigm is shifted from teacher dominated classroom practices to that of partnership between the teacher, the learners and their peers. Tessema (2006) subscribed to a classroom where the learner is seen as an active and socially constructed agent. The classroom is therefore expected to be a place for learning and creative activities through which learners would analyze and interpret their own experiences, make connections between these experiences and those of others, and in the process, reflect on both their consciousness and understanding. The afore mentioned assertions constitute a clear pointer to the fact that academic programmes in schools should reflect the needs of the society and mirror the changing demands in the workplace which today is skills-driven.

Issues that Would Determine Acquisition of the New Competency Skills

The 21st Century is important because it is full of challenges that require reform in teaching, learning and curriculum development that will necessitate the acquisition of new competency skills. Among some of the issues to be considered for the development and acquisition of the new competency skills in the 21st Century are:

- Teaching contents and materials that should reflect change in the mindset of the learners who would perceive change as an inevitable reality for development. This would determine the kind of relevant skills which learners need to possess.
- Information and communication technology as a crucial tool for adoption and use with emphasis on teaching, learning, scholarship (research) with transmission of reports and its implementation.
- Openness in the method of transmitting knowledge which requires institutions of learning to come out of the insulator mode of operation, be liberal, open minded and always make the system for teaching and learning open. There would be a need for collaboration with organizations who wish to exchange ideas and contribute to the activities of teaching and learning.
- Crave to create minds that would explore areas which would bring about positive and progressive change in the society. This would require use of lifelong learning approach to

education for continuous improvement in all institutions of learning particularly in the universities and other educational institutions.

-     Push to review the emphasis that has long been placed on the compartmentalization of subjects into arts/science, etc. which for sometime has made teaching and learning to be redundant instead of exploring and imbibing the interdisciplinary approach.

Identification and Description of Competency Skills

Beneitone (2012) in his report on the Tuning Africa Project, identified two types of competences. The first one is the generic competences which refer to attributes and capabilities that are expected from graduates in any subject area. According to him, such competences are in the area of capacity to learn and capacity for analysis and synthesis. The second group of competences which give identity and consistency to particular degrees in teacher education programmes, are clearly linked to the world of professional practice. He further explained that in order to make graduates better equipped for the rapidly changing work environments, competences must evolve in conceptual terms in higher education. Hitherto, the nomenclature has evolved over time to include the terms Personal Transferable Skills reported by Drummond et al. (1998), Core and Generic Skills (Bennett, Dunne & Carré, 1999), Generic Capabilities (Bowden and Marton, 2000), Graduate Capability Development (Kift, 2002), Graduate Attributes Movement (Chanock, 2003), Graduate Skills (Chanock, 2004) and Generic Graduate Attributes (Barrie, 2005, 2006, 2007), Gairín and García-San-Pedro (2010). All the afore mentioned studies indicated that competence is the ability to successfully address the demands of contexts of uncertainty with the product as an original and global act; whereas according to Bowden and Marton (2002), specific competences should have the following features:

a) be agreed to by a university community;
b) be developed at university;
c) transcend disciplinary knowledge;
d) prepare graduates as agents for the social good in an uncertain future

Competences for Teacher Education

The process of defining competences within the context of Teacher Education in Africa was inspired by Nelson Mandela who stated that, "education is the most powerful weapon which can be used to change the world". These words suggest that teachers have a great responsibility to serve as agents of change. Similarly, Beneitone (2011) posited that in the process of defining specific competences, the following should be borne in mind: (i) what change is needed in the society? (ii) What change do teachers need to mediate? There are at least two areas where change is greatly needed particularly in Africa.

These areas are:

- Socio-economic development and growth, with a precise focus on fighting poverty; and
- Conflict resolution and reconciliation for sustainable and peaceful living environments across the continent.

Seventeen key competences were identified by Tuning Africa Project (2012) as follows:

1. Subject knowledge /understanding the discipline
2. Applying Information and Communications Technologies
3. Developing resources and instructional materials
4. Critical thinking, problem solving, creativity, reflection
5. Ability to assess and evaluate, including self and others
6. Counsel, guide and resolve conflict (peace education) for complex situation
7. Interpret curriculum documents, information and sources, and see them as a roadmap
8. Project management
9. Be able to choose, use and design innovative teaching and learning strategies
10. Be able to carry out research (observe, describe, analyze, …)
11. Understand and apply policies and regulations
12. Ability to identify and deal with students with special needs, gifted and otherwise
13. Ability to work in a team
14. Professionalism, ethics and values: ability to understand and abide by the ethics and values of the teaching profession
15. Ability to become a lifelong learner
16. Ability to develop competencies for employability in students (ability to enhance employability in one's own profession)
17. Ability to inspire self-confidence in the learners

Table 1: Student Population on the Basis of Teacher Education Programmes at the National
Open University of Nigeria

S/N	Programmes	Number of Students
1	BA (Ed) Early Childhood Education	732
2	BA (Ed)English	1,090
3	BA (Ed)French	30
4	BA (Ed) Primary Education	1,411
5	B.Sc. (Ed) Biology	614
6	B. Sc (Ed) Chemistry	143
7	B.Sc (Ed) Computer Science	325
8	B.Sc. (Ed) Integrated Science	80
9	B. Sc. (Ed) Mathematics	276
10	B.Sc (Ed) Physics	103
11	B.Sc (Ed) Agricultural Science	274
12	B.Sc. (Ed) Business Education	1,968
13	M.Ed Educational Admin. & Planning	2,580
14	M.Ed Educational Technology	340
15	MEd Science Education	408
16	PhD Science Education	1

Total number of course materials in the National Open University of Nigeria is 1419 out of which 787 are made available to OER and for anybody to access. Study materials (in all formats, i.e, print, CD, Braille, web- based) are also available in all the teacher education courses. Table 1 above shows the number of programme in which teachers are produced to necessitate curricular review for the integration of the new competency skills.

New Competency Skills

New competency skills refer to a dynamic combination of knowledge, understanding and abilities that are responsive to the changing needs of the society which learners have built during a period of study. Some of these competency skills are,

- Ability to read, write and compute with ICT skills to reflect the needs and challenges of today
- Ability to use social media effectively for learning
- Use of initiative
- Creativity
- Determination to succeed
- Need for adventurism
- Self analysis
- Critical thinking

- Discovery
- Ability to work alone when necessary in an environment that is independent of close supervision
- Ability to work in group for acceptance of idea and exchange of knowledge.
- Ability to pose questions
- Investigate issues
- Be self-directed,
- Create new ideas
- Be an effective communicator ,

Acquisition of the above skills will entail effective use of social media such as facebook, twitter, YouTube, linked, and chat room should be encouraged. By this, learners would be exposed to becoming effective communicators and collaborative scholars who will share knowledge to improve the society.

Strategy for Integrating New Competency Skills in Teacher Education Curriculum Development in the National Open University of Nigeria
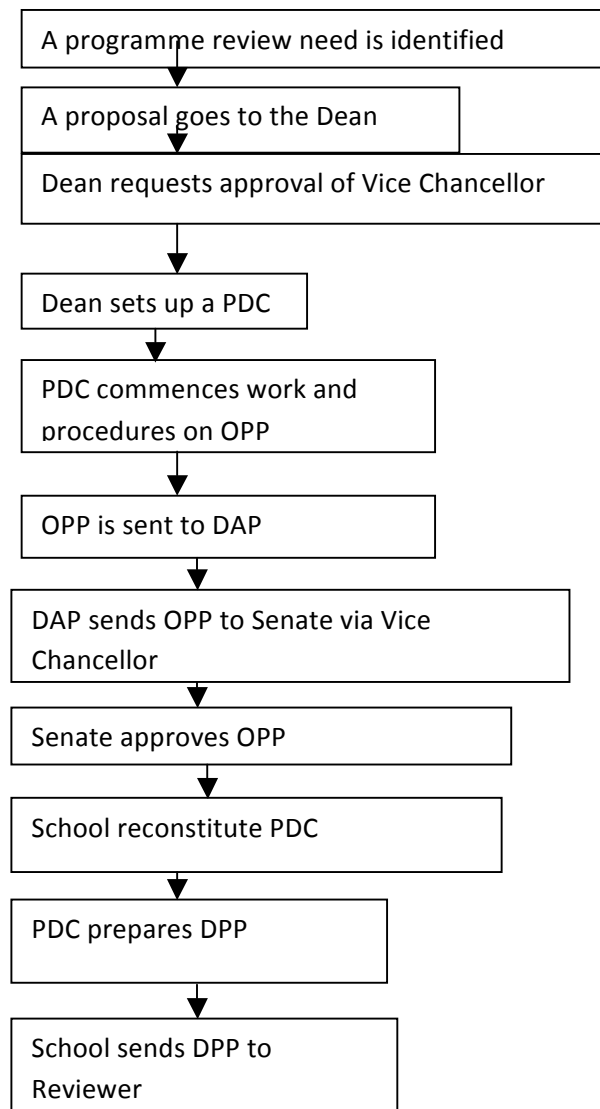
The competences enumerated above indicate a need to modernize and broaden the scope of Teacher Education curriculum so that it can become responsive to the professional needs of teachers and fulfill the expectation of students, parents, employers of labour and the society in the 21st Century. This has to be carried out in line with the model of curriculum reform proposed by Posner, Strike and Hewson (1982 quoted in Chiromo (2011)) where it was stated that, "four conditions must be met for the successful implementation of a curriculum reform, namely:
.
- stakeholders (students, parents, employers and educators) must be dissatisfied with the existing curriculum and start to agitate for an alternative curriculum;
- for the stakeholders to accept the alternative curriculum, it must be intelligible, i.e., it should make sense to the stakeholders;
- the alternative curriculum must be plausible and appear to have the capacity to solve the problems generated by its predecessors; and
- the alternative curriculum must be fruitful, opening up new areas of inquiry.

The following is a description of the steps to take in carrying out the integration of the new competency skills in the teacher education curriculum of the National Open University of Nigeria:

Sequential steps in the Programme Curricular Development Process in the National Open University of Nigeria (NOUN)

Figure 1: Outline Programme Proposal (OPP)

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┌──────────────────────────────────────┐
│ A programme review need is identified │
└──────────────────────────────────────┘
                 │
                 ▼
┌──────────────────────────────────────┐
│ A proposal goes to the Dean          │
└──────────────────────────────────────┘
                 │
                 ▼
┌──────────────────────────────────────┐
│ Dean requests approval of Vice Chancellor │
└──────────────────────────────────────┘
                 │
                 ▼
┌──────────────────────┐
│ Dean sets up a PDC   │
└──────────────────────┘
                 │
                 ▼
┌──────────────────────────┐
│ PDC commences work and   │
│ procedures on OPP        │
└──────────────────────────┘
                 │
                 ▼
┌──────────────────────────┐
│ OPP is sent to DAP       │
└──────────────────────────┘
                 │
                 ▼
┌──────────────────────────────┐
│ DAP sends OPP to Senate via Vice │
│ Chancellor                   │
└──────────────────────────────┘
                 │
                 ▼
┌──────────────────────────┐
│ Senate approves OPP      │
└──────────────────────────┘
                 │
                 ▼
┌──────────────────────────┐
│ School reconstitute PDC  │
└──────────────────────────┘
                 │
                 ▼
┌──────────────────────────┐
│ PDC prepares DPP         │
└──────────────────────────┘
                 │
                 ▼
┌──────────────────────────┐
│ School sends DPP to      │
│ Reviewer                 │
└──────────────────────────┘
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Source: Directorate of Academic Planning, NOUN, 2014

Figure 2: Detailed Programme Proposal (DPP)
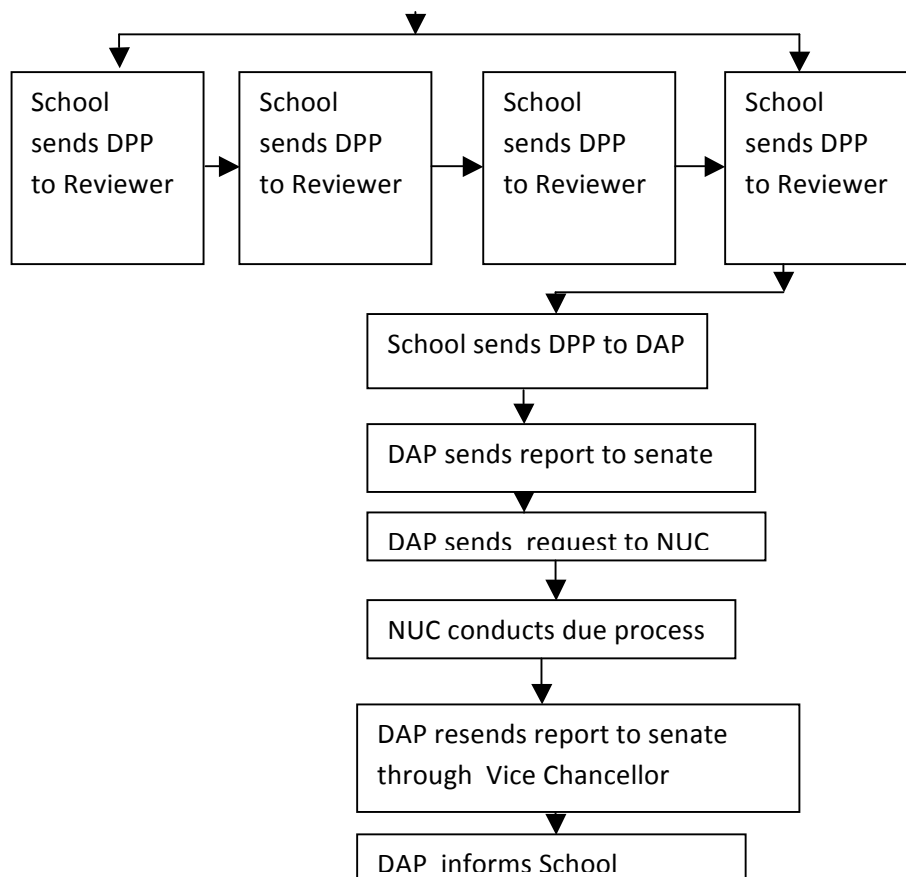
Source: Directorate of Academic Planning, NOUN, 2014

Updating the teacher education curriculum is done by reviewing the programme at the request of the Head of programme to the Dean of School giving reasons why a review is necessary. Figure 1 above is a summary presentation of the procedure starting with the Outlined Programme Proposal (OPP) while figure 2 is on the Detailed Programme Proposal (DPP).The exercise which starts from the school requires the approval of the University senate for the review to be acceptable and to take effect. With the above approach one would therefore be sure that, before an academic programme is rolled out, course components are adequate and acceptable to the stakeholders.

Another strategy is structuring Tutor-Marked Assignment to reflect emphasis on the development of competences among trainee teachers. Competences can also be brazed up by ensuring that substantial percentage of practical/ project work and laboratory activities are equivalent in weight to other academic activities in teaching and learning. The contents for the course materials should be transformed properly to reflect distance mode and ensure that the unit structure is followed in the following ways:

1) Introduction
2) Objectives
3) Content Exposition
4) Revision Questions
5) In-text Questions
6) Summary
7) Terminal Exercises
8) Supplementary Materials
9) Assignments
10) Suggested Readings/Reference Materials
11) Learning Activities
12) Key Words

Challenges

Some of the challenges that could crop up in the process of integrating new competency skills in the teacher education development are:

- Co-operation of academics in teacher education to quickly embrace need to review the curriculum to include the competency skills
- Timely co-operation of employers of labour to provide feedback on the performance of teachers on the field of practice
- Unstable internet connectivity for Information and Communications Technology (ICT) exercises.

Suggestions on How to Surmount the Challenges

To surmount the above challenges, it is important to consider the following points:

- Need for regular review of curriculum content to ensure that it is responsive to competency skills needed by learners.
- Need to include employers of labour and students in curriculum development
- Need to be current in the use of modern technology for education
- Encourage learners' use of the skills well before graduation
- Request for regular feedback from employers of labour on performance of graduates in the workplace to confirm relevance of competency skills acquired.

Conclusion

The integration of competency skills in teacher education development is crucial because it would ensure the production of teachers that would be acceptable to employers and satisfy learners' needs in the 21st Century society.

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Changing Thai for Communication Instructional Model to Enhance Communication and Collaboration Skills in 21st Century: Change for the Digital Age

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Abstract

General Education aims to enhance graduates' desirable attributes reflecting the identity of institutions come from their philosophy and mission as well as Thai Qualifications Framework for Higher Education. Content course should be emphasized on cultivating the academic covered sciences on human, society, and natural world. Important skills focused to help student's sustainable survival were communication and collaboration skills. If these had been integrated into the instruction using social media, it would help students get higher achievements. Thai for communication instructional model situated in General Education divided into the four areas of communication skill development: listening, speaking, reading, and writing. Each area is included five procedures of collaboration skill development: 1) Decision, 2) Plan, 3) Implementation, 4) Acknowledge, and 5) Evaluation.

Keywords: Thai for communication, Communication skill, Collaboration skill, 21st Century

Introduction

In the 21st century, communication and collaboration skills are pair of the important and essential ones to prepare students for the future. They are one of the skills of learning and innovation skills which are in the core of 21st century skills. Comparatively, it can be seen that the students need to use these skills for lifelong learning throughout their lives and to work creatively for worthy living in the work globe. Instruction will be designed for students to learn the skills on hand as they are not taught directly but held process to be learned (Panich, 2012). Another point worthy of consideration is the 21st century world need more extensive and profound collaboration skills than the earlier period as a result of the even more progressively digital and communication technology in accordance with Hanover Research (2011: online) has brought different needed skills for the 21st century life to synthesize and arrange the skills as frequency based on the concepts of individual organizations or agencies; the Partnership for 21st Century Skills, Tony Wagner's. Global Achievement Gap Seven Survival Skills, enGauge, Iowa Essential Concepts and Skills – 21st Century Skills, Connecticut Department of Education's 21st Century Skills and the Assessment and Teaching of 21st Century Skills (ATC21S) had conducted the concepts to apply and extend, they found all institutions mentioned collaboration as it firstly was the most important skill.

Collaboration will encourage students to have completed skills, support the performance to achieve objectives and get results along targets as well as is fundamental to self-development towards accountability. When the students involved in the collaboration, goals and objectives were determined together, communicate to share information with each other and although the number of students is less, they can work effectively, resulting in a more complete success (McCloskey & Mass, 1998). It is clear that collaboration makes students learn, share experiences, promote their knowledge and acquire expertise in various skills, for example, communication one.

Since the growth of Information and Communication Technology (ICT) makes people can get information and quickly communicate through a computer network for exchanging information between them; such as, texts, audio, images and moving pictures. This information exchange may be a real time communication or synchronous (communicate occurs simultaneously) and an asynchronous communication (communication occurs in different time) by using computer as a way to communicate effectively, this is the alternative choice of the recent instruction that enhance communication skill via computer which transmits content or support the management and communicate in courses. Information technology in the content transmit dimension is used instead of textbooks and students. The communication dimension is used to reduce time constraints in the encounter between teachers and students including other management.

This is chiefly seen when ICT has become a part of students' life and changed their behaviour in online world into a social network that is widely used throughout the continually computer technology development which is likely to become the primary medium for future people. Notice that senders can share any messages in various forms to online community or virtual community. People can get to know, exchange ideas, share experiences, connect in either direction, and has been expanded through a communication network via using Social media which is a communication model to reach people at all levels, therefore, if teachers could use

sources and tools of social media to support their own teaching, it would give learners access to resources and interact with teachers and other students comfortably like chatting with friends or online working together without any restrictions on time and place.

In general educational system, if considering instruction process, it had the elements and procedures like a communication process. That is teacher will act as a sender and student act as a receiver which requires media as a medium and instructional performance is measured by the quality and quantity of the students' behaviour change. In addition to combine with the technology improvement has made the communication process from one way communication with distinctly sender and receiver to the state of communications technology interacting with each other between related individuals more specifically, communication via social media turns the sender or the source and receiver to a Participant called Participatory communication. Another important point is with those students in a class or in social media are constructing more knowledge. Hence, Thai for communication course management in higher education aimed to provide students with knowledge as a tool for learning and communicating with others in daily life effectively should pave the basic knowledge of Thai language skills and use communication and collaboration skills to build higher knowledge for all profession of students.

An exception can be found in the fact that Thai for communication instructional problem is currently no study in Thailand to develop the educational model to enhance communication and collaboration skills on social media. Then, researcher aims to design and develop a Thai for communication instructional model based on participatory communication on social media to enhance communication and collaboration skills in the 21st century of undergraduates. This developed instructional model will be an important approach for Thai for communication teachers in switching their roles from senders to participants with learners through social media and teaches Thai for communication course to enhance communication and collaboration skills to meet the instruction in 21st century

Theoretical Framework

Participatory communication

Communication is a vital part of participation approach. If the development means to engage with people who want to get the most improvement, one needs to start from the actual needs or problems. These individuals must recognize their real needs and can inform their own real problems. Nevertheless, in a large level, these people cannot do because they are not seriously involved in the development for solutions (Servaes, Jacobson, & White, 1996). Participatory communication is a two-way communication in the information exchange by all parties can switch roles as "messengers" and "recipients" may be called "participants" through communication in various forms based on the foundation of opinion respect, mutual equality, and collaboration to bring about the conclusion of discussion to the decision-making process in various groups harmoniously (Wiboolyasarin, 2013)

Another key part of participatory communication is the process of sharing ideas, listen together, respect for others' ideas, awareness of rights and responsibilities of community members, including social issues analysis, information exchange, as well as the process to search approaches and decisions together based on the background information. Participatory communication of members in society will lead to public conscientization and learning process between them to contribute the development of appropriate social change and a consensus of the members in society.

Kaewthep (2004) discussed about participatory communication that owner will take the initiative to issue/problem in the first step. Then plans how to do or solve the problems in step two as well as proceeds the operations in step three, which will send a communications partner to participate. When completed, in step four and five, it will be the duty of the owner once again. In short, participatory communication process can be divided into five steps: 1) decision 2) plan 3) implementation 4) acknowledge and 5) evaluate.

Social media

Social media is a communication channel between senders and receivers using various applications on computer via the Internet network, combined with the use of Web 2.0 technology that allows users create and share content to other users in the nature of interaction between them and become a society on a virtual space.

Social media users can act as self- generated content editors and share them with other people freely; no need to be considered from individuals, or any organizations. This is different from traditional media that content must be checked before publishing, and production is done only the man passed a direct production training as well as also restrictions on the date and time.

We can classify social media into seven categories based on the characteristics of applications as follows: 1) Social network is to create a personal web page to communicate with friends and other people who may not know each other before. 2) Blog is an online journal to tell the story, experience, knowledge which other users are welcome to comment on the journal. 3) Wiki is to modify and share news or content and can edit them to be the most complete. 4) Podcast is to listen to the audio or watch video over the Internet provider. 5) Forum is a public space for users to comment on the issues arisen in society. 6) Content community is a website with content sharing based on unique characteristics of that community such as photos, videos, documents, and etc. 7) Micro- blogging is the integration between social networks with small blogs that users can inform information, change their status, activities to do at the time by limiting the amount words of not more than 140 characters

Communication and collaboration skills

World in the 21st century requires more extensive and profound communication and collaboration skills than the earlier period as a result of digital and communication technology. Communication and collaboration skills design should be set the target and methods (Panich, 2012) as following:

Target of communication skill: have a communicate skill clearly.

- Compile ideas and views as well as to communicate as easily understood and has the ability to communicate both verbal and written, and non-verbal or written such as gestures, facial expressions.

- Listen effectively comes from intention in communication to understand the means of attitude and intention values.

- Use communication to achieve multiple goals, such as informing, motivating and persuading.

- Communicate effectively in various environments, including multiple languages communications.

Target of collaboration skills: have a skill in collaborating with others.

- Demonstrate the ability to work effectively and respect with diverse teams.

- Show flexibility and compromise in order to achieve a common goal.

        - Express a shared responsibility in the work to do together as a team and appreciate the role of the other members in team.
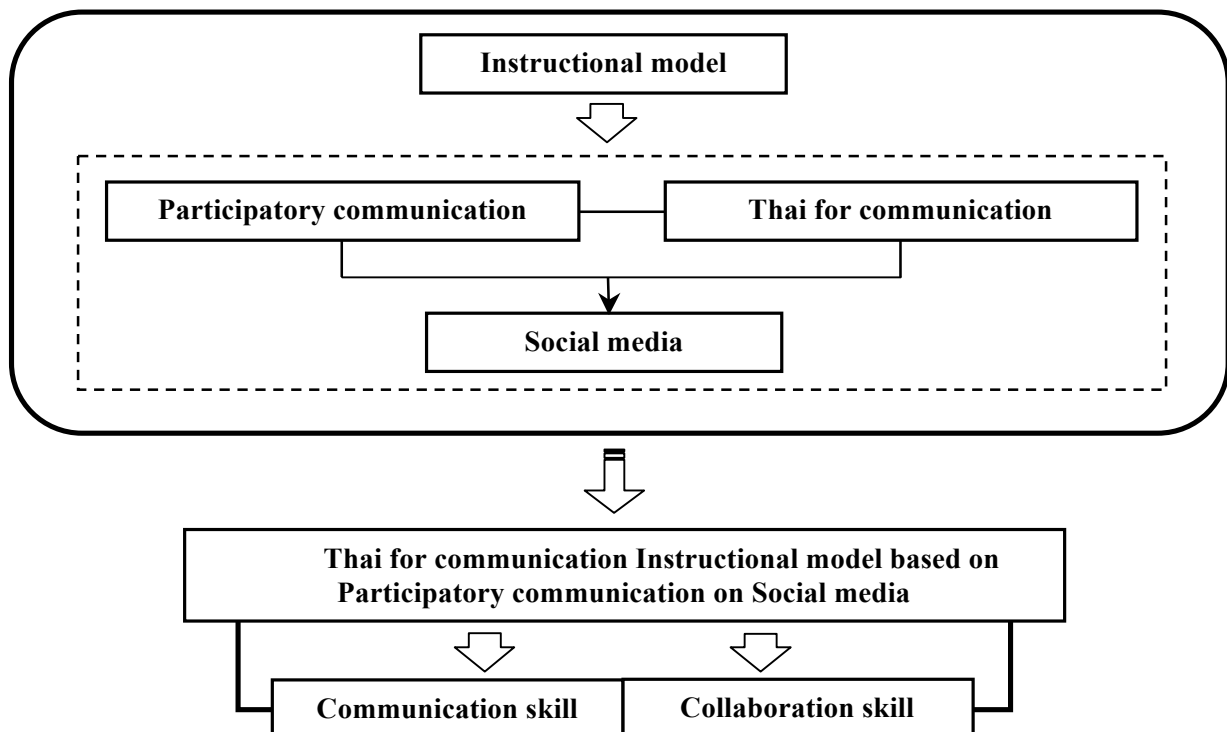
        Enhancing communication and collaboration skills includes the key approaches as follows: operation plan, ability to communicate and share ideas during the operation, and ability to collaborate with others. By the same token, to prepare a plan for operation, student will be required to participate in the collaboration planning, and can follow the created plan strictly. For communication skill between collaboration, students can post principled and reasonably comments while one can accept other opinions. For collaboration skill, students accept the group's consensus and are able to perform the duties assigned willingly and capably.

Thai for communication

        Thai for communication course is one in language subject group within General Education that freshman year undergraduate students of every university in Thailand must enroll to prepare for them to use as a base in the quest for knowledge at a higher level, also practice various communication skills, included listening, speaking, reading and writing to students as a tool for educational purposes along with adapting to the real life. Looking for many Thai for communication course descriptions, it is obvious that the focal point of this course is to enhance communication skills in listening, speaking, reading and writing as a knowledge base for studying other subjects of each program.

Proposed Framework

        From theoretical framework above, it can be proposed and shown below.

Results and Discussions

The results from gathering and integrating theoretical framework of Thai for communication instructional model based on participatory communication on social media can be changed communication and collaboration activities in 21st century as detailed in Table 1.

Table 1 Procedures and activities of Thai for communication instructional model to enhance communication and collaboration skills in 21st century.

Thai for Communication	Procedure	Social media	Communication and collaboration activities
Listening	Decision	Forum	Students in each groups chooses interesting VDO clip to listen on "Youtube" together.
	Plan	Forum	Students in each groups plan the listening procedures and post example VDO clips on "Proboards"
	Implement	Content community	Students in each groups listen VDO clips in order on "Youtube" and make notes of what they got from listening on
	Acknowledge	Podcast	Students in each groups post audio files as notes on "Voicethread" and other student listen and comment
	Evaluation	Blog	Teacher evaluates students' activities by posting feedback on "Blogspot" of each group
Speaking	Decision	Content community	Students in each groups study how to speak from well-known speakers on "Youtube" and decide to choose their unique speaking.
	Plan	Blog	Teacher determines speaking topic for students to plan how to speak well on "Blogspot"
	Implement	Social network	Students practice their speaking with friends or teacher via "Skype"
	Acknowledge	Social network	Students take turn commenting towards friends' speaking via "Skype"
	Evaluation	Blog	Teacher evaluates students' activities by posting feedback on "Blogspot" of each group
Reading	Decision	Social network	Students in each groups read reading skill development on "Facebook" that teacher created, then decide to choose e-Book that is consistent with the guidelines development.
	Plan	Content community	Students plan and search interesting e-Books on "Issuu".
	Implement	Content community	Students read e-Books on "Issuu" together.
	Acknowledge	Blog	Students make notes of what they got from reading on "Blogspot"
	Evaluation	Blog	Teacher evaluates students' activities by posting feedback on Blogspot of each group
Writing	Decision	Content community	Students in each groups search and decide to choose good written works on "Issuu"
	Plan	Forum	Students in each groups brainstorm to plan how to create written works on "Proboards"
	Implement	Wiki	Students in each groups create group written works on

			"PBWorks"
	Acknowledge	Wiki	Students in other groups comment towards their group written works on "PBWorks"
	Evaluation	Blog	Teacher evaluates students' activities by posting feedback on "Blogspot" of each group

Communication and collaboration activities in the 21st century, teachers should divide the class into groups and identify the role of each student towards their own group and practice them to learn using social media for all types since the first period of instruction. For Thai for communication learning management in Thailand would take sixteen weeks per semester, development on each skill, it should take four weeks per skills. Emphasis on communication and collaboration between student and student within the group and outside the group as well as students and teacher, teacher can customize the Thai language content to develop language skills focused the given instructional model above.

Conclusions

Course content is important but not sufficient for learning to live in the 21st century. Current content or subject matter learning should be learned from research of students, teacher will recommend and design activities that allow each student evaluate their own learning progress as appropriate courses in the 21st century. Therefore, learning in the 21st century must transcend subject matter to learn "21st Century Skills" that teachers need to design learning and facilitate learning for the students to learn from the active class, and then learning takes place within students' mind and brain.

This developed instructional model will help students enhance communication and collaboration skills in the 21st century which is the guideline for the 21st century teacher who will transform their traditional instruction to the digital age in order to develop students' skills to have living skills and they have enough potential to compete in the labour market. Especially, when students enhance communicate and collaboration skills, it can be ensured that they have certainly succeeded in personal life and work life in the 21st century.

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Acknowledgement

About Author

Dr.Watcharapol Wiboolyasarin was born in Bangkok, Thailand on September 4th, 1986. The author graduated from Ramkhamhaeng University, Thailand on October 2005, a Bachelor of Arts with a major in English and minor in mass communication and also from Chulalongkorn University, Thailand on March 2009, a Bachelor of Education (secondary education) with two majors in Thai language and educational technology (1st class honor degree). In 2010, Watcharapol received a Master of Arts in the field of teaching Thai as a foreign language from Srinakharinwirot University and continued a Doctor of Philosopher in the same year at Faculty of Education, Chulalongkorn University, Thailand. In 2013 Watcharapol has been titled a Ph.D. in the field of Educational technology and communications.

He worked as a Department Chair and a Full-time lecturer of Thai, Faculty of Humanities and Social Sciences, Suan Dusit Rajabhat University, Bangkok, Thailand since 2011. In some semesters, he has been invited as a Part-time Lecturer at Innovation Learning Centre, Srinakharinwirot University and Faculty of Arts, Panyapiwat Institute of Management, Thailand. Some relevant academic works are "Blended Instructional Model Based on Participatory Communication with Round Table Using Social Media to Enhance Creative Criticism Writing Ability for Undergraduate Students: A Synthesis and Proposed Model" (IJEEEE, vol.2 no.6 2012) and "Blended Problem-Based Instructional Model via Facebook Application on Mobile: Are You Ready for m-Learning?" (IJEEEE, vol.4 no.2 2014).

Faculty and Student Perceptions of Motivational Traits that Contribute to Completion Rates in Online Degree Undergraduate Programs

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Abstract

Limited research has been conducted regarding the alignment or misalignment of student and faculty perceptions of traits that motivate students to complete an online learning degree. While studies have focused on retention and attrition rates of online students, little research has compared and contrasted student and faculty perceptions of internal characteristics that drive a student towards online degree completion.

This paper presents a study that investigated characteristics that motivate students to complete online learning degrees by way of quantitative and qualitative analysis. Three research questions were explored through a concurrent embedded mixed methods study. One hundred and three faculty and alumni students from one nationally accredited online university participated in this study. To discover student and faculty perceptions, the Intrinsic Motivator Instrument (IMI) and a series of open-ended questions were administered to both faculty and graduated students of the same university. To add richness to the study, nine faculty were interviewed regarding their perceptions of student characteristics that contribute to retention in online learning degree programs. The qualitative results revealed a misalignment of student and faculty perceptions regarding the purpose and importance of pursuing and online degree. Furthermore, quantitative analysis revealed that the null hypothesis was rejected in particular subscales of the IMI survey.

Keywords: Online learning, intrinsic motivation, faculty perceptions, student perceptions

Retention and Attrition in Online Degree Programs

Various reasons lead to students enrolling or dropping out of online degree programs. Jenkins (2012) notes that while enrollment in online learning degree programs is rising, attrition rates are also rising. There has been significant research on extrinsic factors that influence retention or attrition rates in online degree programs (Aman, 2009; Bebawi, 2005; Bedore, 2006; Boston, 2010; Brown, 2011). However, more research is needed in regards to intrinsic motivational characteristics and traits that are evident in students who have complete an online degree program. Ascertaining the alignment or misalignment of student and faculty perceptions in these programs could help universities understand how to retain students and keep enrollment and graduation rates high.

Factors That Affect Motivation, Perceptions and Retention

Many different environmental factors influence a student's ability to complete any college degree program. Inflated enrollment in online degree programs could be influenced by the differences in environmental factors that influence or motivate a student to complete their degree. Environmental "factors" such as dorms, meal plans, housing expenses, etc., are simply not in existence for many online degree program students. The non-existence of these factors could potentially be what drives many students to enroll and complete an online learning degree (Boston, 2010). Other factors such as multiple careers, family obligations, working full time in addition to attending school, and paying tuition affect retention rates and length of time it takes to achieve an online degree for older students (Boles, Cass, Levin, Schroeder, & Smith, 2010).

Patterson and McFadden's (2009) study on attrition rates and environmental factors in online degree programs versus land based institutions showed a significant difference in attrition rates between the two. In that study, attrition rates were impacted by internal course structure and online formatting of the courses (Patterson & McFadden, 2009). Evan's (2009) qualitative study on external and internal factors in online degree programs showed that many students value flexibility in course structure and timing, convenience in synchronous and asynchronous online communication, and the need for positive interaction with peers and faculty during course facilitation. Boles, Cass, Levin, Schroeder, & Smith (2010) suggested that online degree programs are strengthened through strong faculty support of the students, program coordinators who provide student help, and peer mentoring students who guide online discussions, deliver, accountability, and assist with technology issues. Brown (2011) suggested that internal factors of poor time management skills, and lack of collaboration and community in the online environment affected a student's ability to complete an online course.

A qualitative study of student perceptions of online learning as related to attrition and completion rates in online degree programs showed that instructional delivery and course structure had a significant and direct impact in the synchronous delivery of the online course (Kyger, 2008). Students believed that an engaging, stimulating learning environment is largely determined by the level of teacher enthusiasm and rigor and energy in instructional delivery (Kyger, 2008). Dobbs, Waid, and del Carmen (2009) found lack of community among students, teaching style, and limited synchronous interaction with the professor contributed to negative student perceptions regarding online course completion. MacIntyre (2010) noted that a student's

intrinsic motivation to learn is directly dependent on the student's capability to assimilate information. Therefore, it is essential that course designers, facilitators, and even students understand the inner workings of a text language based learning environment in order to foster positive self-perception in learners (MacIntyre, 2010).

Theories, Frameworks, and Models

A student's desire to learn can be fostered through providing opportunities of engagement in the classroom. Winkler (2011) noted that online inquiry learning involves three steps: questioning, researching information through technology, and processing new knowledge. Self-directed learners must be intrinsically motivated to self-assign goals, complete assignments, independently complete tasks, and meet deadlines (Winkler, 2011). Kempler (2006) noted that it is more difficult to intrinsically motivate students to learn in the online environment due to isolation at the computer, technology difficulties or lack of technology skills, and lack of motivation due to distraction of other websites and applications.

Two theories influenced by self-efficacy concepts are the achievement goal theory (AGT) and the self-determination theory (SDT). The achievement goal theory describes an approach or outline towards achieving a particular goal (Ciani, Sheldon, Hilpert, & Easter, 2011). Zusho and Clayton (2011) noted that the achievement goal theory helps identify the explanation behind why a student is motivated to achieve or perform. This theory suggests that setting multiple goals initiates the action needed to complete the goal including intention, reason, and development of the plan (Bjornebekk, 2008).

The self-determination theory suggests that if emotional and psychological needs are met, the learner has an increased chance to succeed and meet goals in the learning environment through autonomy, competency, and connection to others (Niemiec et al., 2006).   Ryan and Deci (2008) believe that the intrinsic motivation to learn is synonymous with a learner's own feelings of autonomy in capabilities and abilities to meet the expected goals and outcomes. When psychological needs are met, active learning can occur, producing positive results (Ryan & Deci, 2008). Darner (2012) found that when a student's learning environment is infused with SDT model practices and concepts, students initiate choice, self-reflection, and produce feelings of self-confidence.

The Peer Learning Framework is a community of practice that substantiates the roles and interaction peer leaders and peer learners based on a social constructivist viewpoint (Adam, Skalicky, & Brown, 2011).   Teacher involvement contributed to effective peer learning and helping students achieve course completion (Adam et al., 2011). Instructor communication and best teaching practices contributed to levels of student motivation towards student collaboration and completing assignments towards course completion (Adam et al., 2011). Instructor communication techniques including inquiry, prompting, and clarifying course curriculum provided motivation for students to use their own communication techniques throughout the course (Adam et al., 2011).

The constructivist viewpoint encourages student autonomy over learning and achieving academic success by providing opportunities for students to be inspired and motivated to learn (Miller, 2008). According to the National Survey of Student Engagement, community building activities and collaboration directly increase student motivation, drive, and academic grades (Kuh, 2007). Koohang, Riley, Smith, and Schreurs (2009) have done extensive research on how

constructivism is the foundation for the e-learning process. Koohang et al.'s (2009) e-learning constructivist model includes three tiers: design of learning activities, learning assessment, and instructor's roles in the e-learning process. Each tier is only successful if it utilizes the constructivist approach of learning through prior experiences and pre-exiting knowledge (Koohang, Riley, Smith, & Schreurs, 2009).

The Community of Inquiry Framework (CoI) consists of three components: the social, cognitive, and teaching presences. These three components are separate entities, yet depend on each other for survival in the online teaching and learning environment. Opportunities should be given to for students to exercise social and cognitive constructs so that student self-efficacy, perceptions, and attitudes about the course will be positive (Leong, 2011). Leong (2011) believes that retention in online programs will occur through student satisfaction regarding student and teacher community building constructs. The CoI Framework provides understanding of online learning as it relates to student achievement (Shea & Bidjerano, 2012).   Shea & Bidjerano (2012) note that a strong collaborative student-teacher bond must be formed in the online learning environment to ensure student success. Pollard, Blevins, Connor, and McGovern (2013) quantitative study revealed that the teacher, social and cognitive presence components from the CoI all directly affected student motivation. A strong connection was found between teacher presence and student motivation and social presence and student motivation to learn (Pollard, Blevins, Connor & McGovern, 2013).

As online learning has developed, the community of inquiry framework has evolved and transformed. Gregori, Torras, and Guasch's (2012) research regarding the CoI and online education explored how the technological presence impacted the cognitive and social presence in the online learning environment. Technology and online education changes the dynamics and exchange of information between faculty and students. Thus, a student's motivation to learn also changes in the context of what motivates students in the independent, self-directed online learning setting (Peiris & Gallupe, 2012).

Garrison (2011) developed the conceptual framework for e-learning out of the collaborative constructivist ideas of teaching and learning and Dewey's research regarding blended individual and social perspectives to develop new knowledge. The CoI's three components are adapted to text-based and verbal communication in the online teaching and learning environment (Garrison, 2011).   Online learning requires students to interact, respond, and learn from each other through a variety of instructional practices that could include video conferencing, text-based communication, project critiques, and discussion postings (Smith, 2011). These online instructional practices often occur with students never seeing each other therefore students must be able to quickly gauge trust and comradery with each other for learning to occur through student led communication (Smith, 2011). Mistrust can develop when students feel they cannot rely on other students or their teacher for support, insight, and learning in a collaborative environment. Inevitably, this turns into lack of motivation to learn or complete the tasks with the online course structure (Smith, 2011). Chen and Jang's (2010) online model explores how learning outcomes such as engagement, achievement, learning and satisfaction are affected through need support, need satisfaction, and self-determination outcomes to succeed. Yoon and Rolland (2012) found that a student's self-confidence and ability to connect with peers greatly affected learning capacity in the online setting. The student's ability to trust others in the partaking of ideas, contextual connections, and comfort level of openness to share influenced the ability to maximize learning (Yoon & Roland, 2012).

The Study

Three research questions were explored in this mixed methods study:

1. What are the perceptions of students regarding motivational characteristics and traits students possess that allow them to complete an online degree program?

2. What are the perceptions of faculty regarding motivational characteristics and traits students possess that allow them to complete an online degree program?

3. What is the difference between the Intrinsic Motivation Inventory (IMI) scale rankings of students who have graduated from an online college degree program and faculty who instruct students in an online college degree program?

The following hypotheses were addressed for Research Question 3:

H_o = There will be no statistically significant different between the IMI scale rankings of students who have graduated from an online degree program and the IMI scale rankings of faculty who instruct students in an online degree program.

H_1 = There will be a statistically significant different between the IMI scale rankings of students who have graduated from an online degree program and the IMI scale rankings of faculty who instruct students in an online degree program.

Sixty-eight out of four hundred seven alumni from undergraduate online degree programs in one national online university responded by completing the IMI survey and open-ended questions. One hundred three of the three hundred ninety-eight faculty members who had taught online degree programs from one national online university responded by also completing the IMI survey and open-ended questions. Of the thirty-six faculty who elected to be interviewed, fifteen were selected using a random number generator, and nine faculty members responded to the request.   Demographic selection of participants in the study was within the constraints of students and faculty from the university.

In order to find out the perceptions of faculty and students regarding what motivates students to complete online learning degrees, a mixed methods study was utilized by administering the Intrinsic Motivator Instrument (IMI) and asking open-ended questions of both faculty and students who have completed or taught in an online learning degree program (Ryan & Deci, 2008). The IMI contains questions exploring personality traits that internally motivate and drive someone to succeed at a goal or task using a Likert-type scale coded as 1 = not at all true to 7 = very true. The five subscales used for this survey were: Interest/Enjoyment, Perceived Competence, Effort/Importance, Pressure/Tension, and Value/Usefulness. In addition, the IMI contained three fill in the blank questions from the Value/Usefulness category:

1. I think that doing this activity is useful for _____.
2. I think this is important to do because it can _____.
3. I think doing this activity could help me to _____.

The open-ended questions were embedded in a Survey Monkey link following the IMI survey questions and were worded so as to elicit student and faculty perceptions regarding motivating factors that drive students to degree completion. The quantitative portion of this study (IMI survey results) were analyzed with the help from a professional statistician using SPSS software for PC (American Statistical Association, 2011).

The open-ended questions for students were:

1. Once you started your online degree program, what were some of the external factors that motivated you to continue your degree to completion?

2. Once you started your online degree program, what were some of the internal   factors
that motivated you to continue your degree to completion?
3. How much weight did the internal factors play in your ability to complete your degree
versus the external factors that you listed above?
4. What are three characteristics or traits you would use to describe yourself in
completing a task or goal?
5. Was there any point during your online degree program where you felt like you
wanted to quit? What drove you to continue on and finish?

The open-ended questions for faculty were:

1. Once a student has started an online degree program, what do you perceive the
external factors to be that motivate students to continue a degree to completion?
2. Once a started has started an online degree program, what do you perceive the
internal factors to be that motivate students to continue a degree to completion?
3. How much weight might the internal factors play in a student's ability to
complete a degree versus the external factors that you listed above?
4. What are three characteristics or traits you would use to describe a student who has
completed a task or goal?
5. Was there any point during your facilitation of an online degree program where
you felt like a student wanted to quit? What do you perceive drove the student to
continue on and finish the program?

To add further breadth to the study, nine faculty were interviewed, thus providing a
triangulation of data. This qualitative portion of the study allowed for in depth interviews that
took place through Skype and phone calls. Eight sub questions were asked of the interviewees
that were derived from the open-ended questions asked in the survey link. The results from this
portion of the study were analyzed using QSR*NIVO software and hand coding techniques to
discover emerging themes and patterns in the faculty interviews.

Qualitative Findings and Conclusions

Research Question 1 was addressed by the results from the qualitative data found from
the three fill in the blank questions from the IMI and the open-ended questions asked of the
student alumni in this study. Themes and patterns emerged through the use of hand coding
techniques and the QSR*NIVO software in the analysis phase of the study. The first IMI fill in
the blank question asking what an online degree is used for revealed themes of: *self-discipline
and self-reliance*. The second IMI fill in the blank question asking why it is important to finish
an online degree found main themes such as: *self-efficacy and self achievement*. The third IMI
fill in the blank question asking what online degrees help a student achieve found a main theme
of: *self-actualization*. The five open-ended questions asked of the alumni students were analyzed
using the QSR*NIVO software program. Question one revealed common themes of: *degree,
better job, money*. Question two revealed common themes of: *self-satisfaction*, *self-confidence*,
and *intrinsic motivation*. Question three revealed common themes of: *internal factors more
motivating then external factors*. Question four revealed common themes of: *determination*,
focused, and *motivated*. Finally, question five revealed common themes of: *self reflection of
personal goals, self determination to finish goal until completion*.

Research Question 2 was addressed by the results from the faculty responses to the three fill in the blank questions from the IMI and the open-ended questions asked of the faculty in the study. The first IMI fill in the blank question asking what an online degree is used for revealed themes of: *critical thinking skills and problem solving skills*. The second IMI fill in the blank question asking why it is important to finish an online degree found main themes such as: *students helping other students in the online community*. The third IMI fill in the blank question asking what online degrees help a student achieve were: *self improvement and increased career opportunities*. The five open-ended questions asked of the alumni students were analyzed using the QSR*NIVO software program. Question one revealed common themes of: *family*, *social pressures*, and a *better job*. Question two revealed common themes of: *self actualization, desire to learn and achieve personal goals*. Question three revealed common themes of: *internal factors more motivating then external factors*, and *students need an internal drive to succeed*. Question four revealed common themes of: *determined, focused, time management*. Finally, question five revealed common themes of: *intrinsic motivation to complete task, faculty support to complete task*. Thus, Research Questions 1 and 2 revealed that in areas concerning what an online degree is used for and why it is important, student and faculty perceptions were not aligned. In addition, faculty and students thoughts were different regarding the purpose and importance of pursuing an online degree.

Nine faculty were interviewed using a qualitative phenomenological approach as a means of investigating further the perceptions of faculty regarding why some students are successful in completing an online learning degree. This allowed deeper insight into faculty perceptions regarding student motivation in the online learning environment. The nine faculty interviews of the eight sub-questions regarding what faculty perceived motivates students to complete online learning degrees revealed several themes found through hand coding techniques: *location of study, age/skill level, supports, intrinsic motivation, self-efficacy, internal drive, life experiences, asynchronous/synchronous learning, hardships, determination, self-improvement, beginning of the course, faculty initiative to offer supports,* and *student initiative to take supports in the online environment*.

The first sub question was: "In your experience, do undergraduate online students come prepared with a solid background in technological skills and APA/writing skills when taking an online course?" Two themes were revealed based on the interview responses to Question 1: *location of study* and *age and skill level*. For the themes of location of study, age, and skill level, many faculty talked about the differences they see in online students versus brick and mortar students. Several faculty mentioned that online students not only have to navigate through APA writing deficiencies but that is compounded with the technological issues of navigating through an online classroom. They cited age as a factor in that while younger students seem to have better computer skills needed for online learning, all students regardless of age had difficulty with writing and APA skills, which might contribute to frustration in online degree courses.

The second sub question asked, "In your experience, have you encountered online programs with external supports that help ensure online degree completion?" Three themes were revealed based on the interview responses to Question 2: *supports, motivation/self-efficacy*, and *online/land-based requirements*. While 100% of the faculty agreed that external supports are in place at the university to aid students through online courses, the students must find the intrinsic motivation to take advantage of the supports offered. Faculty also offered insight into issues with mandatory and non-mandatory basic skills classes for students. If students aren't required

to take basic writing classes, but the university offers those classes, students who lack internal motivation will not pursue the courses, thus, not do well in their required online courses for their degree. Some faculty felt that in order to help students feel successful in their learning, universities should require basic skills courses for struggling students in order to help them feel successful which might lead to a developed intrinsic drive to succeed.

The third sub question asked, "In your experience, do you think online students in general have to be better at time management skills than students who attended classes at a brick and mortar university?" Three themes were revealed based on the interview responses to sub question 3: *intrinsic motivation, life experiences,* and *asynchronous/synchronous learning.* Synchronous and asynchronous communication was a theme that emerged among faculty talking about time management and intrinsic drive to complete the course. Brick and mortar universities have the advantage of real time collaboration and communication that drives students forward and provides instant gratification of feeling successful whereas the online environment battles asynchronous communication through message boards, dealing with time zones across the country, and faculty feedback not being accessible instantly.

Sub question four asked, "How much do you think personal drive and intrinsic motivation to learn influence a student's completion of an online course?" Two themes were revealed based on the interview responses to sub question 4: *supports* and *internal drive.* 100% of the faculty interviewed agreed that internal drive was an integral component of a student's ability to complete an online learning degree. Faculty also noted that external and internal supports work together towards student achievement. Faculty mentioned how extrinsic variables such as family and friend supports can help to nurture and cultivate a student's intrinsic drive to succeed. However, many agreed that the online student must have the ability to foster his or her own learning in order to be successful.

Sub question five asked, "Have you encountered examples of students who have successfully completed an online learning degree with unstable external supports and/or resources, yet possess a strong motivation and drive to succeed, therefore they complete their degree?" Three themes were revealed based on the interview responses to sub question 5: *hardships*, *determination* and *external supports*. In talking about students with unstable external supports, seven of the nine faculty cited that most of their students do face extreme hardships and struggles in their personal lives which is why they have chosen the flexibility of online learning. However, because of those external struggles, determination and intrinsic drive helped these students overcome their obstacles and achieve their degrees in hopes of rising above their circumstances. Faculty #2 stated, "The teacher-student relationship is extremely important, even if it is just the student knowing that the teacher wants the student to succeed."

Sub question six asked, "Are the characteristics or traits that students possess motivated by desire to possess the degree at completion, or are the characteristics and traits that students possess motivated by the desire to possess what the degree will lead too?" Two themes were revealed based on the interview responses to sub question 6: *self-improvement* and *external improvement*. In talking about why students are pursuing online degrees, some faculty felt that while some students were there to increase intellectual capabilities, most of their online students placed a deeper value on how the students would feel after they achieved the degree, and the personal feelings of value and accomplishment the students would experience.

Sub question seven asked, "In your facilitation of an online course, do you notice there to be a certain week or time period when students drop out?" One theme was revealed based on the

interview responses to sub question 7: *beginning of course*. In talking about a time period when students drop out of an online course, 6 of the 9 faculty named Week 3 as the turning point. 100% of the faculty noted that students typically drop out of an online course between weeks 1-3. One faculty member stated he could gauge internal motivation in a student by external variables such as: consistency in turning assignments in on time, evidence of good writing skills, and active communication between the teacher and student.

Sub question eight asked, "How much verbal, emotional, and physical support do you think is needed to ensure that students complete their online degree?" Three themes were revealed based on the interview responses to sub question 8: *faculty initiative to offer supports*, *student initiative to take supports*, and *supports in online environment*. Many faculty believe that teacher-student collaboration is key to a student's desire to continue through an online course to completion. Seven of the nine faculty made statements regarding their own responsibility to be an active presence in the student's online experience. 100% of the faculty interviewed made statements regarding the verbal, emotional, and physical support that must be given from faculty to students in order to aid a student in completion of the course. Active synchronous communication is needed to help foster a student's drive to complete the course successfully.

Quantitative Findings and Conclusions

Research Question 3 was analyzed using several different statistical tests through SPSS including the Mann-Whitney U, Non-Directional Independent Samples Median Test, Levene's Test for Equality of Variances, and the t-test. These tests helped to find the difference between the IMI scale rankings of students and faculty for this study. The Mann-Whitney U test rejected the null hypothesis for 10 of the 27 Likert-type scale questions. Four of the ten (40%) were from the value/usefulness subscale of the IMI instrument. Faculty and student perceptions were not aligned in regards to the amount of value and usefulness students perceive completing an online degree is beneficial to them. If value and usefulness components are tied to intrinsic motivation, then faculty and student alignment of perceptions in this area would be necessary in order for the faculty to provide and plan activities that students find stimulating and beneficial to ensure student success in the online learning environment. The null hypothesis was retained for the remaining 17 questions, showing a fairly equal divide between faculty and student perceptions regarding intrinsic motivation and completing an online learning degree.

The Non-Directional Independent Samples Median Test rejected the null hypothesis for 8 of the 27 questions. Three of the eight (38%) were from the value/usefulness subscale and three of the eight (38%) were from the effort/importance subscale of the IMI. This misalignment of student and faculty perceptions regarding the amount of effort students put into their work and the value and importance they place on work ethic leads to consideration of what the ramifications are in respect to student completion rates. The null hypothesis was retained for the remaining nineteen questions from the IMI survey.

The Levene's test rejected the null hypothesis for 5 of the 27 questions. However, the assumption of unequal values didn't impact the final t-test results. Out of the five questions that were rejected, three of the five (60%) questions were from the perceived competence subscale of the IMI. This difference in faculty and student perceptions regarding self-competency could impact completion rates in online degree programs. If faculty do not understand when students are feeling self-satisfaction and autonomy in an online course, the teacher-student relationship

could be affected. It would be beneficial for faculty to know a student's perceptions of intended learning and self-autonomy levels in order to produce successful outcomes of instruction and learning throughout the online course (Akyol, Garrison, & Ozden, 2009).

The t-test revealed a statistical significance for 11 questions where the p value was less than the alpha of .05. Of the eleven questions that were rejected, four of the eleven (36%) questions were from the value and usefulness subscale component of the IMI. This misalignment of faculty and student perceptions regarding internal student feelings and online learning activities important because faculty need to know how student internalize feelings towards their own capabilities so they can help foster intrinsic motivation in students to help them reach their fullest potential and succeed in the online learning environment.

Implications, Recommendations

The results from this study provide implications for future practices that include:
1. Explore opportunities for greater student-teacher and student-student collaboration within the online teaching environment through synchronous and asynchronous communication strategies.
2. Provide incentive opportunities for students to utilize supports in the online learning environment.
3. Explore possibilities for requiring basic skills classes for new students that help train and equip online students to be successful in future courses.

These recommendations stem from the premise that cultivating intrinsic motivation in students through extrinsic variables may contribute to a students' ability to complete an online learning degree. Providing opportunities for students to nurture their intrinsic motivation to learn and equipping faculty with the resources and avenues necessary to help students an align faculty and staff towards the same common purpose of helping students succeed by reaching their goals within the context of the online learning environment. While student data conveyed that online learning programs were vital to a student's self-evolvement and self-efficacy, faculty data conveyed the importance of student-student interaction through motivating and inspiring community in the online platform. Faculty also expressed the need for the student-teacher relationship to be strong in the online classroom to ensure student success. Therefore, merging these two different perceptions could potentially produce a strong intrinsic drive in the student to complete their degree through student-student synchronous communication and student-teacher asynchronous communication through the duration of a course. Strategies could include: more opportunities for student led discussions and community in the online classroom, and more faculty interaction with students through types of technological communication during the facilitation of the online course. These interactions could potentially increase intrinsic motivation in students to succeed through relationship building and shared responsibility for student learning in the online environment.

Faculty also suggested that although universities might have supports established for students to utilize, those supports are not required to be used by the students; therefore students do not always utilize the supports that are provided. By requiring supports such as online tutorials, APA writing help, math center use, etc. to be used by struggling students, retention rates in the program might rise as student feel more equipped and self-assured to succeed in their

courses. Implementations of incentive programs for students who take advantage of support systems at their college might foster intrinsic drive to succeed and aid students in completing an online course successfully. These suggestions align with student perceptions regarding what a degree is used for: self-actualization, increase self-efficacy, and positive self-discipline and self-reliance issues.

Five potential areas of future research were made evident through the process of completing this research study. First, future research could explore faculty motivation to collaborate and connect with students as related to faculty motivation and student success in the online teaching and learning environment. While past research has explored faculty perceptions as related to extrinsic variables, future research could explore faculty motivation as related to student success and connectedness in the online teaching and learning environment. Second, this research study revealed faculty perceptions on the need to explore teacher-student and student-student bond and collaboration needs within the context of the online learning platform. Comparing collaboration needs between student and faculty in the online platform could help to align those needs to develop student success. Third, future research is needed to further investigate the peer-learning framework as it relates to teachers supporting other teachers through online collaboration and professional development. This could impact course design, structure, curriculum how communication is utilized between teacher and student to achieve student success. The data from this study revealed certain themes and patterns about faculty initiative to offer supports to students. In addition, the results revealed the lack of teacher-to-teacher collaboration within the context of the online learning environment. Future research on how the peer-learning framework can be used for teacher-to-teacher collaboration and professional development could potentially impact course design, structure, curriculum, and teacher to student communication as related to student success in the online learning environment. Next, research is needed that will explore motivational strategies and best teaching practices that faculty can implement in order to build trust and camaraderie with their students through text-based communication. This study revealed that student self-efficacy, self-actualization, and drive to succeed are relevant to student success in the online learning platform. Synchronous and asynchronous text-based communication strategies for building student and faculty motivation to engage with each other could be examined. Finally, more research is needed to compare the differences in motivational traits between undergraduate and graduate online learning students. Areas of concentration could include demographics, age, socio-economic status, degree concentrations, etc. If differences are found in how these two groups collaborate, communicate and learn, then specific teaching practices, strategies, and communication avenues could be adjusted to ensure student success.

This research study was rooted in previous research by theorists regarding inquiry based learning, self-efficacy, various cognitive theories, the community of inquiry framework, and how past theories and models have evolved through technology in the online learning environment (Gardner, 2011; Garrison & Arbaugh, 2007; Leong, 2011; Peiris & Gallupe, 2012; Ryan & Deci, 2008; Shea & Bidjerano, 2012). Although faculty and student perception did not align in some subscales of the IMI instrument, both faculty and students agreed that internal motivation and drive to succeed was a vital component necessary to ensure student degree completion.

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