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Table des matières / Content

| | |
|--|-----|
| CRITICAL THINKING IN ARAB COLLEGE WOMEN..... | 5 |
| THE ESTABLISHMENT OF MODERN SCHOOLS BASED ON EUROPEAN STYLE IN IRAN | 17 |
| A MODEL FOR TEACHING IN AUSTRALIAN MULTI LINGUAL MATHEMATICS CLASSROOMS | 33 |
| AN EXAMINATION OF CERTAIN PHYSICAL, SOCIAL AND EMOTIONAL CHARACTERISTICS OF CHILDREN WORKING IN THE STREETS | 40 |
| THE ECONOMIC IMPACT OF A HIGHER EDUCATION INSTITUTION | 50 |
| KNOWLEDGE BOUNDARIES AND BOUNDARY-CROSSING IN THE DESIGN OF WORK-RESPONSIVE UNIVERSITY CURRICULA..... | 61 |
| AN INVESTIGATION OF FACTORS THAT POSITIVELY OR NEGATIVELY INFLUENCE COLLABORATIVE RELATIONSHIPS..... | 75 |
| A STUDY OF RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND LEADERSHIP STYLES IN IRANIAN INSTITUTES OF HIGHER EDUCATION..... | 84 |
| RACE: THINK YOU ARE AN UNBIASED? THINK AGAIN!..... | 105 |
| AUTEURS / AUTHORS..... | 111 |
| INDEX..... | 111 |

Critical Thinking in Arab College Women

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Previous research conducted by Shono & Smith (2006) highlighted the challenges faced by MENA (Middle Eastern and North African) college women in their desire to pursue a full-fledged career. The factors impeding these women's freedom of choice regarding their educational and career paths included (1) familial and societal expectations for them to get married and raise a family immediately after graduation, and (2) restrictions, in the form of preconditions, imposed by patriarchs (either the father or the husband) around the nature of work these women were allowed to engage in, if at all. These preconditions tended to be shorter working hours, spatiotemporal proximity to home and a segregated work environment (Shono & Smith, 2006).

Overcoming the societal and cultural challenges seemed to make the realization of these women's rights to self determination a remote possibility even after their having graduated from college. The question then arose: what were we, as educators in the United Arab Emirates, doing to equip these young adults with skills to think through their epistemological and ontological issues so that they could make educated choices while staying within their cultural boundaries. As I work in the same educational institution as Shono and Smith, I see this present research as a natural response to the problem posed in their research study.

On a pragmatic level, the research participants' deferential, unquestioning acceptance of the cultural norms juxtaposed with the course objectives of the various critically oriented courses I teach. The anomaly, however, made me reflect critically on the efficacy of the pedagogical techniques I employed in my teaching. This research project has thus tended to be a two-way road for me; on one hand I reflected critically about my teaching practices and on the other, I thought about the immense importance of critical reflection for students in overcoming the challenges in their life's journey.

My participants' profile

The age range of the undergraduate students I teach is from 18-24. They come from all the Arab countries around the United Arab Emirates such as Syria, Jordan, Iraq, Iran, Lebanon, Sudan, Egypt and Saudi Arabia. They are a mix of boys and girls working towards a degree in Engineering, Architecture and Design, Business or the Sciences through Freshmen, Sophomore, Junior and Senior years. Even though this paper specifically, addresses the need for young women to acquire critical thinking skills, I consider its applicability equally relevant to the male students in the study, since they also need to be more open-minded and critically reflective.

Culturally, these young people would be defined as adults by virtue of their being considered old enough to handle the responsibilities of parenthood and a stable

livelihood, as indicated in Shono and Smith's research (2006). Yet these very adult women succumb to societal pressures in allowing their life altering decisions to be made by someone else such as their fathers or husbands, despite their better judgment. While the situation exudes reverence for the cultural norms, it also smacks of a certain lack of critical thinking on the part of female students who just go along with what is expected of them rather than trying to look for a middle ground so that their right of self determination is not completely compromised.

Speaking of the subliminal acceptance of cultural norms Brookfield argues ...how we sense and interpret what happens to us and to the world around us is a function of structures of understanding and perceptual filters that are so culturally embedded that we are scarcely aware of their existence or operation. (in A. Tuinjmans (ed.) 1995)

He further points out that

Because of the habitual ways we draw meaning from our experiences, these experiences can become evidence for self fulfilling prophecies that stand in the way of critical insight. (in A. Tuinjmans (ed.) 1995)

The experiences of MENA women are therefore invaluable for any kind of theorizing about their teaching and learning. In talking about the education of women various ontological and epistemological questions could be considered, such as: what is truth? What is authority? To whom do we listen? What counts for us as evidence? How do we know what we know? Such questions affect our very definition of ourselves, that is, they define our identity and determine how we view our life—public and private, how we perceive our life events and how we interpret our roles in life.

Belenky, Clinchy, Goldberger and Tarule in their book 'Women's Ways of Knowing' (1986) conducted interviews with women to look into how they view reality and draw conclusions about truth, knowledge and authority. They discovered, among other things, that:

- Women's self concepts and ways of knowing are intertwined
- Women struggle to claim the power of their own mind
- The two institutions primarily devoted to human development—the family and the school—both promote and hinder women's development
- All women grow up having to deal with historically and culturally ingrained definitions of femininity and womanhood

These findings, together with Shono & Smith's research reveal women's predicaments to be largely universal whether the research is of Western or Eastern origin.

Epistemological orientations

In his book 'Forms of Intellectual and Ethical Development in the College Years' (1970) William Perry explains the gradual progression in the intellectual development of learners as they start out on their epistemological journey through life. He argues that initially the learners view the world in terms of polarities of right/wrong, black/white, we/they and good/bad. These he calls

'basic dualism' The knowledge bound by absolutes and binaries is handed down to the passive learner by the all knowledgeable teacher in a traditional pedagogical format of 'banking' (Freire, 1973).

Subsequently as the learner acquires more knowledge, and gains insight into the workings of life, he/she becomes aware of the diversity of viewpoints and the multiplicity of opinions that others hold. Thus 'dualism' is replaced by 'multiplicity' when the student realizes that there is no absolute answer to a question.

Multiplicity is followed by relativism subordinate when a teacher asks the student to substantiate his/her opinions by providing evidence thus adopting an analytical evaluative approach to acquiring knowledge.

The last stage in Perry's schema is the progression to full relativism where the student totally understands the truth to be relative by virtue of its being dependent upon (1) the context and (2) the interpretation that the knower accords to it. It is at this level of intellectual development that the students understand that knowledge is constructed not given, contextual not absolute, mutable not fixed. According to Perry it is at this stage of relativism that the affirmation of personal identity and commitment evolves.

It might be postulated that because of cultural and familial restrictions around navigating their lives, our female college students apparently fall short of reaching the last stage in Perry's schema where they could see knowledge (and truth) to be socially constructed and then view themselves as creators of knowledge.

To me, the last stage postulated by Perry seems to be somehow congruent with Dewey's concept of experience. For Dewey (1938) the criteria of experience are continuity in temporal terms and interaction, where the interaction between the objective (physical) conditions and internal conditions (feelings and emotions of people) constitute the interpretation of the experience. Also the interaction between the internal conditions and the objective conditions are encompassed in the context on which the interpretation of the experience depends.

The analysis provided by Belenky, Clinchy, Goldberger & Tarule (1986, p.15) derived from Perry's (1968) schema is very useful in interpreting women's perspectives through their five epistemological categories: silence a position in which women experience themselves mindless and voiceless and subject to the whims of external authority; received knowledge, a perspective from which women conceive of themselves as capable of receiving, even reproducing knowledge from the all-knowing external authorities, but not capable of creating knowledge on their own; subjective knowledge, a perspective from which truth and knowledge are conceived of as personal, private and subjectively known or intuited; procedural knowledge, a position in which women are invested in learning and applying objective procedures for obtaining and communicating knowledge; and constructed knowledge, a position in which women view 'all knowledge as contextual, experience themselves as creators of knowledge and value both subjective and objective strategies for knowing' (Belenky, Clinchy, Goldberger & Tarule 1986, p. 15)

Such classifications are often very useful in tracing the epistemological and intellectual development of women. Though these abstract categories are by no means infallible, the researchers were able to see that the women they interviewed were at different stages of progression towards a realization of self. The women used a metaphor of acquiring 'voice' and living in 'silence' when talking about their intellectual development. Their sense of self-worth was inextricably intertwined with their developing epistemological orientations. I, myself, think of women's empowerment through education as a phenomenon whereby they acquire 'voice' as opposed to their 'silenced' existence in a patriarchal culture.

Because the (silent) women have relatively underdeveloped representational thought, the ways of knowing available to them are limited to the present (not the past or the future); to the actual (not the imaginary or the metaphorical); to the concrete (not the deduced or the induced); to the specific (not the generalized or the contextualized) and to behaviours actually enacted (not values and motives entertained) (Belenky, Clinchy, Goldberger & Tarule 1986, p. 27)

Limited in their conceptual repertoire they see authority, especially male authority in patriarchal societies, as being absolute. In fact silent women blindly obey male authority and submit to it completely in order to ensure their survival in the social setup. Men, on the other hand, knowing that they are in control, consider uneducated women particularly, and women generally, immature and impulsive. The sex-role stereotypes in a patriarchal society further endorses the silent women's passivity, compliance and powerlessness. Women, generally, tend to see themselves through the eyes of their men, either the father, the husband or the brother, as if the source of self knowledge is lodged in others not in the self.

Acquiring "voice" through Critical Reflection

Brookfield notes the unrealized potential for critical reflection in many cultures: "Across the world people live lives in which the possibility for critical reflection remains unrealized, either through political oppression, apathy, poverty or educational neglect" (Brookfield, 1995, p. 4). People from western cultures then often wonder why women from patriarchal cultures do not critically reflect on and subsequently question the prevalent cultural assumptions. Marshall (1998) while quoting Brookfield observes:

A primary reason may be that in critically analyzing the patriarchal assumptions upon which their cultures are formed, the women risk being alienated from their culture. Brookfield (1994) discussed the inherent difficulties of critical reflection. In a study of adult educators who engaged actively in critical reflection "cultural suicide" was an impending threat. The learners perceived that if they critically questioned conventional assumptions, justifications and structures too deeply they risked being excluded from the cultures that had defined and sustained them up to that point in their lives. (Marshall 1998)

This fear of being culturally ostracized was also expressed by my students when I encouraged them, while discussing logical fallacies, to question cultural beliefs that were now redundant and obsolete.

Whereas Marshall (1998) suggests that western educational programs that encourage rational thought and critical reflection may not be best suited to Eastern students' needs, and "Methods that emphasize the development of relatedness and connectedness and values that facilitate intuitive learning may be more appropriate teaching and learning styles" for such students, I tend to believe that since Arab (and Eastern) women have to keep pace with the changing cultural and economic demands of a globalized world, critical reflection must be encouraged by teachers.

Methodology

Critical reflection: A two-way road

As a reflective practitioner this study afforded me a unique opportunity to gain a critical insight into my teaching practices. It helped me, on one hand, to reflect critically on whether I was translating the course objectives of the various courses I taught into effective pedagogical activities aimed at enhancing critical thinking skills in students. On the other hand, I looked at the situation from my students' vantage point to reflect on the importance of critical thinking in making them better and logical thinkers to think through their ontological and epistemological issues clearly.

Richard (1990) believes reflection to be a key element of teacher development. He argues that self-inquiry and critical thinking can "help teachers move from a level where they may be guided largely by impulse, intuition, or routine, to a level where their actions are guided by reflection and critical thinking" (1990, p.5)

While defining critical thinking in an interview with Ferrell (1995, p.95) Richard states: "Critical reflection refers to an activity or process in which experience is recalled, considered and evaluated, usually in relation to a broader purpose." I subscribe to Richard's definition for the purpose of critically reflecting and evaluating my teaching techniques while planning for future forays into the task of encouraging critical thinking in my students.

Research on Reflective teaching portrays a distinction between *knowledge-in-action* (Schön, 1983, 1987), *reflection-in-action* (Schön, 1983, 1987), *reflection-on-action* (Schön 1987, Hatton and Smith 1995) and *reflection-for-action*. Schön (1983, 1987) believes that each action in a classroom is guided by thought and this tacit knowledge in action which results *in reflection-in-action*, is pivotal to professional practice. *Reflection-in-action*, as the name indicates, is thinking in the moment. It emerges out of routine responses in a classroom and might originate from a surprise situation that inspires us to think critically and experiment on the spot. *Reflection-on-action* implies thinking back on actions to see how our knowing in action might have resulted in a novel action. (Schön, 1987, Hatton and Smith, 1995). The fourth notion of reflection is *reflection-for-action*, which is distinguished by its proactive nature. Killon and Todnew (1991, p. 15) state that even though *reflection-for-action* is the desired outcome of reflection-in-action and reflection-on-action, in this case "we undertake reflection, not so much to revisit the past or to become aware of the meta-

cognitive process one is experiencing (both noble reasons in themselves) but to guide future actions (the more practical purpose)".

The consideration of moral and ethical problems (Gore and Zeichner 1991; VanMannen, 1977) in classrooms calls for the inclusion of wider socio-historical and political-cultural contexts in critical reflection. (Zeichner and Liston, 1987; Schön 1983, 1987). Bartlett (1990) also subscribe to a view of critical reflection which favors the inclusion of the broader socio-cultural context.

In the backdrop of the above literature, I have come to believe that effective teaching entails the integration of real life issues in classroom activities through encouraging students to engage in volunteering opinions and subjective insights about their cultural traditions. For the purpose of giving examples of the activities that I use to encourage critical thinking in my students I am going to give a snapshot of three courses that I teach at the American University of Sharjah.

The three courses are: *Public Speaking*, *Advanced Academic Writing*, and *Sociolinguistics*.

1. In **Public Speaking** I ask each students on the first day of class to make a 2 minute impromptu speech on the following questions as a way of introducing themselves to the class:

- Name:
- Major:
- Interests and hobbies:
- How do you rate yourself as a public speaker? (for example, a *hesitant*, *shy*, or a *confident* speaker)
- Think of a metaphor to describe yourself. (For example, *a shady tree* that gives comfort or solace to friends in trouble, OR *a river*, changing its course with the changing tides of time, etc)
- Explain how that metaphor relates to your personality.
- How do your friends perceive you?
- How does your perception of yourself differ from that of your friends.

[This activity, besides being an ice breaker, encourages them to think about themselves metaphorically, connect perspectives and to deduce inferences from these perspectives to know themselves better].

2. In an assignment called the 'Leisure Time Speech' I ask them to deliver a speech about the activities they engage in when they have spare time. Then they are required to say what these activities reflect about their personalities. In this speech they bring in objects (Audio-visual aids) that signify their hobbies and interests, and make power point presentations.

[This speech, apart from its interest value, helps students validate their interests and experiences, and gain confidence in themselves. Also, their interests sometimes reveal a different side of their personality that they are often hesitant to share with their family. I had a student whose passion was break-dancing. He secretly went out with his friends to engage in his favorite pastime but did not dare let his family know, because they strongly disapproved of it. He said it

would bring dishonor to his family. Since I strive to keep the class atmosphere very relaxed and judgment-free he was fine sharing it with us]

In **Advanced Academic Writing**, students are required to learn the skills of synthesizing, critiquing and eventually writing a research paper. The two important component of my course worth mentioning here are the learning of Logical Fallacies and the Research.

3. As part of the course students have to learn at least 15 logical fallacies to so as to guard against them when constructing an argument. As an innovation to the usual lecture mode, I make it into a mini research project whereby students pick two fallacies and then hunt for their own examples for each to be presented to class. These power point presentations are then posted on the discussion board of i-learn (which is an application of Blackboard) for everybody to gain access. Here are a few examples of my students sentences that signify their knowledge of logical fallacies in their culture. (In order to preserve originality, I have kept the language of the students in these sentences)

False Analogy

We can say there is a false analogy when two subjects A & B appear to be similar so it is said that A has the property X so B must have that same property. But in reality they are different.

- Your tongue is like your horse, if you take care of it, it will take care of you, and if you betray it, it will betray you

Appeal to Tradition

Appeal to Tradition is a fallacy that occurs when it is assumed that something is better or correct simply because it is older, traditional, or has always been done.

- Women should not get education because it is women's job to stay at home and serve their husbands and children
- One should always get married to one's cousin since it is our tradition
- If I wanted to get married to a girl of my choice, my parents would argue "But why, we had an arranged marriage and everything worked out fine "
- The blue-eye medallion protects from envy so all girls must wear it.
- The educational system that we have in Iran is the best. Because we had it for decades and no one has ever talked about changing it.
- A Syrian man told me that he wanted to shave his moustache, so I told him that he couldn't because moustache in Syrian culture represents the honor of the man
 - Mother: I should look for a blond girl to be your future wife.
 - Son: But, why? You know I hate blonds.
 - Mother: Because you are a doctor, you must marry a beautiful woman. And in our culture only a blond woman with blue eyes is beautiful.

- People in our culture have always ridden horses so it would be foolish to buy cars
- People in our society used to pour water on the floor right after a traveller went on her or his journey. So, we should still do that because it prevents the traveller from having accidents.

Either /Or fallacy

An either/or fallacy occurs when a speaker makes a claim that presents an artificial range of choices. For instance, he may suggest that there are only two choices possible, when three or more really exist. Those who use an either/or fallacy try to force their audience to accept a conclusion by presenting only two possible options, one of which is clearly more desirable.

- We may support this petition for a Gender Studies major, or we may turn our backs on progress, reject the petition and suffer the consequences
- Society must sanction either capital punishment or violent crime.

Circular reasoning or Begging the Question

Begging the Question is a fallacy in which the premises include the claim that the conclusion is true.

- The belief in God is universal. After all, everyone believes in God.
- When a student accuses a professor of grading him unfairly because no matter how "excellent" his papers are, the professor never gives him above a C, he is basing his argument that the professor grades unfairly on the unproven premise that his essays are excellent

Slippery slope

A Slippery slope argument falsely assumes that one thing must lead to another. It suggests that an action will initiate a chain of events culminating in an undesirable event later.

- Surfing Face book on a daily basis can lead to addiction which will cause students to spend a lot of time on their computers instead of studying and that will eventually bring down the level of education in AUS . Therefore, Face book should be blocked.
- If you don't get to bed early, you'll be too tired to do well on the TOEFEL exam tomorrow and then you won't get accepted into a decent university and then you'll end up wasting your whole future

Biased sampling

This fallacy is committed when a person draws a conclusion about a population based on a sample that is biased or prejudiced in some manner

- A survey was conducted to find out the percentage of AUS students who are in favor of smoking. Only those who were sitting in the smoking zone were surveyed and 90% of them were in favor of smoking therefore, it was concluded that 90% of AUS students were in favor of smoking
- My friend wanted to know what kind of food AUS students prefer. So, he went and surveyed students sitting in the Deli Marche restaurant and 90% of them were in favor of the Deli Marche buffet. Therefore, he concluded that 90% of AUS students prefer the Deli Marche food.

The final component of the Advanced Academic Writing course is a 8-10 pages long research paper. I encourage them to choose a topic of their own interest but I tell them it has to be an argumentative topic that would require them to go out into the field and interview people. The topic should preferably be about an issue that concerns us in the UAE, not a research about something happening in, for instance, in a remote area in America that does not affect our lives in the Middle East at all. For a time, I also experimented with the idea of making these research projects pair work, not only to make them more fun for students but also because I was reminded of my lonely years doing research, longing to discuss the challenges I faced, with a like-minded person. The pair-work idea did not go too well with my colleagues who thought I was doing it to lessen the amount of grading we normally do in the course, so I returned to individual research projects. For the students, however, it was a boon. In their self-evaluation that I require them to write telling me about things they enjoyed in the course and things they did not enjoy so much, they wrote comments like:

“If my parents knew I was out at Buddha Bar on my own they would have killed me, but they knew I was with my friend interviewing call girls for my research. It felt safe to have my research partner with me”

[A student working on the reasons behind the rise in prostitution in Dubai]

Another student wrote:

“It was very risky. I mean, interviewing laborers about their working conditions. They [the laborers] were scared that if their supervisor got to know that they were complaining, he would fire them. We tried to assure them that their names will not be told. Naji [research partner] interviewed them and I took pictures. We quickly left [the labor camp]”.

[Students working on the violation of labor rights in Dubai]

The third course I will discuss here is **Sociolinguistics**. It is a content course which also has research projects as its culminating point. The kinds of projects I like to give are listed below, they are adapted from different books for the express purpose of making students aware of their own cultural assumptions.

1. There are a number of principles that govern politeness in Japanese. These principles include; honorific form incorporating negatives (analogous to English ‘Wouldn’t you like to...?’), the longer the utterance the more polite it is, your gender determines your use of honorifics so that politeness is most expected when women address men, attitudes toward using honorifics vary with age and social class etc. What are some of the principles governing

politeness in your language. How are they influenced by the power dynamics in your society? To what extent, in your opinion, are they justified?

2. Record a conversation in your language. Note all signs of politeness. Take them out. How does the resulting conversation sound i.e., what is its effects? Alternatively record an impolite exchange and try to specify exactly why it is impolite. Explain how the role relationship among the interlocutors affects the exchange.
3. Try to work out some of the difficulties one might experience in giving and receiving compliments, particularly the power and solidarity issues. In what ways do compliments given in symmetrical relationships differ from those given in asymmetrical relationships in your culture?
4. An apology is a special kind of politeness device that addresses the face needs of a hearer when some kind of an offense has been given. Analyze some offenses and apologies from this perspective in English and then in your language context, keeping in view the gender and the role relationship of the speakers in the exchange.

(Adapted from Wardhaugh, R., (2006). *An Introduction to Sociolinguistics*. Oxford: Blackwell Publishing:

5. Consider three contexts in which, in your experience, men and women tend to talk differently, and how. List these contexts and associated differences.
6. Have you had direct experience of 'cultures' in different parts of the world in which men's and women's linguistic practices vary, either 'sex-exclusively' or 'sex-preferentially'. Discuss your experiences.

(Adapted from Sunderland, J., (2006). *Language and Gender: An Advanced Resource Book*. New York: Routledge

Conclusion

Critical thinking is a higher order thinking that requires the learners to interpret life in all its complexity. I believe, as a facilitator, I strive to provide my students with the *scaffolding* (Vygotsky 1978) in a collaborative and cooperative learning environment that they might need to perform the conceptually challenging tasks aimed at critical thinking. In keeping with the Constructivist approach to teaching, (Jonassen,1991,1994) the various simulated real-life research projects enumerated above constitute some little steps taken to make students question the status quo and see how knowledge is socially constructed not given. Hopefully with changing times young Arab college women would be able to find a way round cultural boundaries that often impinge upon their right of self-determination, and find 'voice' to control their destinies.

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The Establishment of Modern Schools Based on European Style in Iran

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Abstract

Before modern schools in Iran, French Catholic missionaries had founded a number of schools in Urumia and Tabriz. Not being allowed to propagate their religion in Iran, they indirectly tried to familiarize Iranians with their faiths through these schools. For this reason, unlike traditional and modern schools, the academic aspects of these schools were not paid attention to. This research aims to examine these schools focusing on their negative and positive effects on Iranian society.

Keywords: Lazarite mission – the mission of Basil - American mission - Haas school - Eugene Bourret's school

1. Introduction

Missionaries' centers were extended in Europe and America in the late 1800 and early 1900. The mission of basil was established for promotion of the Christianity in east (Basel- Swiss land) in the year of 1815, and then Christian Got Blumhart a German churchman who was the chief of mission; dispatched the missionaries toward different countries. Seemingly the first person was dispatched by mission to Iran (1) was named G .Phander(2) he came to Iran in 1825; his goal was passing the Iran through Iraq.

After a few days staying in Iran, He went to Bagdad, then returned to Iran in 1832 again on the first October and stayed there until the 1st March of the next year. PHANDER arranged some information about the progression of establishment, organizing and missionary procedures in Iran for The mission of basil and he laid the foundation of missionary in Iran in 1883. During these days some people associated to the American board for missioners for foreign missions entered to Iran (3).

This association had begun its activity in Middle East in 1831(4) then it dispatched Ellio Smith and H.G.Dwight to Iran. They went to Tabriz, Echmiyadizin and Urumia then they reported to an American faction the present potential in Iran. American group received a report showed that working among the Middle Eastern Moslems is impossible for now, therefore they decided to send one Missioner among Iranian ASSORIES(5) for advancement of Christianity among them, so they were named (dispatched mission toward NESTORIES).

The mission of Basil and American mission were protestant both; Catholics also had sent their messengers in 1700 to Iran (6). When Pop and other catholic communities heard the success of Protestants in Urumia they decide to propel their messengers in opposition to the protestant messengers so Eugene Bourret

and priests Lazarites (7) have been sent to Iran.

Some cities in Iran such as SALAMY and KHOSROABAD were Christian, chiefly Catholic so Lazarites went in those cities first and founded a number of schools nearby.

2. Foundation of foreign schools

European missionaries, royal dynasty and the noblesse of Iran had a very significant part in foundation of foreign schools in Iran.

The foundation of school besides the religious attitude and its nationality was one of the first and major religious missionary's activities in Iran.

Religious missionaries had come for scattering Christianity in Iran. First, they publicize Christianity directly and debate with Shiaey religious authorities then they wrote some rejection letter against Islam.

But they concluded that publicizing Christianity directly is impossible in Iran (beginning of GAJAR rule). So they planned other ways to obtain their goal, at first foundation of school and second, using Christian physicians.

PHANDER recommended the foundation of schools after visiting Iran; he first founded a school in Bagdad and much loved having the same plan in Iran.

PHANDER emphasized that missionaries should be settled as teachers in TABRIZ, PHANDER believed this way is the indirect way of publicizing Christianity in Iran and publicizing directly will be useless, 50 years later BENYAMIN, first American envoy also supposed that creation of school is the only way for promoting Christianity in Iran.

BOURRET, French churchman supposed the unique instrument against ignorance is the formation of knowledge because by getting knowledge some kind of doubt will be propagated among students then by passing time the desired goal will be gained, on the other hand the Iranian noblesse and the royal families insisted on foundation of foreign schools.

ABBAS MIRZA supported the creation of print house and foreign schools in Iran, he had announced: my children will be taught by Europeans. ABBASMIRZA tried to encourage some of European immigrants to live in AZERBAIJAN by advertising among British people. Malek Gasem Mirza who was the ruler of Urumia and Fatalisha, 24th son had significant function in establishment of foreign schools in Iran, EUGENE Flandin, the French painter who came to Iran with De Sarcey (first France ambassador in Iran) admired Gasem Mirza because of his consideration about modern knowledge and its said he was one of the most inflexible advocates in construction of foreign schools in Iran.

GASEM MIRZA was one of the advocators of French culture, he could speak in some languages such as French, English, Russian, Turkish, Arabic and Indian, he was chosen in Asian community in Paris then prepared the complete map of Iran for them, he learned English language from church man Perkins, missionaries and

American protestant, then he got the permission for creating the schools from Mohammad shah and he was one of the managers of Azerbaijan schools.

Mohammad shah got the authority as king of Iran then Malek Gasem Mirza and HAJI MIRZA AGASI supported the religious missionaries and creation of religious and training institutes in Iran because they wanted to bridle the invasion of ottomans, because ottomans had begun the suppression of Christians. Creation of the Christians religious and training centers in UROMIYE was some kind of block against Turks also Iranian government was hopeful that churchmen defend against ottoman invasions in Iran boundaries. But it was useless because missionaries were not interested in Iran integration and their goal was something else.

Iranian nobles also were advocators of creating foreign school in Iran. PHANDER was confident, he can find a way for publicizing the Christianity among Iranians, by using the support of Iranian noblesse, in other hand in some of the cities which were neighbours of Iran such as Bagdad and SHosh some schools were established by Christians missionaries in past so by using theses possibilities foreign schools were established in Iran.

3. Haas and the mission of Basil's schools in Tabriz

In spite of major thoughts, American and Perkins mission were the first creators of schools in Iran. It seems K.F. Haas was the first founder of school in Iran. He came to Iran behalf of the mission of basil. He could establish a school in Iran neighbourhood (SHOSHI) for Armenians on 1827 then he came to this city because he wants to establish a school in TABRIZ. But what was the reason for choosing the TABRIZ for founding the school?

There were a lot of Europeans living in TABRIZ. GAJAR family specified TABRIZ as a crown prince's house and ABBASMIRZA, the crown prince, had been selected as a ruler of the TABRIZ in 1802. ABBAS MIRZA was appointed as a responsible in foreign affairs then the Russian and England embassies were located there. The numbers of Christians in this city were high and they were Armenians with the population of 34000.

Foreign governments, Christians and Europeans backed missionaries so they could stay in TABRIZ easily. Haas went to Alexander Ness Bet's home who was the top man of war affairs in ABBAS MIRZA, S government then he built a room for school there. He opened a small school for young Armenian in 1833. On the beginning days of school establishment, there was Armenian teacher from SHOSHI.

The number of students increased gradually. In addition to the Armenian students some Iranian students also joined in this school in 1833. Haas taught English and French to Iranians.

ABBASMIRZA died in 1833 and one year later SHAHABBAS died too so Haas was concerned about the continence of mission's action in Iran so he met with MOHAMAD SAH.

MOHAMMAD SHAH welcomed him then England and Russian governments backed him too. He thought Iranians can't trample him because European powers backed him.

SIR CAMP POL recommended to Haas ,taking a new place of duty as an England envoy at the case of instability even he published a letter showed an order to the ruler of Iran, protecting him in every conditions

The number of students increased in 1834, in addition to the 5 Armenian students 5 Iranian students also joined in class. Haas became very famous in so far as the king requested him for establishing a school in capital.

Haas planned for a trip to Tehran but it was useless, until the 1835 the number of his Iranian students increased (15-20 students). Haas taught history and geography in addition to the French language to his students, of course just the history of the Europe and the world geography because Haas was not familiar with the history and geography of Iran and other Islamic countries. He wanted to battle with Islam by teaching European educational books and bible. By developing the schools. He requested educational equipments and a teacher for teaching French from the mission of basil, though he had a lot of problems such as, the students of the school were changeable, he complained about the reduction of curiosity among Iranian students after some weeks. It showed that school had no satisfactory desirability for maintaining the students and there was no variety in the arrangement of it. The school was closed two times in 1835 because of the outbreak of plague in summer and cholera in fall in a way that all the AZERBIJAN was infected by cholera. In this situation Haas stayed in the city and cured the ill people.

HAAS had special goal in helping to the people, he wanted to introduce himself as a loyal person and afterward make use of from this atmosphere in favour of the missionary. The Russian ambassador gifted him a box of golden tobacco because of his loyalty and the emperor of Iran gifted him sun and lion circle (the sign of Iran kingdom).

Armenian's animosity was one of the HAAS's other problems; he had this problem at the time of arrival to the SHOSHI so he had to stop Armani's classes in 1835 because he wanted to abatement the possible riots in the city. HASS's students were from noble families such as SOLEYMAN KHAN who was the emperor's brother-in-law in TABRIZ. He requested from HAAS to teach the 7 years old crown prince. Haas thought the noble families have the optimistic point of view about the western culture and they can accept it easily and this attitude broadens among his students (Christianity is the Europeans key of success).

The students hoped by accepting the European culture they can eliminate the lag of their country and getting their lost power again so they withheld participating in one of the most important Islamic celebrations because they thought they are British and Christ. Haas wondered how Iranian thinks they are European just after passing a very short period of classes. He supposed Iranian has no curiosity and identification of truth so he thought the presence of a foreign actuation and normally presence of one European power in Iran is necessary. The activity of the mission of basil was forbidden in Russian in 1835. This forbiddance caused some of them go to the TABRIZ. The consequence of the mission of basil activity

forbiddance in Russia (the Russian ambassador couldn't protect the missionaries in TABRIZ anymore.) In the second half of this year the BLOMAHART's disagreements were appeared. BLOMAHART preferred the direct way of publicizing the Christianity instead of indirect way because it was not very useful in Iran and large amount of funding were spent in this way so he began publicizing Christianity among one hundred millions idol worshippers in Indian. Haas was worried about this condition, it seems he and other missions reacted in two ways: one of them is, HAAS wrote a letter to the mission of basil and mentioned in the case of mission giving up from the continence of work in TABRIZ he will work for American missionaries and other reaction was the missionaries of TABRIZ submitted a general plan related to the continuance of mission in Iran in may 24th 1836. They said one teacher training centre, must be built and 12 young Iranian must be trained for 5 through 6 years there. After finishing the four years training period these Iranian teachers should teach there for 6 years by receiving salary. Missionaries thought they can create a network of Christian teachers in Iran. Missionaries wanted to add to the educational material some courses such as general history of world, astrology, physics, natural philosophy and logic.

The mission of the basil translated one geography book in Persian language in Iran, this book was one of the suggested books for teaching in schools but BLOMAHART didn't accept it because the Iranian mission had no any progress in its job in comparison with the goal assigned in 1833. He wrote to the missionaries we can't accept that just by teaching logic, geography, history and other educational material can make ready the Moslems for accepting the Christianity.

The termination of Missionary School plan announced in 1836 and its school was closed. There were some reasons for breakage of the missionary schools such as: 1) the unfeasibility of direct announcement 2) the suitable opportunities of missionary in India 3) enormous cost of Iran missionary. But it seems BLOMAHART was looking for abrupt success and the people of TABRIZ didn't like Haas. He just communicated with nobles and he had no influence among ordinary people. Haas didn't trust to the Iranian people and believed Iranian people can't be like European Christians in regard to the race and religion so it was one of the reasons of his failure then Mohammad shah didn't support his school while the American schools were supported by him also the support of European governments from the mission of basil decreased. There were some agreements between the mission of basil and Americans but it altered to some tension and instability soon because the American association wanted to manage the Moslem missionary by itself. The selection of the Moslem students also was effective in failure of the missionaries.

4. Eugene Bourret's schools and lazariats

BOURES (8) came to Iran in 1837, he was a young Frenchman who studied the eastern languages and interested in visiting the eastern countries. He was invited by French scientific assembly to go to the eastern countries for implementing researches because the government of France had decided to send a group toward Iran embassy, mossier Guizot suggested to BOURRET for going to Iran and the government accepted all the cost of travel and the BOURRET accepted

the suggestion. He visited SCAFI in Istanbul then they arrived to TABRIZ on November 8th 1838 during this time the diplomatic atmosphere of Iran changed in favour of BOURRET and French, because Iran was fighting in HARAT war and had no good relation with England on the other hand after wars between Iran and Russian there was no good relation with Russian too so Mohammad shah and HAJMIRSA AGSI tried to make good relation with France.

Mohammad shah wrote a letter to GAHREMANA MIRSA who was the AZARBAIJAN commander and announced his approval about the foundation of school by BOURRET.

(Dear emperor GAHREMAN MIRZA AZARBYJAN ruler, I am pleased to aware you that Mr. EUGENE BOURRET who is one of knowledgeable men and one of major members of Christian community informed us about his purpose in trip to Iran his goal is scattering science and culture, so for implementing this goal he is staying in TABRIZ and he is going to teach France language , philosophy sciences , history , geography , physics , geometry and medicine to the Iranian young people with no expectation so in conjunction with the practical consequences that our young people can obtain in this way I command to you whenever Mr. BURE fulfilling his duty as a instructor you must hold up him in every feature and nobody should behave against this command, ((this letter was published in our palace.))

EUGENE BOURRET's school with the name of DAROL ELM was established in TABRIZ in 1839 and the Moslem people registered their name at the mentioned school in a report BOURRET has written: the school is going on well an it has 14 students that three of them are Armenian and the rest of the students are Moslems, after passing 5 months the number of the students increased to 31 students. MR BOURRET was teaching geography and French and one Iranian teacher was teaching Persian there, he wrote the first France-person dictionary by cooperating of those students. One of the reasons of success in this school was free of charge teaching of France language there, BURE hoped familiarizing the Iranians with Europeans in this way then he opened another School in ISFAHAN.

CONTE DE SERCY the first ambassador of France to Iran could obtain the order of ((the basis of freedom) from Mohammad shah in April 1840 then it was published in France, Armenian and Persian languages in Iran.

In accordance with this order Iranian Christians got the equal rights like all the people in Iran. The relation between Mohammad shah and BOURRET, S groups was very good. He bestowed 1500 books left at the Jesuit church (9) to France Lasarites then BOURRET wanted to establish one Humanital University but he couldn't.

TEOFAN and then one of the LAZARITES churchmen named AMBROISE FOMIER after BOURRET, S trip to ISFAHAN begun their job at the school of TABRIZ. LAZARISTS went to OROMIYE and KHOSROABAD SALMAS with the Christian inhabitants, most of them were catholic and founded a school there. The announced number of the schools in Christian villages was 21 schools.

France language and religious and Christian sciences a little Persian language, geography and some other scientific material were taught at these schools. Americans interpreted the presence of BOURRET as a serious danger. Britain's

also tried to misfit him so they were scattering negative rumours against him after these circumstances a huge riot was created by Armenians since they wanted the LAZARITES expelled so Mohammad shah had to send soldiers to control the unstable condition. BOURRET was under the danger of death and the unstable condition was a big threat to him so he moved toward OROMIYE but in the middle of the way he got a letter from foreign ministry of French it showed that he has been assigned as a consular of BETOALMOGADAS therefore he must go there. BOURRET left the Iran, after him, catholic churchmen and LAZARISTS continued their activities.

But when Conte de secrecy the France ambassador left the Iran British and Russians planned to take revenge, at first they actuate ORTADAX Armenians to attack against the catholic schools of OROMIYE. Russian ambassador was substituted; he was protestant advocators and disagreed with the influence of French. He asked CLAUZELL (10), DARNI and LAZARISTS churchmen deposal. Even there was a plan for chastising the catholic churchmen so LAZARISTS requested assistance from one of the clergies of OROMIYE but it was useless because there was a big pressure from Britain and Russia.

The Catholics behaviour made American protestant missionaries annoyed they complained against LAZARISTS. They wrote two protest letters and sent it to COLONELSHIL and CONTE MEDEM.

France government decided to send DE SARTIGE to Iran embassy because of the pressures against Catholics. He came to Iran in 1844 and went to OROMIYE.

Catholics started activates again in this way but under some precondition such as: they couldn't invite any body to their religion, after that catholic churchmen arrived in Iran without permission and passports; it shows religious missionaries and expansionist joined together. LAZARISTS could build 26 men school consisted of 400 students and 6 women school and a number of hospitals and nursery in spite of difficulties and struggles with rivals until the last times of MOHAMAD shah period. They founded SANLOUI School in Tehran, also women schools in TABRIZ, OROMIYE, SALMAS and ISFAHAN were built by SAINT VINCENT- DE-PAUL (11).

LAZARISTS had religious activity at the GAJAR kings next period in Iran, but we can write the reasons of EUGENE BOURRET,S schools failure as following: a) Britain and Russian protection from rival missionaries, it means American Protestants b) LAZARITE feeble Economical situation in comparison with American missionaries and LAZARITES manners in regard to other Christian factions. They were backbiting against the rivals (Protestants) and offending, such as murder and burglar then they tried to cut the Protestants relation with Iran instead of educational programs and teaching or they altercated with ORTODOX Armenians and called them pagan(ZENDIG).

5. American missionaries in Urumia

American missionary's organization recognized the OROMOYE city better than TABRIZ. OROMIYE was one of the major centres of ASHORIANs and NASRANIANs population. Justin Perkins and his wife were dispatched by

American churches organization (special for missionaries) to Iran in 1834(summer) so that he publicize missionary among NASTORIS. The Iranian Christian NASTORIES population has been estimated 20000 people.

It was not possible communicating with NASTORIANS easily. He stayed in TABRIZ for learning ASHORO language at first. He went to ORMOIYE with Hass for increasing his insight about ASHOREIS. (FALL) He could create good relations with ASHORIS and found one translator among them then the translator was ready to go to the TABRIZ as a PERKINS assistant. He was a bishop and he could learn English from PERKINS. He visited Mar Elias and they talk about different issues and Perkins said he will come to Urumia again he went to there again in November 1835. Dr ASAHAL GRANT AND JEMES L .METRIIK arrived to UROMIYE for sustaining him. Russian diplomat and ALECSANDER NIES backed American missionaries more than the mission of basil. Perkins was editing educational books first he wrote one self-study English dictionary then he established a school consisted of 7 students in 1836(12) but the facilities of school at first was very little and it had no books, papers and blackboard at all he filled a box with sand for teaching mathematic and the students wrote on it by fingers. The number of students increased little by little the time table of the school was 6 hours a day consisted of reading classes, writing on the sand, learning mathematic using abacus, reading the holy book by using old ASHORI language and English for adults but 3 months later the school was closed but no one knows why? Perhaps the reason was Iranians New Year celebration (NOROUZ) the number of students reached to 55 on 1839 and there was no change in the number of students for some time then the location of the school was changed and it was open 24 hours a day in this way a closer relationship was created between the students and missionary. Missioners could make most of the students as good members of their church; of course the school had some problems at first such as families didn't want to register their children's names they said if their children go to the schools every day they can't work on their fields so the managers had to change their educational plan therefore they decided to prepare feed and clothing for poor children and also paying some money to the families per month so the parents didn't prevent registering their children in the schools so it shows the students of Perkins school were not from noble families and in this school only Christian children could register their names therefore the Islamic clergies of Urumia didn't protest against him even they visited the mentioned school.

Perkins tried to imitate from ASORIES customs in his life then he wore clothing like them and used a hat as long as 60 cm and tired to be with people, worked with them, in this ways he wanted to be friend with the ordinary people.

He called NASTORIYAN: my nation, after that he got the special gift from the Mohammad shah because of his hardworking and endeavour to instruct and distribution of sciences among young people, of course it was mentioned Perkins should try more and spend his whole energy for best instruction of young students and he should teach history, geography, geometry and mathematics to them. The number of students reached to 156 and at the next year to 1143. American missionaries established more than 50 schools in 1851 and according to the statistics more than 58 primary schools (13) were established by them. Perkins wrote: when he left UROMIYE the American group had schools in some villages near the UROMIYE and its members were 46 people and Mohammad shah cared about it, these schools belonged to Christians and when GASEM

MIRSA wanted from American mission that one non Christian school should be established for teaching English to Moslem children but American didn't accept because they wanted to extend Christianity and protestant and gathering Christians toward themselves not teaching English to the Iranian and finally one Armenian established one school, who was learned English in India and he taught Persian ,English ,history ,geography ,and Islamic sciences, the Perkins's school was successful in teaching language and publicizing protestant religion. Perkins spent 8 hours a day for translating books and some information in ASHRI language at the first years of his inhabitancy.

The educational period at Perkins school was 5 years and the students learnt English, Turkish, Persian languages and mathematic, history and geography then SERIANI language was added so the graduated students could establish some schools consisted of 8 students for 1.5 lira as a fee. Perkins group succeed to establish girls school, JOSEF WOLF got the permission of building one girls school from the king when he had visited Iran in FATALISHA period. FIDELIA was going to build one 24 hours girl's school and MARIOHANNAN bishop helped him. He brought his sister's 7 years old daughter and one 2 years old girl so he made the basis of building the school ready.

PHISK wanted from mission to accept the 6 girls cost at 24 hours school and he had accepted so PHISK School was working consisted of the 6 girls in hostel department and 23 boys in diurnal course. The holy book in ASSORI language and mathematic and geography were taught in this school, holy book added to the educational courses later. FISK arranged the educational program of school in 1845. He showed that his main goal from education is training holy book and Christianity .Alder the writer of a book named American missionary in Iran pointed out the American mission endeavours for making the Iranian people Christian and changing their religion in this way and it was written if the students of this institute didn't understand the fact of Christianity and didn't change their religion it was not the fault of institute.

PERKINS first translated the verses of holy book in AHORIAN language then wrote them on cards and distributes those cards among people but it didn't satisfy the ASHORIS necessities and they need to open a print house so they founded one print house in 1840 and Mr. BREATH was the chief of this print house until 1900. They printed 600 text and 3600 assertions that was consisted of 510000 papers most of these assertions were against the catholic religion. The first assertion was published and the subject was about 22 reasons for avoiding from catholic religion.

One periodical was published by this print house in SERIAN language (14) it was the second periodical after KAGAZE AKHBAR. The first number of the periodical (light ray) was published in 1849. The different issues was printed in that periodical such as: in one edition some parts about schools: school has a lot of benefits and the nations established the school have special care about it because in the case of schools absence rate of depravity will increase and the boys will grew up stupid and irregular those young's that Christ scarified himself for the sake of them. If scholars have no knowledge how they can teach other people ignorance will be scattered every where so every village needs one school just as every dark room needs light in other countries the parents themselves made the schools and bought the facilities of education then they paid the

teacher's fee by themselves too. They sent their children to schools because of good education and better future for them. In regarding to the ASHOREIS history it was mentioned that they had more care and attention about the schools and they established some schools that children of other tribes could participate at them then it was mentioned about the ADISE ORSA School that had been established by ASHORIAN ancestors. Perkins returned to America in August 1869 and died at the last days of that year he was cooperated with the missionary for 36 years and when he died the first step of protestant missionaries' services has finished. He has written two books about his activity in Iran and one of them is in residence of eight years in Persia he printed it in his trip to America in 1843 and his second book is missionary life in Persia ,it was published in 1861. He arranged SERIYANI alphabet according to the old editions of SERYANI language. He also edited a book related to the structures of language and one essay about correct way of writing in ASSORI language. After the Perkins death the central association of American missionary announced that majority of Iranian NASTORIES heard the message of Christianity up to now so missionary thought it is time to announce enunciation of bible to the other nationalities inhabitant in Iran because the missionaries mission in Iran was changed and the title of the mission changed to American mission in Iran. foreign schools were very dynamic in Iran until REZA shah ordered to eliminate the foreign schools for the Iranian students in Iran after that the foreign schools activities in Iran have been changed.

6. The consequences of the first foreign schools on Iran

Totally foreign schools have had far-reaching influence in Iranians culture so people were very interested in learning foreign languages such as English and French the first French-Persian dictionary and self study English dictionary were edited by these schools later, the new ASSORIAN literature was introduced in these schools and news paper and print house were established following these schools. All these developments influenced the culture of people as it was mentioned theses schools developed in different cities of Azerbaijan in a short time and they were not restricted in small areas furthermore there was total optimistic idea about these school among ordinary people . They thought foreign schools caused religious and cultural development but it was no correct because the goal of these schools was developing colonialism among the common people and totally missionaries were active in Iran because of British and other western countries positive ideas and supports. All of these schools (HAAS-PERKINS-EUGENE BOURRET) were backed by expansionist European governments and it was at the time when three expansionist governments (England -France-Russian) challenged with each other for the sake of Iran.

Sir Henry Ellis England kingdom's special envoy declared, for one protestant superpower like England using protestant missionaries is certain. Ellis encouraged Basil and American missionaries for seeking the support of England. He prepared some passports in Persian and English languages and ordered to the Iranian officials for supporting and helping the missionaries. In this way mission exploited from the diplomatic developments in Iran and England then one of its officials determined precepts for Iran. Benjamin the first American ambassador in Iran described the difficulty and hardness of missionaries work and said the people of Iran are very fanatic and changing their religion is very difficult task and he

added missionaries' presence in Iran is very useful for American government and he wrote: if I stayed some other years in Iran with the help of European countries embassies I was decided to make free the activities of missionaries in Iran. He believes diplomatic support from religious missionaries is one of the most difficult duties of American embassy in Iran. He is lives it takes a lot of time religious missionaries need the help of the embassy more than other merchants and other foreign people he also believes that churchmen's job is like a seed under the ground and it takes time to see the brilliant consequences. Catholics vicegerent believed Americans missionaries seek diplomatic goals and England supports them too. There was close relationship among British and American missionaries.

Dr RIACH who was the British physician of the embassy wrote to Perkins in detail about the role and influence of Europeans (England- Russian) in Iran. The high official of France decided to exploit economically and diplomatically in Iran they pretended they are the greatest supporter of Catholics in the east and they like propagation of LAZARITE, S attitudes.

The foreign minister of French ordered to the other official to prepare some information (15) about catholic installations in Iran and some information about the possibility of BOURRET school success, it shows bourgeoisie desires of western countries. Some information prepared by missioners and the managers of school for delivering to the European governments' it was in favour of west Colonialism. All the present missioners in Iran gathered their reminiscences in Iran in a book and informed their governments about the current situation of Iran such as PERKIN, S report about the condition of FARAMOSENERY and the people's interest about it then JOSEF WOLF reported about inspiration of some high rank official in FARAMASONERI such as SOLEYMAN PASHA the ruler of KHOY in AZERBAYJAN. JOSEF WOLF introduced himself as an informed person about modern FARAMASIYONERI. He suggested in his itinerary that the best way to fulfil the desired goals is, dispatching British physicians to Iran. The foreign schools had great influence in prevailing of western culture and depredate of local Iranian culture. Catholic and protestant missionaries were going to depredate local culture as soon as possible. it was mentioned transferring western culture is very vital and necessary for fulfilling the desired goals.

PHANDER thought when Moslems became acquainted with the European missioners, s knowledge the Islamic community will be more flexible and he emphasized the more readiness of noble families in accepting the western culture so his major goal was distribution of western culture in Iran and cleaning some absurd thoughts from Islam(in his idea). Most of the missionaries publicizing the west secular in addition to the Christianity, when most of the schools related to the missionary couldn't change the Moslem student's beliefs tried to fade their Islamic beliefs.

Consequently missionaries created a doubt to religion among the Iranian people they publicizing a kind of inattention about religion in spite of that their main activity was developing Christianity among Iranian people. The first foreign schools founder like most of other Europeans humiliated the Iranian people (Moslems and non Moslems)

PHANDER the person who suggest the foundation of schools in Iran told Iranians are proud, liar and fraudulent, HAAS claimed Iranian Armenians are full of sins and deceiver and they are snakes. Perkins introduced NASTORIES as a vinous people.

One of the most important and difficult duties of Christian missionaries was teaching holiness to the ASHOREIS, he believes religiosity is impossible among these foolish people. Perkins called Moslems wild Mohammedans, in his idea Mohammad followers were proud, monopolize, immoral, avenger, bloodthirsty and perishable people and said they are like an ice mountain that the temperature of the Christianity will melt them. They thought confidence to Christianity is equal to western civilization. Regarding to this hegemony desire they imagined can transfer old remains of Iran to the Europe. The American group found the oldest bible among NASTORES and took it to the America. The American mission could take old handwritten copies that they liked much. The different objects of Iran that kept in Basel museum has been transferred by religious missioners to the Europe.

One of the most important missionary's achievements was creating disparity between different Christian religions. Different Christian religions lived side by side for a lot of years peacefully before missioners coming. But when missionaries came to Iran big disagreements were created among them YAGOB COBLER reported during the time of missioners arrival they couldn't educate even one sophisticated student. They just tried to them with protestant religion rants and perceive them to be enemy with ROM church. The PERKINS group created disagreement among NESTORIES and some of them accepted the protestant religion. Dr GRANT frightened when he saw the NASTORIES religious books then he reported petulance and irreligious among them and tried to change and improve them so NASTORIS grandee disagreed with American missionaries so American Protestants educations lead to decadence of eastward church. ASHORIAN found that American missioners didn't want to develop their poor churches but they tried to change the people's religion and make them Protestants.

Patrick NESTORI tried to close the Perkins schools he could do it in some regions and couldn't in some other regions. There were disagreements among religious missionaries, Catholics and protestant groups published 600 sheets accusation letters against each other (16).

The European governments had main part in these disagreements then the struggles between Catholics and Protestants caused ottoman invasions. When Mohammad shah evaluated this situation in spite of his order about freedom of missionaries activities in Iran he banned the mentioned activities.

LAZARISTS often backed Armenians and KALDANEIS, these minorities misused the western countries protect and crated instabilities at the time of international crisis in Iran, even they slaughter and sabotage in a way that some kind of distrust was created about them among Moslems and minorities. The differences among religions caused the destruction of the cities and different religious churchmen struggled together and had no good relation and educating the students had no stable program and method and every thing was irregular. GREGORAN Armani's and the protestant Armenians struggled together insofar as

Mohammad shah sent soldiers to bring the peaceful condition back.

The presence of the foreign schools caused some of the Iranian migrated from Iran to overseas such as when American missionaries came to the UROMOYE and founded schools and taught English and protestant religion some of the ASORIANS went to the America and inhabited in Chicago in fact on of the missioners cultural diplomacy was the migration of Christians. KLOZEL the LAZARIST French churchman took some of the KALDANIES students to the French among those students some of them became lazarettos and other came back to Iran, one of them was NAZAR AGA who was studied in LAZARISTS School and got high political ranks in Paris (17).

7. Conclusion

European missionaries publicized directly Christianity in SAFAVI period and disapproved the Islamic beliefs strongly but they concluded that indirect publicizing is effective in Iran (last days of FATALISAH period) so they founded some schools. The first school was founded for Armenians and Moslems by HAAS on 1836 and continued to its work until 1836 but it was closed because of reasons.

Perkins found a school in Urumia special for ASHORES on 1843 and he build other school in different cities, and then French Catholics established one school in TABRIZ via OGEN BURE too on 1839 so LAZARASIT churchmen helped OGEN BURE and build other school in ISFAHAN and URIMIYE. All the religious school was founded by religious missionaries that their goal was changing Iranian people's religion and made them Christian these school tried to propagate west culture so disagreed with Iranian and Islamic culture. They called Iranians (Moslem and no Moslem) swindler and liar. European governments used from the religious missionaries to fulfil their own goals and so protect them. These schools just taught holy book, English and French languages and didn't care about chemistry, physics, and so on.

Some of the consequences of missionary's presence in Iran are as following: Contention of Christian different factions, threaten the Iran independency and the migration of some NESTORIS and ARMANIANS. Generally missionaries were not interested in modern sciences and their school was just a place for publicizing Christianity.

If missionary's schools trained modern sciences in Iran actually, they could eradicate far distance in modern sciences between east and west somewhat.

Foot notes

1- It seems protestant missioners that came to Iran were two physicians their names were HOECKER and RUFFER they came to Iran in the cover of physicians but their main goal was fulfilling the goals of western countries but they couldn't.

2- PHANDER wrote some books about stability of Christianity but Islamic clergies criticized him. He debated with SHEYKH RAHMAOTOLLAH HENDI in India in 1853.

AZHAROLHAG is one of the achievements of this debate.

3- for familiarity with the process of missionaries' creation in America.

4-HOMA NATEG has mentioned the story of these two people at the time of arrival on 1830 while ALDER has written the story in 1832.

5- ASHORIAN has been called with different names such as ASORI, SERIYANI, NASTORI, KALDANI and NASRANI in Iran. At first they were follower of their local church (SHARGE ASHORI) but they were divided in different kindling by religious missionaries entrance.

6- Catholic missionaries goal in Iran at SAFAVIEDS period.

7- LAZARISTES were one Christian faction, it had been founded by Saint Vincent de Paul in Paris on 1625 and then it sent its missionaries to Iran.

8- In VALDBUGER, s book the translator has written EUGENE BOURRET as ONGENEBURS.

9- JOSINS were a faction of catholic, they began their activity in ISFAHAN .TABRIZ, SHAMAKHI and IRAVAN they activity continued until SAFAVI period in Iran and the most of the churchmen in this faction were from French.

10- Clauzell has been known as the architect of LAZARITE in Iran; finally he died after 41 years staying in Iran.

11- To be familiarized with the France Christian group and LAZARITES educational activities in Iran.

12- Ms NATEG has been written the book, SCHOOLS OPENING, with 17 students in 1837.

13- These numbers seem exaggeration because it was said the number of them increased to 45 schools until 1851 but VALDER wrote that the number of them were 58 schools and the number of students were 1024 students.

14-possibly the first newspaper in Iran was written by Dr MACNIL in AZERBAIJAN-TABRIZ but it was not printed in 1821.

15-for example he wanted o recognize wealthy families in Iran liked what kind of goods and found which of them were decorative for them then he wanted to create a new market for selling the French products.

16- One newspaper was published by HOT LAZARITS in KALDANI language and the name was KALAD SHERARA it means (the message of truth) and in fact it was published as a reaction against American group's newspaper (ZAHER YARDA)

17- about the NAZAR AGA, S life refer to NATEG.

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A Model for Teaching in Australian Multi Lingual Mathematics Classrooms

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Abstract

The breaks in shared understandings, and their resolution, are interesting moments in students' learning. The identification of such moments is critical for quality teaching. Such breaks may be of a cultural, social, or of a cognitive nature like that of language misunderstanding, or some mixture of these. The central concern of this discussion paper will be a cognitive conceptualisation of the impact of the language context, particularly for English Language Learners (ELL) in Australian urban mathematics classrooms (Clarkson, 2004a). Many urban Australian classrooms have students who collectively speak more than 10 languages, drawn from various immigrant communities. However, much mathematics is taught under the assumption that the classroom is a monolingual English learning environment (Clarkson, 2006c). Hence this is an important problem for Australia, but may have resonance for other countries that have extensive immigrant communities. After briefly noting the interplay between language and mathematics learning (Ellerton & Clarkson, 1996; Moschkovich, 2002; Pimm, 1987, Seah, Atweh, Clarkson & Ellerton, in press), the propensity of bilingual students to use both their languages and the advantages this bring for their learning (Cummins, 2000) including in mathematics classrooms (Clarkson, 2006a; in press), various possibilities for enriching the language of mathematical classrooms are discussed.

Keywords: mathematics education - bilingual teaching - immigrants - mathematics understanding - mathematics teaching

1. The importance of students' first languages in education

The breaks in shared understandings during classroom discourse are often the interesting moments in students' learning. Since classroom activities are attempts at creating situations when shared understandings do occur, the identification of misunderstandings that lead to breakdowns in the flow of ideas need to be identified quickly by the teacher and student, and dealt with in a manner that prevents these moments from being catastrophic. Interestingly bi or multi lingual students often use all their languages in trying to find the solutions to the mathematical problems they are presented with in classrooms. They do not restrict themselves to the teaching language being used (Clarkson, 2006a; Clarkson & Indris, 2006; Parvanehnezhad & Clarkson, 2008; Setati & Adler, 2000). This issue is of importance given that the vast majority of classrooms in the world are multilingual. To bi and multi lingual teachers, this should not be a surprising statement. But to monolingual teachers, which is often the case in Australia, it is often a surprise (Clarkson, 1995). The key point here though, is that any misunderstandings that are language based clearly can be the cause of breaks in shared understandings.

The dependency of mathematics on language has been acknowledged in recent times (Ellerton & Clarkson, 1966). The notice that good mathematics teachers

take of the language environment is seen when they begin the introduction of new ideas. They often do so by using informal language based on ideas that students are familiar with, often located outside the classroom. The good teacher then moves the students to use more structured language in discussing the mathematical ideas, until they are ready to introduce the more formal precise mathematical language that is appropriate for the particular grade level. This model of language use suggests a definite flow from informal language through to the appropriate use of precise mathematical language, both in verbal and written forms.

In multi lingual classrooms, as well as the flow from informal to mathematical language, the different languages that students will use needs to be accommodated. This is crucial since research has shown that the competence that bilingual students have in both their languages, not just the teaching language, is a crucial factor for academic competence (Baker, & Hornberger, 2001; Cummins, 2000). In particular this result has also been shown to apply to mathematics (Clarkson, 1992; Clarkson & Dawe, 1997). Hence students need to be encouraged to develop all their languages, as well as the different types of language including the appropriate mathematical language. This will enable deep conceptual thinking and communication to occur.

One way to encourage a rich language environment to grow is for teachers to plan to use open-ended questions. Such questions give rise to multiple correct solutions (Sullivan & Lilburn, 2002). When learning situations are created around these types of questions, inevitably students will need to defend their answers. Hence they will learn how to justify and explain their answers to themselves and others. In these situations the teacher's role is to engage the students so they are lead to a higher level of thinking and discussion. The role is one of a supportive gentle probing inquisitor of the ideas being generated by the students. The teacher gives emotional support, and acts to provide a safety net for the students who are engaged together in 'risky thinking', but rarely should the teacher be the provider of answers. This role goes beyond asking students what answers they found, how they obtained them, and then giving positive or negative feedback as appropriate. The teacher needs to engage at a deeper level by careful use of follow up 'why' type questions. After actively listening to the students' answers and acknowledging them, the teacher needs to probe further ('Explain that bit to me again'; 'Does this part of your answer seem correct to you ... Why?'; 'Explain that relationship to me again. '), or add guidance ('Can you explain that previous example to me please. '; Does that previous problem relate to this one in some way?'; 'Could this ... be a legitimate answer for this problem [giving a counter example to that obtain by the student]'), and sometimes reteaching to enable students to progress ('Why do you think this [pointing to a term or symbol] means ...?' and hence eliciting possible meanings of an ambiguous term or proposition).

In challenging the students cognitively in this way, undoubtedly the teacher talk, and progressively the student talk, will use logical connectives (e.g. if, but, however, if ... then, and) as their ideas are built into explanations for their solutions. Interestingly such teachers have probably carefully planned to introduce the obvious mathematical terms that are associated with mathematics, such as the names of shapes, ideas and of operations, etc (e.g. dodecahedron, cosine, minus, mass), the comparatives (big, shorter, hottest), and so on.

However there seems to be little consideration given to teaching students how to use the language of explanation (Clarkson, 2004b).

In summary, throughout this process teachers will be encouraging students to use both their L1 and the language of teaching. Hence their L1s will be elaborated with specific mathematical vocabulary, but they will also be ensuring their L1s can carry mathematical argument.

2. The importance of students' communities

Although the spread of knowledge is being promoted through our globalised world principally through ICT, yet the notions of mathematics need to link closely to the school's communities if these are to have real meaning for the students. In some ways it seems relatively easy to engage students' communities in other areas of schoolwork. If one is to take language studies, then there is obvious overlap. Links to social studies, history, geography and even religion can be made without too much effort. The Multiliteracy Projectⁱ in Canada has explored the use of immigrant primary students writing dual language books as students seek to articulate and explore their coming to a new country where the teaching language has changed for them. In creating their books students make links to the above areas of the curriculum. But links made to mathematics seems to be more difficult. A similar dual language project might be something worth exploring for mathematics, both in such immigrant communities (discussed here), or in communities where for whatever reason the teaching language and students' L1s are different for a substantial number of students. However more directed activities that raise the explicit possibilities of mathematical connections would be needed.

There are some reasonably straightforward issues that could be explored by students. Thomas (1986) compiled a listing of various symbols and algorithms embedded in different languages that refer to the same mathematical idea or process. Starting with these listings, teachers could ask students to either check them with their parents to see whether the parents had used these when they went to school, or work with their parents to extend the listings to include all the languages represented in a classroom. Clearly a comparison of algorithms would lend itself to discussion of efficiency and ease of understanding, both of which are important. More exploration would lead to deeper understandings of historical development of number within other societies, particularly for non-western societies. An exploration of web sites focused on such number work would be fruitful, and mean that for some students, their first language would become the only means by which some sites could be accessed.

Measurement and spatial ideas are also important. Weaving patterns lend themselves to mathematical analyses, but notions of time are also worth exploring. An historical exploration of how people from students' original countries thought of and measured time would be interesting. In western cultures there is a basic notion that time travels forward in a straight line (the arrow of time). In some cultures in Papua New Guinea, notions of long expanses

ⁱ <http://www.multiliteracies.ca/index.php>

of time are thought of as an arc of a circle, although it is problematic whether there ever is/was a complete circle. Clearly the origins and thinking embodied by the 'Chinese' (and its variants in Southeast Asian countries) calendar would be fruitful to explore with the help of knowledgeable community members.

The use of literature is another possibility. Storybooks have been specifically written for teaching mathematical ideas (e.g. Hutchins, 1970). As well folk tales can be a source for mathematical thinking. For example, explorations of estimations of times and of distances can be sourced from the tale of Little Red Riding Hood (Clarkson, 2006b). There will be similar tales embedded in the languages of the students that can be thought through from a mathematical viewpoint. But the students again will need to set out on such an exploration with the adult members of their communities. It maybe that appropriate tales discovered by the students are only in oral form, and the student(s) will need to translate them into written form. This will mean rich discussion on how to translate mathematical ideas into the teaching language of the school, the students learning (probably again) that often, simple transliteration is just not possible.

In each of the above explorations the input from the students' various communities is the key source. Students could create their storybooks, in part at least using digitally recorded interviews with members of their own communities, as explanations and ideas are explored. Again translation for the whole of their classroom community into the teaching language is valued so it gives access to all, but does not detract from the power of the first languages being used. Such activities may go some distance in first overcoming misunderstanding of a cultural and social kind, but further and more importantly, empowering those cultures within the new society of the students.

3. The importance of weaving mathematics into the students' lived environment

Mathematics is being woven into students' dealings with real environmental issues faced by rural school communities in Victoria, Australia, at the present timeⁱⁱ. Though these activities, students are experiencing mathematics as a tool for solving real problems in their environment, rather than solving endless text book exemplars that rarely connect with their own lives. One way schools are fostering sustainability notions is through gardening. Two questions that the students think through are how much water is needed for the school garden, and how is it best to distribute the water, both of which impinge on mathematics. A third question deals with worms.

The first question is relatively straight forward. In one school young students in grades two and three set up experiments where they selected various seeds, sowed them in various old plastic containers, and administered in a controlled manner various quantities of water. They found out if you drown the seeds, they will not grow. On the other hand if they get no water, they will not grow. But

ⁱⁱ Schools involved in some ASISTM (Australian School Innovation in Science Technology and Mathematics) projects

somewhere in between, seeds do germinate. Growth is dependent on many things, but certainly there is a fairly specific 'range' of the amount of water that optimises seed growth. The students were able to make charts, tables and draw some basic graphs to highlight their important results. One of the interesting things about this situation is that it does not happen in two to three minutes. That is different for traditional mathematical 'problems'. Here is a situation that takes days and even weeks to solve.

The more interesting question was the second one; how do you distribute the water to the plants in the garden. After setting up a series of buckets under drinking taps to collect any spillage, and at set times in the day emptying the collected water into a larger retaining tank, the older primary students then had the problem of how to get the water from the retaining tank to the garden plots. One of the parents helped out by setting up a small pressure pump that allowed the water to be distributed under some pressure, rather than relying solely on gravity drip feed. The students also had access to piping that had water drippers at about every 50 cm. The question, as the students soon realised, became a spatial problem. How do you use the piping to cover the garden bed so the water is distributed appropriately to the vegetable plants? Figure 1 shows some of their designs they started to develop.

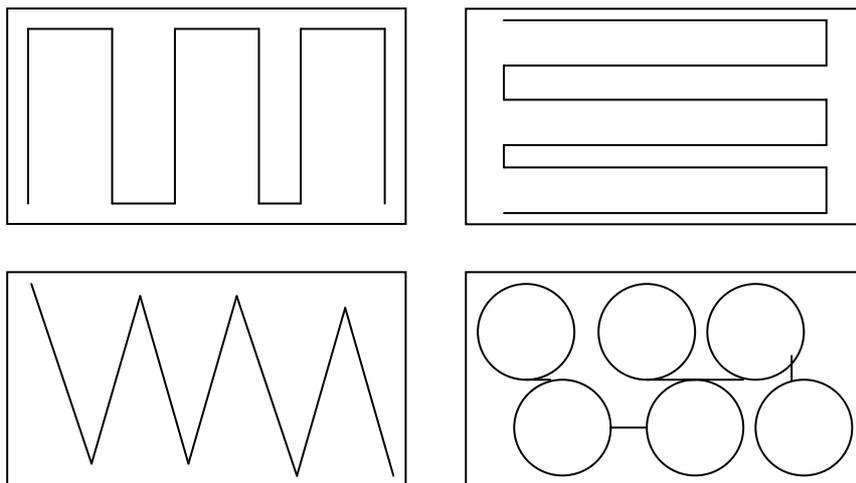


Figure 1: Students' preliminary designs on water distribution possibilities

Yet another group of students set up their own worm farm. There was a certain amount of recording of how long it took for the worms to produce suitable amounts of castings that were used on their vegetable plot, and this was plotted and graphed again. However the more useful mathematics came from the excess fluid that is produced from a worm farm and has to be drained from time to time. This 'worm juice' can not be used directly as a fertilizer but must be first diluted. The question then becomes what is a reasonable dilution factor to use. After various experiments the students concluded that 10% strength was best. Now at the heart of these calculations is the notion of ratio, a key concept in mathematics, often used in science, but in fact a very difficult concept. In this situation however when the students had a very practical situation with which they were engaged, the physical quantities they had to handle were real. This made thinking through of the mathematics that much clearer. However it was left to the teacher to build on this situational mathematics to lead her students to

the abstract place where they could also see the generalisability of what they had deduced for the excess worm juice.

4. Summary

The core of formal education is often the two subjects of language studies in the dominant societal language and mathematics. And yet mathematics is often taught as a subject so that students have great difficulty accessing its ideas. That is not to say that mathematics is an easy and obvious part of a culture. It is not, at least not at deeper levels. It is argue in this paper that students can gain some understanding of the deep nature of mathematics, and be the better for it, if attention is paid to the language of the students, the community in which they live, and problems are study that are directly accessibly by students.

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AN EXAMINATION OF CERTAIN PHYSICAL, SOCIAL AND EMOTIONAL CHARACTERISTICS OF CHILDREN WORKING IN THE STREETS

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Abstract

This study aims to examine the daily activities, health condition, and physical, social and emotional characteristics of children working in the streets. The children who were included in the study were between 6 and 18 years of age and identified as working in the streets. The sample comprised a total of 77 children (37 girls; 40 boys) working in the streets. The study made use of the "Questionnaire for Children Working in the Streets" designed to identify the socio-demographic characteristics of these children. It was found that 57,1% of the participating children were between 13-18; 51,9% were boys; 76,6% were attending school; the majority did not have bad habits such as cigarette, alcohol or drug abuse; 83,1% were well-groomed; 71,4% were happy, 75,3% were open for oral communication; 72,7% worked when the opportunity arose; and 67,5% sold bagels and tissue paper.

Key Words: Working children - children working in the streets - child labor - the issue of working children

1. Introduction

Child labor and the issue of working children is a major problem on the global agenda, which necessitates urgent solutions. Child labor is a universal concept occurring in almost all countries and constituting a major social issue (Öner 2002, Postallı 2003). Children working in unregistered work places or as unpaid family workers lead to contradictory statistical data about child labor and do not reflect the real numbers. Despite the existence of national laws and international standards in our day, factors such as poverty, education, migration, unemployment, traditional points of view, legal deficiencies, poor law enforcement, and demand by employers for child laborers are among the main reasons why children work (Warshaw 2001; Civaş, 2002; Anonymous, 2006). A strong link exists between poverty and child labor (Canagarajah and Nielsen, 2001). The reasons behind poverty, on the other hand, include unemployment, unequal income distribution, economic crises, inefficient use of national resources, rapid population growth, migration, unplanned urbanization, and black-market (Aptekar, 1994; Derrien, 1994; Tunçcan, 1999; Delap, 2001; Özdemir, 2002).

Children working in the streets are usually younger than 15 and sell bagels, water, flowers, tissue paper, and plastic bags, or shine shoes, carry people's

shopping bags in marketplaces, or wipe windshields in the traffic. These children spend the majority of their days in the streets, away from the protection of their families, in order to contribute to the family budget or meet their own expenses (Postallı 2003; Çırak and Çivitçi, 2004). Working may affect children's physical and psychological development negatively, and the risks of work life may lead to dangerous, irreversible situations. Abusing child labor is the most common form of child abuse and neglect in our day (Öner, 2002; Postallı, 2003; Ergen, 2003).

Problems of children who start to work at a very early age may be classified as psycho-social, economic, educational, health-related and work-related problems. Working in jobs that create physical, social and psychological stress; working in poor conditions; taking on too much responsibility; not being able to attend school; working in jobs that hurt children's pride all affect social and psychological development negatively (Bulut, 1997; Psacharopoulos, 1997; Somçelik, 2002; Ergen, 2003; Arnas, 2004; Ovalı, 2007).

Education is one of the most important factors preventing child labor (Derrien, 1994; Öner, 2002; Ovalı, 2007). In economically underprivileged families, parents may have low education and culture level and thus may hold negative opinions about educating children. Such parents have a doubtful attitude towards education and prefer their children to work (İlgazi, 1996). As a result, children get pressurized to work without adequate vocational or basic education (Altuntaş, 2002; Canbaz et.al., 2005) and lose the opportunity to pursue an education. In this way, they become deprived of a general or vocational education, which is necessary for success in work and social life and for intellectual development (Boidin, 1995).

All health problems affecting adults in work places affect working children who are not yet fully developed physiologically and psychologically (Parker, 1997; Varol et.al., 2006). Factors such as noise, pollution, dust, humidity, inadequate lighting, slippery floor and stairs may lead to negative effects on children's health. Eventually they may lead to visual and audio impairments, growth problems, and upper respiratory diseases such as tuberculosis and asthma. In work environments where health and safety regulations are not adequate, problems like work accidents and diseases occur often, children may become addicted to harmful substances (Karabulut, 1996; Öner, 2002; Sütoluk et.al., 2005) and they may even lose their lives (Karabulut, 1996). Children's physical development may be hampered by nutritional deficiencies due to unbalanced diets and sleep deprivation; by frequent illnesses due to weakness; by disfigurements in muscles and the skeletal system due to working in heavy duty (Bulut, 1997; Kolaç et.al., 2006).

During adolescence, developmental problems affect children even worse as physical appearance becomes important during this time. Not being able to keep up with peers physically or socially damages adolescents' psychological health by leading to a sense of inferiority. Additionally, fatigue and accompanying head, back, stomach aches and sleep deprivation may lead to depression in children (Altuntaş, 2002; Öner, 2002; Ergen, 2003). When there are no social security regulations or programs for children, they become deprived of their social security rights too. However, these children who work under physical and psychological risks at very early ages constitute a part of our society which needs the most protection (Öner, 2002; Akyan and Atak, 2004; Kolaç et.al., 2006). Whatever the reasons may be, child labor may lead to loss of childhood, lack of education,

deprivation of basic rights such as health and a healthy diet, and negative physical and psychological development (Aygölü and Görker, 1999; Öner, 2002; Canbaz et.al., 2005). In order to prevent these and take measures against children having to work in the streets, it is important to raise people's awareness. Therefore, the study aims to examine the daily activities, health conditions, and physical, social and emotional characteristics of children working in the streets.

2. Materials and Methods

The study was conducted on 6-18 year-old children working in the streets of Çankırı city center, within the scope of a joint project supported by the EU and ILO, which aimed to prevent child labor. The study sample consisted of a total of 77 volunteering children working in the streets (37girls; 40 boys) between the ages of 6-18.

The study made use of the "Questionnaire for Children Working in the Streets" designed to identify the socio-demographic characteristics of children working in the streets and their work status, daily activities, health conditions, and physical, social and emotional characteristics. The families of children working in the streets who participated in the study (47 families totally) were paid visits in their homes. After explaining the study to children and their families, the Questionnaire for Children Working in the Streets was implemented to the children through face-to-face interviews. The implementation lasted 40-50 minutes on average. Data about the children in the sample was evaluated and given in frequencies and percentages.

3. Findings and Discussion

Below are the results of the study aiming to examine the daily activities, health conditions, and the physical, social and emotional characteristics of child workers and to raise social awareness about the issue and make suggestions.

An examination of the distribution of parents' socio-demographic characteristics showed that 44,7% of mothers were between 26-35 years of age, 46,8% of fathers were between 36-45, and that 59,6% of mothers and 63,8% of fathers were primary school graduates. Such low levels of education show that the status of education in Turkey is not yet adequate. The results of other studies show that most such parents have had little education, mothers do not work, and fathers work as street vendors or shop owners (Öner, 2002; Akyan and Atak, 2004; Çırak and Çivitci, 2004). Children's education is the most important element of a society's future. Parental attitudes towards children's education are determined by their own education level and their own childhood experiences about work life.

It was also seen that 63,8% of the families comprise five to nine family members and that the income of 61,7% was below minimum wage. In other words, families are crowded but income level is low. Basu and Van (1998) have shown low income level as one of the most important reasons behind child labor. As can be interpreted from our findings too, reasons why children work include mothers

who do not work, fathers who work at low-paying jobs, and families who cannot make a living.

Table 1 Socio-demographic characteristics of the children in the sample

| Socio-demographic characteristics | Working Children | |
|--|-------------------------|------------|
| | N | % |
| Age | | |
| 6 | 2 | 2,6 |
| 7-12 | 31 | 40,3 |
| 13-18 | 44 | 57,1 |
| Sex | | |
| Girls | 37 | 48,1 |
| Boys | 40 | 51,9 |
| Number of Siblings | | |
| Only child | 3 | 3,9 |
| 1-2 siblings | 45 | 58,5 |
| 3 or more siblings | 29 | 37,6 |
| Duration of child labor | | |
| Works regularly. | 11 | 14,3 |
| Works in summer holidays. | 5 | 6,5 |
| Works at the weekend. | 5 | 6,5 |
| Works when there is an opportunity. | 56 | 72,7 |
| Type of Work | | |
| Shoe shine | 5 | 6,5 |
| Selling bagels or tissue paper | 52 | 67,5 |
| Other | 20 | 26 |
| TOTAL | 77 | 100 |

Table 1 shows that 57,1% of child workers were between 13-18; 51,9% were boys, 58,5% had one or two siblings; 76,6% were still attending a school. According to the results of other studies, the age of working children coincide with their development and that most child workers are between 10-15 and male (Rizzini, 1996; Altuntaş, 2002; Öner, 2002; Çırak and Çivitci, 2004; Erdoğan and Oto, 2004; Kolaç et.al., 2006; Ovalı, 2007). The fact that there are more boys working in the streets is attributed to cultural factors. Therefore girls are expected to help their mothers at home and boys are required to work outside home. At the same time, there is a moral limitation on girls working outside too. All of these factors lead to more boys working in the streets.

As seen from Table 1, 72,7% of child workers only work when an opportunity comes up, 67,5% sell bagels and tissue paper, none have social security. According to the results of Öner's study (2002), the majority of child workers shined shoes and sold tissue paper. In a different study by Postallı (2003), the most common jobs for child workers were found to be shoe shining, and selling bagels, water, plastic bags, tissue paper and band-aid respectively. In Çatak's study (2006), 31,9% of working children were found to be working in clothes factories.

Table 2 Daily activities of the children in the sample

| Daily activities | Working Children | |
|--|-------------------------|------------|
| | N | % |
| Daily sleep | | |
| 6 hours or less | 4 | 5,2 |
| 7-10 hours | 64 | 83,1 |
| 11 hours or more | 9 | 11,7 |
| Time of going to bed at night | | |
| 20.00 or earlier | - | - |
| 20.01-22.00 | 32 | 41,6 |
| 22.01-24.00 | 41 | 53,2 |
| 24.01 or later | 4 | 5,2 |
| Time of getting up in the morning | | |
| 06.00-07.00 | 55 | 71,4 |
| 07.01-08.00 | 22 | 28,6 |
| Nutrition | | |
| Adequate and balanced nutrition | 35 | 45,5 |
| Not much appetite | 16 | 20,8 |
| Sometimes adequate, sometimes not | 14 | 18,2 |
| Barely not hungry | 12 | 15,5 |
| Playing games | | |
| Plays games everyday | 35 | 45,5 |
| There is no time | 6 | 7,8 |
| Does not play games | 14 | 18,1 |
| Plays when there is an opportunity | 22 | 28,6 |
| Daily viewing | | |
| 0-2 hours | 39 | 50,6 |
| 3-5 hours | 26 | 33,8 |
| 6 hours or more | 12 | 15,6 |
| Favorite type of TV show | | |
| Cartoons-Children's programs | 32 | 41,6 |
| Women's programs-Magazine shows | 5 | 6,4 |
| News-Sports | 13 | 16,9 |
| Films and TV serials | 27 | 35,1 |
| TOTAL | 77 | 100 |

Table 2 shows that 83,1% of child workers slept between 7-10 hours daily, 53,2% went to bed between 22.01-24.00 at night, 71,4% got up between 06.00-07.00 in the morning, 45,5% had adequate and balanced nutrition, 45,5% played games everyday, 50,6% watched TV for 0-2 hours daily, 41,6% mostly watched cartoons and children's programs on TV. For healthy child development, perhaps the most important factors are nutrition, sleep and games. The facts that the majority of working children are in the pre-adolescent stage and do not eat properly increase their susceptibility to diseases and lead to problems with weight or height. It is natural that children who start to work before their development and growth is complete will be adversely affected by this both physically and psychologically. Health problems may arise when children's bio-psycho-social needs are not met fully and they work in bad conditions.

Table 3 Health condition and physical characteristics of the children in the sample

| | Working Children | |
|--|-------------------------|------------|
| | N | % |
| General health condition | | |
| Children's diseases | | |
| Yes | 57 | 74 |
| No | 18 | 23,4 |
| Does not know | 2 | 2,6 |
| Vaccination | | |
| No | 2 | 2,6 |
| Yes | 67 | 87 |
| Does not know | 3 | 3,9 |
| Not complete | 5 | 6,5 |
| Using health services | | |
| Yes | 71 | 92,2 |
| No | 6 | 7,8 |
| Weight | | |
| Does not know | 23 | 29,9 |
| 20-30 kg. | 18 | 23,4 |
| 31-40 kg. | 8 | 10,3 |
| 41-50 kg. | 12 | 15,6 |
| 51 kg. and more | 16 | 20,8 |
| Height | | |
| Does not know | 40 | 51,9 |
| 120-130 cm. | 6 | 7,8 |
| 131-140 cm. | 3 | 3,9 |
| 141-150 cm. | 4 | 5,2 |
| 151 cm. and more | 24 | 31,2 |
| Physical appearance | | |
| Well-groomed | 64 | 83,1 |
| Not well-groomed | 9 | 11,7 |
| Lacks information about personal hygiene | 4 | 5,2 |
| Activities | | |
| Engages in activities of peers | 68 | 88,3 |
| Has difficulty engaging in activities of peers | 1 | 1,3 |
| Hyperactive | 2 | 2,6 |
| Passive when compared to peers | 6 | 7,8 |
| TOTAL | 77 | 100 |

According to Table 3, 74% of working children had children's diseases (chicken pox, mumps, hepatitis A, measles), 87% had full vaccination, 92,2% used health services in cases of illness or for vaccination, 83,1% were well-groomed, 29,9% did not know their weight and 51,9% did not know their height, 85,7% did not smoke, 93,5% did not use alcohol and 92,2% did not use drugs. Although the majority of the children had been vaccinated, it is noteworthy that there are still children who had not been vaccinated, whose vaccinations are not complete and that mothers did not remember whether their children were vaccinated or not. Immunization is doubly important in the case of working children as they are vulnerable to diseases. Although the results seem to suggest that almost none of these children were using harmful substances such as cigarettes, alcohol or drugs, most other studies have concluded that the majority of working children

smoke (Tripathi and Lal, 1999; Stronski *et al.*, 2000; Öner, 2002; Sütölk, 2005; Kolaç *et.al.*, 2006).

Table 4 Social and emotional characteristics of the children in the sample

| Social-emotional characteristics | Working Children | |
|--|-------------------------|------------|
| | N | % |
| Affective characteristics | | |
| Joyous | 55 | 71,4 |
| Passive | 10 | 13 |
| Shy | 11 | 14,3 |
| Aggressive | 1 | 1,3 |
| Attention | | |
| Has difficulty focusing attention | 6 | 7,8 |
| Focuses attention easily | 49 | 63,6 |
| Loses attention easily | 16 | 20,8 |
| Can focus on certain things | 6 | 7,8 |
| Hobbies | | |
| Yes | 46 | 59,7 |
| No | 31 | 40,3 |
| Fears | | |
| Yes | 21 | 27,3 |
| No | 56 | 72,7 |
| Anger | | |
| Yes | 7 | 9,1 |
| No | 70 | 90,9 |
| Participating in social activities | | |
| Yes | 51 | 66,2 |
| No | 26 | 33,8 |
| Communication skills | | |
| Open to verbal communication | 58 | 75,3 |
| Not open to verbal communication | 15 | 19,5 |
| Verbal communication matches body language | 4 | 5,2 |
| Friend Relationships | | |
| Establishes communication easily | 67 | 87 |
| Socially isolated | 5 | 6,5 |
| Tends to be dominant in relationships | 4 | 5,2 |
| Fights frequently | 1 | 1,3 |
| TOTAL | 77 | 100 |

Table 4 reveals that 71,4% of working children were joyous, 63,6% could easily focus their attention, 59,7% had hobbies such as knitting, housework, football-basketball, reading, chess, drawing, listening to music, driving, and solving problems, 72,7% did not have any fears, those who had fears were mostly afraid of the dark, loneliness and animals, 90,9% did not feel angry with anyone, those who were angry felt so with their parents, 66,2% participated in social activities, those who did not blamed it on financial difficulties, unwillingness of families, lack of time and studies, 75,3% were open to verbal communication and 87% established relations with friends easily. Tyler (1991) found that child workers were largely independent, described their lives as active, were highly creative

and attentive, established a lively communication system and had supportive friend relations.

4. Conclusions and Suggestions

This study aimed to examine the daily activities, health condition, and physical, social and emotional characteristics of children working in the streets. It found that the majority of parents were primary school graduates and had less income level than minimum wage. It was further seen that 57,1% of the participating child workers were between 13-18, 51,9% were boys, 76,6% were still going to school, the majority did not use cigarettes, alcohol or drugs, 83,1% were well-groomed, 71,4% was joyous, 75,3% were open to oral communication, 72,7% worked when the opportunity sprang, and 67,5% sold bagels and tissue paper.

In line with these findings, it is obvious that national and local solutions are needed to tackle the basic reasons for child labor; namely poverty, unemployment, rapid population growth, and migration.

It is imperative that social security be provided for these children. This may be ensured by first identifying the lacks in the current regulations and then acting on them.

Projects may be launched to stop the perception of children as a means of subsistence or source of cheap labor, and to raise social awareness about the importance of child education.

Family planning projects may be started particularly in areas where child labor is common. Parent education programs would also be useful in these areas with the help of universities, Ministry of Education, Social Services and Child Protection Agency and NGOs.

Comprehensive studies may be conducted to clearly understand the reasons why child workers are having to work, their work conditions, family structure, health problems and individual characteristics. Such studies would lead to effective solutions.

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The Economic Impact of a Higher Education Institution

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Abstract

At present, the Portuguese government is trying to overcome the problem of the education level of the active population, one of the lowest registered in the OECD, and directly associated with the productivity rate.

For that purpose, granting a larger state's funding to the institutions with higher economic and educational impact is being considered. As such, the Higher Education Institutions (HEIs) need to prove their value, by accurately quantifying that impact, in order to enhance or secure their budget.

The main objective of this study is to determine how much the regions of Bragança and Mirandela benefit from hosting the Polytechnic Institute of Bragança. To calculate such benefits an economic impact model is being developed, based on Caffrey and Isaacs' model (1971), adjusted to the regions in analysis.

This paper describes the model and the conclusions of the first phase, which comprise a survey to the faculty, staff and students.

Keywords: Higher education - economic impact - regional development

1. Introduction

Currently, Portugal appears in the lowest ranks of the OECD regarding the number of school years of the active population. On the other hand, the rates of dropping school, before high school education is completed, are among the highest (in 2004 the dropping school rate was 39,4% while the average of the European Union was 15,9%, Guichard and Larre, 2006). Additionally, there are several studies that identify the situation of low educational level and consequent high rate of non specialized workers, as one of the main reasons for the portuguese low productivity and lack of innovation (Guichard and Larre, 2006).

The portuguese government acknowledges this and is trying to reverse it by selecting the institutions with larger economic and educational impact for a larger state's fundingⁱⁱⁱ.

ⁱⁱⁱ Law n° 37/2003 August, 22nd changed by the law n° 45/2005 August, 30th.

As such, the Higher Education Institutions (HEI) need to prove their value to obtain a larger budget, or just maintain the present one.

Although HEIs are generally recognized, not only as learning, research and innovation centres, but also as important mechanisms of regional development and economic growth, it is essential that they can accurately quantify their impact^{iv}.

The main objective of this study is to answer the following question: "*How much do the regions of Bragança and Mirandela benefit from hosting the Polytechnic Institute Bragança?*".

To achieve this, the activities and cash flows that are generated only due to the existence of a HEI were selected, and an economic impact model adjusted to the regions in analysis is being developed, based on Caffrey and Isaacs' model (1971). This paper describes the model and the conclusions of the first phase, which comprise a survey to the faculty, staff and students.

2. Analytical Frame

One way to measure the total economic impact that results from the existence of a HEI is to estimate the additional impact that occurs, above the regular economic activity level if there was no HEI in the region. The impacts can be identified as direct, indirect or induced. The direct impacts are the cash flow introduced in the region; while the indirect and induced impacts are obtained from the direct impacts after the application of a multiplier (Carr and Roessner, 2002).

In the empirical literature two main approaches can be identified: the traditional economic-base and the skill-base approaches (Brown and Heaney, 1997). The first one, measures the total impact in local employment and revenues from the total spending related to the institution, namely the institution, the faculty, the staff and the students spending in the region. The skill-base approach intends to measure the increase in productivity (due to acquired knowledge and skill from attending the HEI) and the enhanced lifelong revenues from the graduates that remain in the area (Brown and Heaney, 1997; Bluestone, 1993).

Levitt *et al.* (Brown and Heaney, 1997) proposed a model to estimate the economic impact of a HEI, combining the two approaches (figure 1).

^{iv} See, for example, Arik and Nsiah, 2004; FINHEEC, 2004; Ohme, 2004; Appleseed, 2003; Charney and Pavlakovich-Kochi, 2003; Healey and Akerblom, 2003; Gunderson, Eastwood, and Fox, 2003; University of California, 2003; Austrian and Sadowski, 2002; Duhart, 2002; Clinch and Gerlowski, 2002; Lantz, Brander, and Yigezu, 2002; Carr and Roessner, 2002; Macfarland, 2001; NASULGC, 2001; Emmett and Manaloor, 2000; Head, 1997.

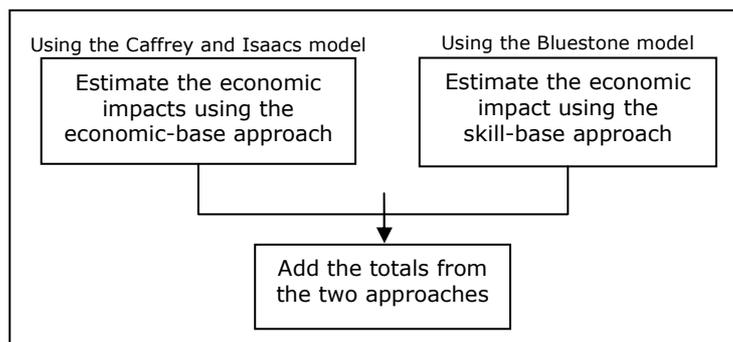


Figure 1 – New approach

Source: Adapted from Brown and Heaney (1997: 233).

Although several economic impact models can be found in the empirical literature, specifically concerning the economic impacts of Higher Education Institutions, the vast majority of the studies follows the guidelines of the model developed by Caffrey e Isaacs and presented in the American Council on Education (and so known as the ACE model) in 1971^v.

The remaining models usually try to introduce a development or try to simplify this one, such as the Short-Cut Ryan model, the EACUBO, or the IMPACT model. But all the mentioned models follow the traditional economic-base approach^{vi}.

Some authors criticize the ACE model because, being a typical economic-base approach, it does not identifies or even consider the non economic impacts that arise from the HEI existence, nor does it considers the lifelong earnings of the graduates and other benefits that the skill-base approach models, such as Bluestone's model do (Buchanan, 1994). Although the Bluestone model, that follows a skill-base approach is being more frequently use, MacFarland (1999) sustains that the ACE is still a valid and useful model. Brown e Heaney (1997) also recommended some caution in the selection of the model and state that the traditional ones give more reliable and conservative values than the new ones.

Another major critic is that the ACE model is a conservative model and underestimates the total impact due to its lack of consideration of other non economic impacts such as technology transfer, specialized workers, cultural and social benefits, or the use of the HEI infrastructures among others^{vii}.

To overcome these critics, presently when the ACE model is used some adjustments are made, namely, some authors who do not use all the sources of spending and exclude the visitors spending. Also, the ACE model acknowledges that there are some non monetary benefits that are difficult to quantify and could bias the estimate, and usually are not considered, therefore, underestimating the real impact of the HEI in study. Nevertheless, they exist and should be identify and mentioned even if they cannot be measured.

^v See, for example, Ohme, 2004; Charney and Pavlakovich-Kochi, 2003; Gunderson, Eastwood, and Fox, 2003; Healey and Akerblom, 2003; Seybert, 2003; Lantz, Brander, and Yigezu, 2002; Austrian and Sadowski, 2002; Macfarland, 2001; Buchanan, 1994.

^{vi} See, for example, Seybert, 2003; Carr and Roessner, 2002; Emmett and Manaloor, 2000; Head, 1997; Ryan and Malgieri, 1992.

^{vii} See, for example, Sanders, 2003; Clinch and Gerlowski, 2002; Sudmant, 2002; Chatterton, 1997; Goddard, 1987.

2.1. The American Council on Education Model

The ACE model tries to identify who is spending, how much, in what, and where, so, basically, it intends to identify and quantify all the monetary flows that occur due to the existence of a HEI. A simple expenditure model can explain the cash flows in question, as shown in the following figure.

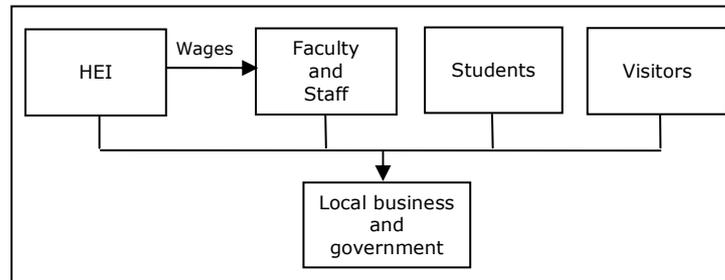


Figure 2 – The monetary flows of the ACE model
Source: Caffrey and Isaacs (1971: 7).

As is represented in figure 2, the ACE model is a simple and linear cash flow model, and the impacts that it intends to estimate are from the four sources represented in the figure: the institution, faculty and staff, students, and visitors. Their relationship to the economic impact can be translated in the following equation:

Direct impact of the HEI = 1+2+3+4,

where (1) is the local spending of the HEI, namely in equipments, material, communications, and so on; (2) concerns the local spending of the faculty and staff; (3) concerns the local spending of the students; and (4) concerns the local spending of the visitors (Caffrey e Isaacs, 1971).

This study was based in the ACE model of Caffrey and Isaacs (1971), through which, the economic impact of the HEI is estimated, by adding all the direct and indirect impacts that arise from the institution, faculty, staff, students and visitors spending.

The HEI economic impact is translated in an impact in local business, local individuals, and local government. The following figure shows a detailed and more complex representation of the ACE model that was used in this study.

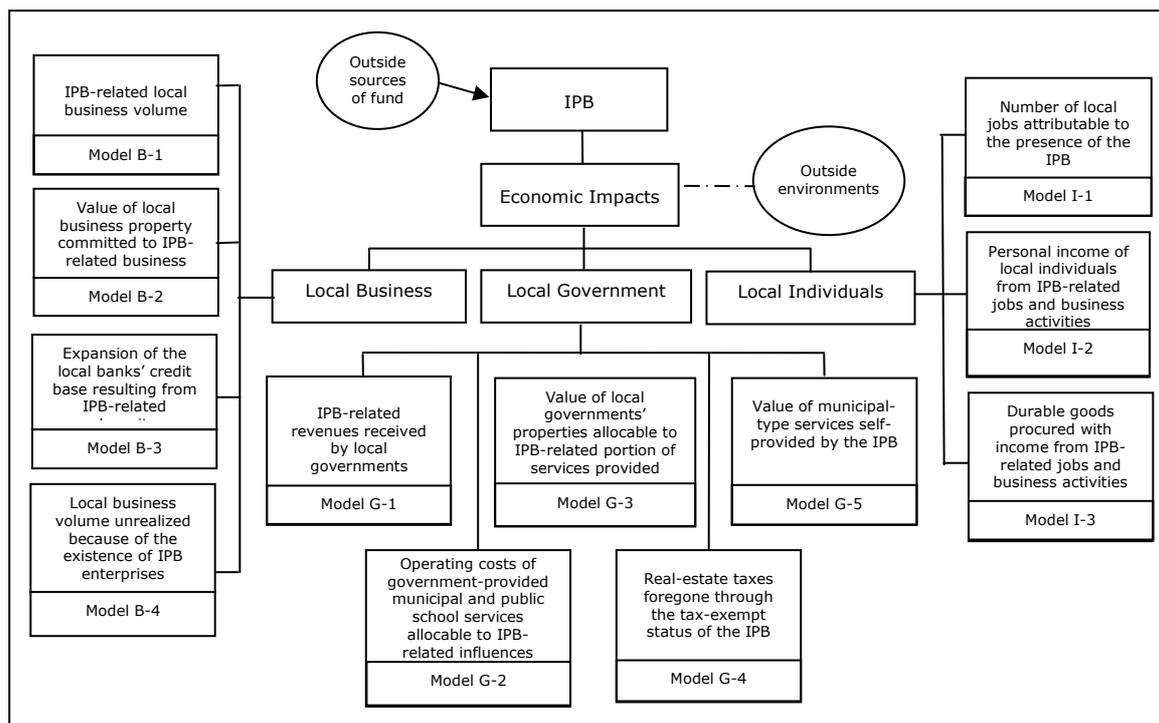


Figure 3 – Economic impact of the IPB on the business, government and individuals of the region
Source: Adapted from Caffrey and Isaacs (1971: 10).

Figure 3 shows with detail how the impact will occur and what are the input data needed for this estimation. The total economic impact of the Polytechnic Institute of Bragança (IPB) is estimated by adding all the direct and indirect impacts that arise from the institution, faculty, staff, students and visitors spending. The adopted model translates this amount into impacts on the individuals, business and government, separated in different aspects, as shown in figure 3.

3. The Case of the Polytechnic Institute of Bragança

As previously mentioned, this paper describes the analysis that is being conducted in the Polytechnic Institute of Bragança (IPB). Since the IPB has five colleges, four located in Bragança and one located in Mirandela, these two cities are the region under analysis.

The study was based in the ACE model of Caffrey and Isaacs (1971). To estimate the spending of the institution, faculty, staff, students and visitors, a survey was conducted in the 1st semester of 2007. All the other data, obtained from the institution, was updated to December, 31st of 2006.

3.1. Collecting the data

The faculty had access to the questionnaire that was made available in the intranet, where they could access it using their username and password, and so was guaranteed that they would only answer once. From the 396 faculty members, there were 166 responses.

For the staff, the questionnaire was sent by internal mail along with a return envelope and a letter from the president of the IPB to motivate them to cooperate. There are 233 staff members in the IPB, and there were 105 responses.

From both, the faculty and staff it was intended to obtain responses for the total population but it was not achieved, regardless of all the efforts made.

To obtain a higher and more reliable level of responses, the students answered the questionnaire in the classroom. To guarantee the randomness of the sample, the visited classrooms were selected in a random way from the on-line schedules. A total of 1343 responses from the population of 5119 students was obtained.

3.2. The faculty and the staff

The faculty's sample shows a male preponderance (53.3%), an average age of 36.6 years and a work experience in the IPB of 9.9 years. The vast majority (80.6%) have, at least, a master degree, attaining 26.7% a doctoral degree.

The faculty's families have between 1 and 4 people (96.7%) and have 1 or 2 children (95.5%). The families have an average monthly revenue of 2,241.1 euros and spend every month in the region 1,717.4 euros.

The major expenses are with house and food, in this order. 48.8% changed residences because they work in the IPB, and their visitors spend 628.2 euros annually, on average. For the faculty elements that have a bank loan, in 47.0% of the cases, that loan was used to buy a house. Each faculty member spends, in average, a total amount of 793.1 euros per month.

The staff's sample is predominantly female (54.9%) and has an average age of 42.9 years, working for the IPB for 11.8 years, on average. The majority (67.9%) graduated from high school and 47.0% have, at least, a bachelor degree.

The families of the staff elements have between 2 and 4 people (80.8%) and have 1 or 2 children (88.1%). They receive an average monthly payment of 1,313.9 euros and spend in the region 1,334.9 euros every month.

The major expenses are with food and house, in this order. Only 21.2% changed residences because they work in the IPB, and their visitors spend 449.3 euros per year, on average. The staff elements that have a bank loan used it, in 68.8% of the cases, to buy a house. The expenses of the staff *per capita* are, in average, 526.8 euros per month.

The following table shows the average expenses that the faculty and staff's families have, monthly, by categories.

Table 1 – Average monthly expenses from the families of the IPB faculty and staff members (in euros)

| | House | Food | Other expenses | Transport | Personal items | Children's education |
|---------|-------|-------|----------------|-----------|----------------|----------------------|
| Faculty | 423.9 | 409.9 | 281.2 | 103.0 | 179.7 | 154.5 |
| Staff | 378.0 | 427.0 | 208.8 | 140.6 | 120.9 | 180.0 |

| | Current expenses | School material | Health | Pleasure | Informatics' supplies |
|---------|------------------|-----------------|--------|----------|-----------------------|
| Faculty | 140.6 | 104.4 | 98.3 | 76.8 | 68.1 |
| Staff | 109.7 | 67.4 | 77.4 | 43.4 | 48.5 |

Source: Faculty and staff questionnaire.

There are, in average, more staff elements with children than faculty elements, and they are older. The main difference relies in the average revenues, while 59.3% of the staff families only receive 1612 euros, this figure is achieved by only 13.8% of the faculty families, and none of the faculty families receives fewer than 806 euros. This difference is enhanced when one considers the place where they make their meals, almost twice of the staff elements has all the meals at home (40.0%) while only 20.7% of the faculty elements have all their meals at home.

The faculty families, in the majority of the analysed spending categories, spend more than the staff families, except in food, transport and with the children's education. The faculty families save almost three times (348.1 euros) what a staff family saves every month.

3.3. The students

The average student is female (63.6%) with 23.5 years (this average is slightly lower when considering just the full time students - 21.8 years, and much higher when considering the working students - 34.5 years). The vast majority of the students are full time students (86.5%), while the working students only account for 13.5%.

The students are in average in the IPB for 2.4 years, but the data from the central services of IPB point out an average permanence of 3.9 years. The retaining rate of the students through out the degree is 10.4% in the first year, 38.5% in the second and 54.4% in the third. This rate varies according to the area of the degree, specifically, the humanities area is where they fail less and those that study science and engineering are the ones that fail more. This retention rate influences the efficiency of the institution, and the IPB efficiency rate equals 57.9%.

From the sample, it is visible that 73.5% of the students change their residence to attend the IPB and these students come mostly from within 200 km (almost 63.0%).

The families of the students have a working mother (54.3%) or a working father (67.9%), but only 41.6% have both their parents working. The unemployment rate is higher for females and almost 37.4% of the mothers are housewives.

The professional categories more represented are the non qualified ones, jobs that require low qualifications (74.9% of the fathers and 65.6% of the mothers), and the parents academic qualifications are also low - 35.0% have only the basic level 1 (primary school) and 23.2% have the basic level 2.

About 32.0% of the students belong to families that only receive 806 euros for month, i.e. two minimum national wages, and 88.2% to families that receive a maximum of 2418 euros a month (before taxes).

The students are mainly supported by their families (77.1% of the students) with a monthly average allowance of 370.8 euros, but 33.5% are also helped by a scholarship, that gives them an extra monthly amount of 102.1 euros, in average^{viii}. From these last ones, 75.5% are female students.

The major expenses the students have are with house and food. They spend every month an average amount of 449.8 euros. The following table describes the monthly expenses by category.

Table 2 – Average monthly expenses from the students of the IPB (in euros)

| | | | | |
|----------------|-----------------|-----------------------|----------------|-------------------|
| House | Food | Transport | Other expenses | Tuition and other |
| 124.4 | 117.6 | 98.3 | 80.1 | 63.2 |
| Personal items | School material | Informatics' supplies | Health | Pleasure |
| 56.8 | 48.2 | 42.0 | 26.5 | 30.2 |

Source: Student's questionnaire.

3.4. The direct economic impact from the faculty, staff and students

The results obtained from the survey conducted in the IPB, with the faculty, staff and students, allowed to obtain a first estimate of the direct economic impact of the IPB in the amount of 24,201,867.5 euros. In fact, in the year 2007, the faculty, the staff and the students spent 4,256,304.6 euros, 822,458.3 euros, and 19,123,104.6 euros, respectively, in the regions under analysis.

The total amount becomes more significant when compared with the annual budget for the IPB, which reaches 22 million euros (22,293,335.0 euros). Roughly, one can state that the cash flows received from the state by the IPB are enhanced by 8.56%, in terms of cash flows for the region.

There should be noted that, in the amount estimated, is still not included the import substitution effect of the local students. This amount was not estimated yet due to delays from the official sources to provide the accurate figures. Although, the ACE model does not contemplate this group of spending, Blackwell, Cobb and Weinberg (2002) emphasised that this is an effect that does occur and, therefore, can and should be included in the estimate. These authors also claim that the technology transfer effects, when the institution is mainly for undergraduates, like the IPB, are not sufficiently important to change the results

^{viii} Some students with a scholarship have a free room, or a low rent room, in the social services' houses, and this is not accounted in the monthly expenses.

and are very difficult to estimate, and hence can be neglected. Furthermore, the economy of the regions under analysis is mainly of the primary and tertiary sectors, and the manufacturing industry has a very low significance.

Another note should be added regarding the institution spending. These amounts were not added yet to the total economic impact because they were not available on time. However, it is certain that they will increase the total amount spent in the regions, which in any case has been estimated in a conservative perspective.

4. Conclusion

The findings obtained in this paper clearly suggest that HEIs are major mechanisms of regional development. In fact, although not all of the amounts needed for the ACE model are already obtained, it was possible to obtain a first estimate of the direct economic impact of the IPB in the regions of Mirandela and Bragança of over 24 million euros. This amount is 8.6% higher than the state's budget available for the year 2007.

Some questions have arisen from the study, mainly concerning the difficulty to obtain data from official sources, either because it does not exist or because it is not available.

The next phase is to obtain the values to complete this part of the work, using the ACE model and readjust the comparison between the total amounts spent in the region by the individuals related to the IPB and the total amount the government gives to the IPB to operate every year. It is likely that in the end of that phase a much higher amount will be obtained and that it will be possible to present future and accurate estimates (due to the constant option for the conservative figures) of the impact of the IPB in the studied regions.

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Knowledge boundaries and boundary-crossing in the design of work-responsive university curricula

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Abstract

This article presents a conceptual framework, drawn from different strands of socio-cultural learning theory, for understanding the processes involved in the design of a work-responsive curriculum. The framework is supported by empirical evidence of boundary crossing activity in curriculum design. Knowledge at work and knowledge in the university are recognised as being, broadly, differently structured, differently acquired and used for different purposes (Eraut, 2004; Bernstein, 2000). The idea of difference creates boundaries which delineate the two knowledge domains, broadly, as distinct communities of practice. A key question which is addressed in this paper is to recognise that integration as such cannot be the goal: the differences remain but have to be turned into productive collaboration and joint development of a curriculum. Productivity relates to the activity theorists concept of zones of potential development between two interacting activity systems (Engestrom, 2001). Productivity is then a measure of the extent to which new hybrid knowledge emerges in the interactive zone with positive outcomes for both systems. Ideally, the elements of the integrated curriculum look both ways, satisfying both work and academic requirements.

Keywords: Activity theory – Knowledge difference – Boundary - Productivity

1. Introduction

The paper addresses the general problem of university/work knowledge transfer. Authors such as Eraut (2004), Bernstein (2000) and Layton et al (1993) have pointed out the fundamental differences between academic and work knowledge in terms of context of learning and structure of knowledge respectively, and hence the problem of transfer from the academic to the work world.

Bernstein (2000) theorises that knowledge in work and society is, by and large, differently structured from more academic discourse. The more vertical knowledge structure of academic knowledge, with its abstract language and guiding principles, suggests that it will not easily integrate with the more context-bound nature of work knowledge (horizontally structured discourse).

Pedagogic discourse is constructed by pedagogic recontextualising principles (Bernstein, 2000: 33) which selectively appropriate, relocate, refocus and reconstitute the broader field of disciplinary knowledge. In performing this transformation the original discourse may become so pedagogicised that it bears little resemblance to its origins. The same argument for recontextualisation as substantive change rather than integration can be applied to knowledge as it

moves from work into the academic curriculum, but where selection is made both on vocational and pedagogic grounds (Barnett, 2005).

The substantive changes involved in recontextualising knowledge from academic to work contexts are outlined by Layton et al (1993). Using the example of moving between school science knowledge and technology in order to solve a technological problem, he suggests that, firstly, a student needs to understand the complex reality of the problem and, secondly, to pick and choose from available scientific knowledge sources:

The problems which people construct from their experiences do not easily map on to existing scientific and pedagogical organisations of knowledge. What is needed in solving a technological problem may have to be drawn from diverse areas of academic science at different levels of abstraction then synthesised into an effective instrumentality for the task at hand. ... Solving technological problems means building back into the situation all the complexities of real life, reversing the process of reductionism by recontextualising knowledge.

(Layton et al, 1993: 58-59)

Thus far the arguments presented are that transfer tends to involve a mostly one-way recontextualisation such that one knowledge type is effectively absorbed by the other. The resultant knowledge tends to look one way. How then can the question of the construction of knowledge which looks both ways (Barnett, 2005) be addressed?

Activity theorists, for example Tuomi-Grohn and Engestrom (2003) and Beach (2003) have attempted to overcome the difficulty of knowledge difference and one way transfer by conceptualising transfer as a boundary-crossing process between schooled and different work activity systems. New knowledge then develops in the interstices between the two.

The problem of knowledge transfer between work and the academy in this paper is broadly located within the sociocultural perspective of activity theory. The different perspective offered here is, firstly, that of a focus on the nature of knowledge development in the interstices between activity systems through the concept of productive knowledge development. Secondly, the role of difference, drawing predominately from cognitive models of knowledge change, is accentuated as both a barrier and an enabling device in boundary crossing activity. Thirdly, productivity and difference can be used as tools to describe transfer in both directions between the university and the workplace.

2. Productivity

The term productive can be found in literature on knowledge transfer between work and the academy, for example, where productivity denotes the ability of individuals to use what has been learnt in one situation in another, novel one. Productive learning is then the ability to generalise across different situations (Hatano and Greeno, 1999). An alternative though linked version of productivity in learning is raised by Dysthe (1999) from the perspective of e-portfolios of learning in teacher education. Productivity or productive learning here refers to

learning through self-reflection and through reflective interactions with tutors and peers. Students' knowledge is extended from what they already know through these reflections within an extended social learning milieu: 'The portfolios should reflect not only the contributions of each member but also the 'added learning value' of dialogical interaction of different voices' (Dysthe 1999).

My concept of productivity is somewhat different and has been inspired by activity theorists who view knowledge development within a single community as being contextually constrained and thus limited (Engestrom, 2001; Gutierrez et al, 1999), and by Wenger's (1998) work in the field of situated learning which view productivity as the development of 'potentially shared or jointly constructed objects'.

Productivity relies, firstly, on boundary recognition and hence the existence of some degree of difference between different knowledge forms. Boundary recognition involves making difference which may have previously been implicit explicit. It is not, however, necessarily a barrier to further development. When two different communities interact their differences become a resource and there is the possibility that previous contextual constraints fall away or are muted as a new, intermediate '3rd' space develops (Gutierrez, 1999). On its own the third space is not necessarily going to result in interactions which are productive. There needs to be actions by actors.

Productivity is now measured as the extent to which new, collaborative knowledge formations arise within this intermediate space through the collaborative actions of the actors involved. Being productive is thus more than just communication across differences. It involves the production of new knowledge with elements of both higher education and work which has value in both of these contexts. Productivity is the measure of success of the hybrid forum in which communities interact.

The productive zone is shown diagrammatically in Figure 1. Figure 1 derives from Engestrom's (1999) 'second generation' activity theory in which the focus is on interactions between activity systems rather than within a single system, as shown diagrammatically in figure 1.

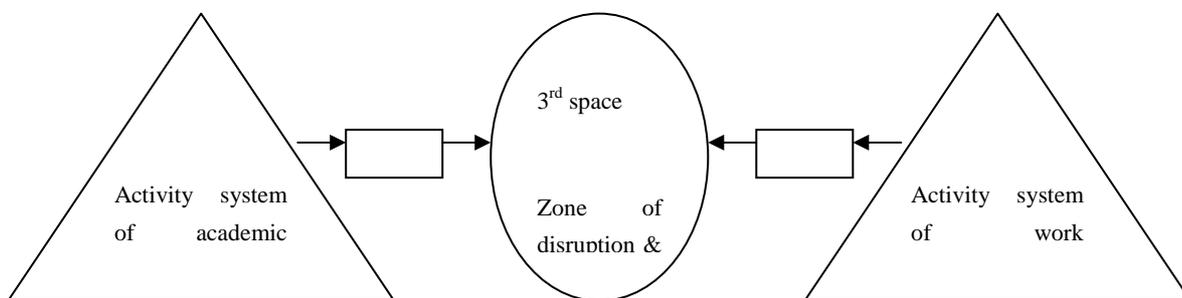


Figure 1: Interactions between activity systems

3. Boundary devices in interactions

The idea of boundary derives from difference between knowledge in different communities of practice which under normal circumstances prevents the easy passage of knowledge between the communities. Boundary devices, as a general term, relate to the range of transformational structures and processes that influence such passage.

Boundary devices are drawn from a synthesis of different theoretical perspectives. All, however, have empirical referents and cognate epistemologies which form the basis for my discussing them as a whole. Some of the devices serve to disrupt inter-community coherence whereas others serve to enable the passage and transformation of knowledge between the communities. Others still exploit and explore this emerging hybridity.

Forums in which actors from heterogeneous backgrounds meet are described by actor-network theorist as 'hybrid forums' (Rip et al 2004; Callon, 1998). Meetings where representatives from the workplace meet academics to discuss the curriculum can thus be described as hybrid forums. One type of hybrid forum is that of 'hot' interactive spaces where representatives and knowledge move in and out with no clear direction; they are at first tangled and confused (Callon, 1998). While Rip et al (2004) point out a certain amount of heterogeneity is necessary for hybrid forums to be productive, this is counterbalanced by the difficulty, in too heterogeneous or hot spaces, to discuss anything at all. There is thus a trade-off between requisite variety and productive convergence.

When these hybrid forums are optimally balanced with enough variety and some level of agreement, then we could expect productive interactions. Whether or not this actually happens would then depend upon how boundary devices are mobilised.

The presentation of knowledge from either work or academic communities as different, essential and, at least initially, immovable (reification) can be a boundary device.

Reification can be dealt with by actors in different ways. Firstly it can be used to cement boundary and prevent further boundary-crossing. Or, either community may attempt, through powerfully representing their reification as essential for the good of the other, to recruit or to enrol the other (Callon et al, 1986).

Alternatively, actors may act on reified knowledge through stripping it of its social relations so that it is more easily inserted, in reduced form, into the other community. Once inserted into the other community it may now be recontextualised within that communities' social relations. The extent to which the recontextualisation is predominantly one-way in favour of the receiver community, or more two-way to the mutual benefit of both communities, can be expressed as low or high productivity respectively.

Various additional devices are also mobilised by actors in attempts to cross knowledge boundaries, which may be co-located and additional to contextualising processes or occur separately from them. Shared knowledge or practices or even partial dual work/academic community membership may

provide for overlapping, connecting structures which enable knowledge movement and transformation (Star and Griesemer, 1986). 'Run-through' is a term derived from interdisciplinary studies. Run-throughs are types of knowledge that exist at the same time in different academic disciplines and thus strengthen their connectivity and act as conduits for communication (Klein, 1996). In interdisciplinary studies, for example, a subject such as mathematics occurs in a number of different disciplines and hence may act as a run-through.

Brokers are those who are within overlapping structures and thus serve to further already existing connections (Wenger, 1998). Brokers may also be less formally instantiated in interactions as actors who are able to creatively 'imagine' the knowledge and practices of the other, which may also serve to further connectivity. Brokers (and others) can furthermore use standardised objects as a connecting object between two knowledge forms. Such objects are recognised and understood by both communities as having value within the hybrid forum, though they may have different meanings when restricted to one or other community (Star and Griesemer, 1989). Standardised objects may go beyond the re-ordering of knowledge from one community into another but act as articulating or joining devices for knowledge from both communities. More and more knowledge of increasing complexity and detail can become deposited in these articulating devices.

The result of the actions of boundary devices can be hybrid objects consisting of elements of knowledge from both contributing communities to different degrees; the relative contribution of both communities relates to the productivity of the hybrid object. Hybrid objects are not just results but are also potential boundary devices too in that they may enable further developments; hybrid languages which arise out of hybrid forums are an example of such a developmental boundary device.

Such hybrid languages have been described by Galison (1997) in interactions between engineers and different sorts of physicists around a micro-engineering project, by Duncker (2001) in interdisciplinary research and by Gutierrez et al (1999) between working class children and their teachers in a biology class. They refer to these concepts and language as pidgins or hybrid languages as they serve to explore, momentarily, a new space which lies somewhere between the two communities.

4. Difference, disruptions and productivity: towards a conceptual framework

The concept of productivity implies that differences are both a barrier and an opportunity, the latter especially if there is generative disruption. In actor-network theory mention was made of trade-offs between variety and productive convergence in hybrid forums. Very interesting work in this respect has been done in innovation studies (Nooteboom, 2004, 1999), and these studies will be used to expand on the concept of trade-off in order to help answer the question about productive bridging between higher education and work knowledge.

Nooteboom's innovation studies draw on cognitive theories of learning in the form of scripts, absorptive capacity and cognitive change (Nooteboom, 1999).

Though these theories are primarily focused on individual learning and cognition, Nooteboom, in his conceptualisation of innovation, overlays individual cognition with a more social orientation.

One of the conundrums of innovation is how to introduce a new way of doing things or a new product whose success is unknown, when there is already a successful method that still provides income for the company. Being able to do this is important for companies who wish to remain competitive. There is a problem of attempting to communicate the unfamiliar and at the same time an opportunity to produce something radically new which may occupy a new or yet to be discovered market niche. At the same time, it is risky to produce something radically new without knowing whether it will be taken up in the market.

In Nooteboom's (2004, 1999) analysis of this issue he draws on cognitive theory to understand how new ideas may be understood by those steeped in older, previous ideas. Simply put, in order for A to understand B, A needs to have sufficient familiarity with what it is B is attempting to put across. Familiarity, in cognitive terms, would involve some sort of prior learning from A which enables A to accommodate B's ideas into cognitive structures which are already there, either partially or completely.

Where the new is very like the old then the cognitive difference is small and the new is easily accommodated into the old; so there is little innovation, even while there is a high degree of communicability. Where the cognitive difference is very large then communicability is compromised and again there is little innovation.

For something to be innovative it has to be sufficiently different from the old; if it is the same as or very similar to the old then it is not innovative. So the higher the degree of cognitive difference between the new and the old, the greater the potential for innovation. But this drive for innovation and novelty is counterbalanced by increasing novelty becoming increasingly incommunicable.

Thus there is a trade-off between increasing cognitive distance between the old methods/products and the new innovation, and hence the relative novelty of the innovation, and the concomitant reduction in the possibility of it being successfully communicated and hence accepted.

The relationship can be visualised graphically as shown in Figure 2. The novelty of the innovation is represented by a sloping line increasing with cognitive distance between the new and the old (the x-axis). Novelty needs to be communicated to be realised, but communicability decreases with increasing novelty. So there is a trade-off between novelty and communicability with the optimal position (depending on the situation) somewhere in the middle of the cognitive distance axis.

The trade-off can be simply understood by reading off points on the x-axis for cognitive distance against high or low values for communicability and novelty. Point A represents a new product which is much like its predecessor. An imaginary vertical line crosses the novelty transect at low values and the communicability transect at very high values. This we would code as 'A = low novelty but high communicability'. It is productive in the sense of absorption of

the new within the old, but not in terms of my vision of productivity because there is not much that is new which is created. Point C on the x-axis is at a position of large cognitive distance. Here, the imaginary vertical line crosses the communicability transect at very low values and the novelty transect at very high values. The coding of 'C = high novelty but with low communicability' again indicates an unproductive outcome as the innovation is too novel to be taken up.

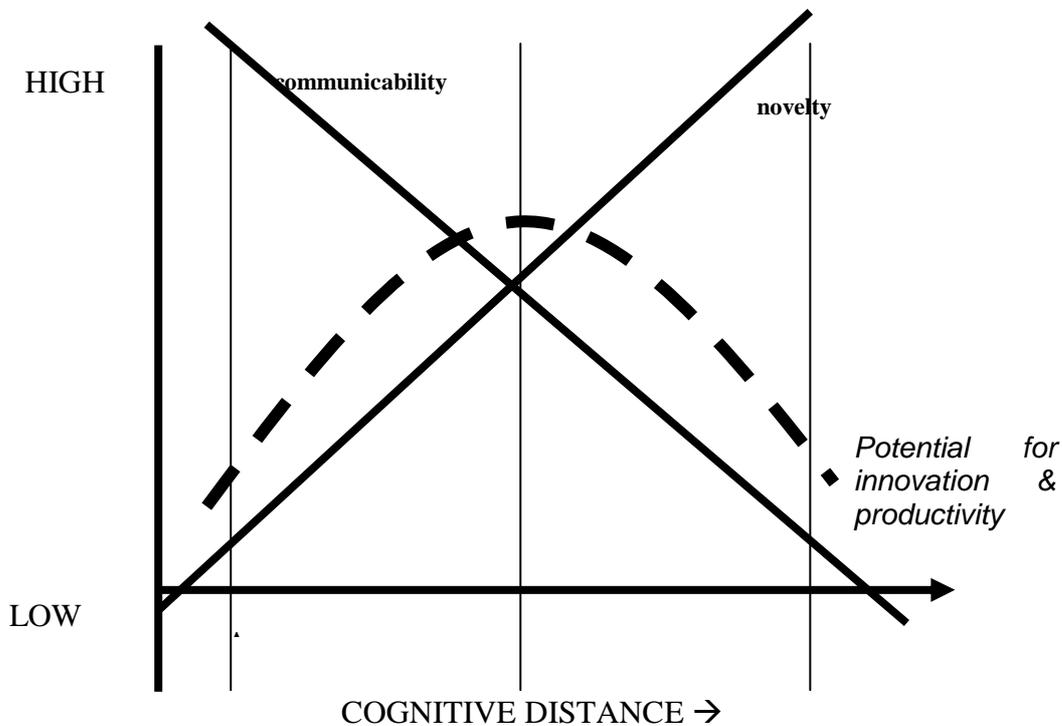


Figure 2: The potential of increasingly innovative products (after Nootboom, 1999)

Point B at the midpoint of cognitive distance between the new and the old methods/products we would code as 'B = moderate novelty and also moderate communicability'. Here one could predict that there is sufficient novelty for something to be called new and sufficient understandability for it to be successfully communicated and accepted. This position, then, is likely to be productive.

Productivity, in the sense I use it following Nootboom, i.e the realisation of some novel product, thus relates to cognitive distance as an inverted U-shape curve; the better starting point for productive innovation is somewhere in the middle.

In economic theory the Nootboom graph can be used as a partial explanation for the success/lack of success of innovation. This is because it operationalizes the idea that, in order for innovation to occur, existing linkages which firms have with others are broken and competencies possessed by the workforce become obsolete. This process of de-alignment is then followed by one of re-alignment as new linkages and competencies are constructed (Rip et al, 2004). Such an explanation can be turned into a predictor for success and productivity if

circumstances in the new cases are sufficiently similar to those previously analysed as successful or not successful.

In work/academic interactions the situation is somewhat different in that we are dealing with two different worlds with different concepts of knowledge, ways of doing things and overall purpose. Difference, rather than cognitive distance, is likely to be a deciding factor but the same picture as visualised in Figure 2 might hold.

4.1. A hypothesis for the implications of work/academic differences

The hypothesis now proposed, like the original Nooteboom prediction, is that degrees of difference between work and academic knowledge are driving forces for the production of new knowledge in the third space somewhere between the two original knowledges. It is the proximity of these knowledges (sometimes stressed in hybrid forums) which encourages the development of disturbances leading to the development of the new. But disturbances will only occur under certain conditions and may sometimes be too large for any further productive activity to ensue. Where work and academic knowledge are very alike there is low difference and a reduced possibility of disturbance. The knowledge is easily understood by the other but this in itself serves little productive purpose. Without disturbance there is limited opportunity for third space development and ensuing productive knowledge creation; this is visualised as the zone of proximity and low productivity in Figure 3. This is a similar observation to Nooteboom's prediction that innovation is unlikely if the new idea is too similar to the old, even though it is easily communicable. Conversely, where the knowledge presented by either work or the academy is too markedly different from the other, then the ability of the other to understand, absorb and do anything further with this new knowledge is again limited. This is hence visualised as the zone of rejection in Figure 3. Somewhere between very low and very high difference there is an optimal degree of difference where the other is sufficiently different to herald something new, but can also be understood and co-operatively developed. This area constitutes the zone of disruption and potential productivity and matches to Nooteboom's central zone in Figure 2.

Nooteboom, however, is not too clear on the processes following on from an optimal novelty/communicability position except to say that 'the new', or sections of it, may replace sections of previous scripts (ways of doing, products etc) so long as they are not too disruptive.

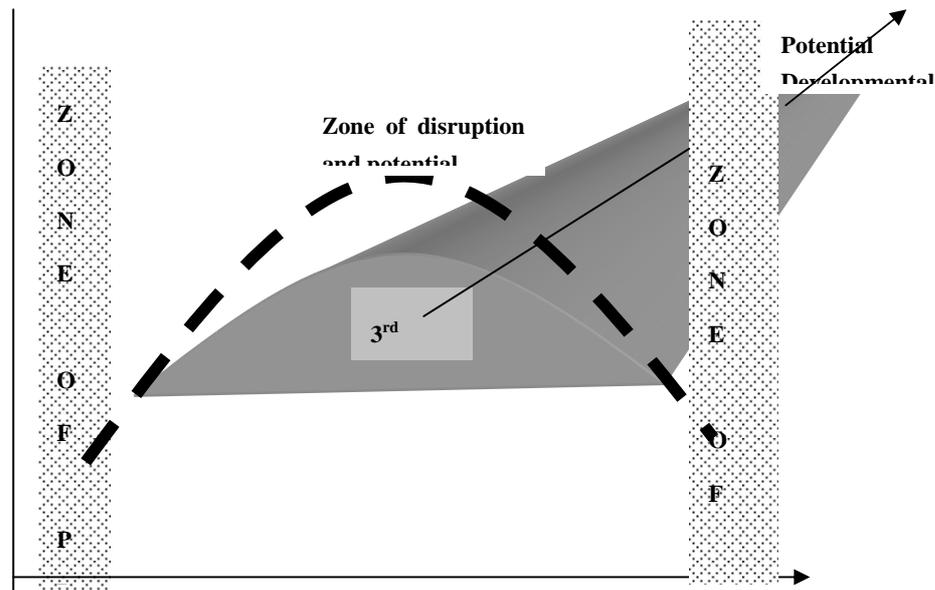


Figure 3: Productive zones and developmental hybrids

In Figure 3 the zone of potential productivity at optimal levels of difference is situated within the constraints of either too low or too high zones of difference. This zone opens up a third space which I have visualised as a funnel leading back into the page to indicate the potential for further development of hybrid objects, in particular hybrid objects which provide a structured and developmental integration of work and academic knowledge.

Conditions of optimal difference and disturbance will only set the scene. Actor strategies need to be brought into play within the zone of potential productivity. These actor strategies (boundary-crossing processes) may result in hybrid and new forms of knowledge which may also be developmental as the new hybrid is explored and expanded on over time.

Figure 3 can be used as a prediction and possible explanation for observed events in work/academic interactions.

The general hypothesis that difference can be used by actors as a resource and further developed productively into hybrid objects is not simply conjecture. It can be illustrated in interactions between work and academic representatives in discussions around curriculum development.

5. Empirical analysis of productive interactions

The excerpt below is from an academic chemistry curriculum meeting in which workplace representatives are brought in to critique and make suggestions towards the current curriculum. A recurrent theme of re-curriculation and

integration is developed. The full transcript has been excerpted to highlight the development of this recurrent theme.

The discourse is represented in a three-column analytical format derived from Geisler (2006) which shows actual text, interpretation and coding, in this case, derived from boundary crossing theory. Key, hybrid developmental ideas in the text are in boldface for easier interpretation. The abbreviations Wk1 and Ac 1 refer to different work and academic representatives in the meeting.

This meeting is productive for three main reasons. Firstly, differences are identified between work needs and the current curriculum (the need for geology at work) and work and academic representatives raise different ways to deal with this. The initial differences are neither too large to prevent further work nor too small to hinder innovative developments. The in initial work need then develops into a more all-encompassing initiative, re-curriculation, to meet a number of other work needs as well.

Secondly, the term re-curriculation is a classic boundary device in that it can have different meanings for work and the academic representatives (Star and Griesemer, 1989). For work it provides an avenue for incorporating a whole raft of changing work needs; for the academics it provides a better platform for curriculum review and for integrating previously disparate curriculum units. But re-curriculation also does more than this; it articulates and puts together the different needs into a single unit of meaning. It is thus also a hybrid object.

Thirdly, the broad concept of re-curriculation, through the integration of components both inside and outside the traditional curriculum, becomes part of the language of work/academic integration. Other terminology, or sub-concepts, associated with work/academic integration emerge in the transcript and may become mutually acceptable ways of talking about both work and academic needs. Because these terms arise in the process of interaction between work and academics they can be described as hybrid terms. Some of the terms identifiable in the transcript: thinking holistically and contextually about the curriculum; testing work knowledge in integrated assessment formats; using modules; and focusing on the sort of outputs we want rather than 'nice to know' inputs. I would suggest that these hybrid terms function as the beginnings of a language of articulation, an inter- or hybrid language which are the beginnings of a developmental third space.

Unfortunately, as is often the case with naturalistic research, the participants failed to follow up this promising start, not because they were unwilling to do so but because other issues gained ascendancy (the chemistry department at that time was being merged with a sister department at another university).

5.1. Chemistry meeting transcript

| Text | Interpretations | Coding |
|---|---|-------------------------|
| <p>Wk1 We would like geology/mineralogy added into the course. The guys do not know the difference between minerals and rocks, that is a major concern</p> <p>Ac 2: I think the introduction of geochemistry is a good idea. I think it is very important. Lots of industries require more information like</p> | <p>work raises a <i>difference</i> between current work needs and the training students get</p> | <p>work reification</p> |

| Text | Interpretations | Coding |
|--|--|--|
| <p>mining, pharmaceutical, microbiology and so on. There are lots of areas where more information is needed. Should this go into the diploma or is there too much already?</p> <p>Wk4: You could get someone from industry to talk about minerals ...</p> <p>Wk 1: No, it needs to be more formal ...</p> <p>Ac3: It needs to be more formal and then we must test it; then it sticks.</p> <p>Ac2: ... but the curriculum is very full ...</p> <p>Wk 4: Why don't we have modules on geochemistry, pharmacology, forensics etc?</p> <p>[brief discussion on what to include and how to do it].</p> <p>Ac4: What tends to happen is that people add in more and more onto the curriculum we keep on adding on modules and we should rather think of integrating this new stuff into the curriculum otherwise we just overload the curriculum.</p> <p>Ac 3: The last time we recirculated chemistry was 15 years ago. We need to think about recirculating the whole thing, it is a good time to do this with the merger {there is discussion here and a date is set in November to re-plan the curriculum and various work people agree to join in}.</p> <p>[15 minutes academic presentation on quality assurance and experiential learning, followed by separate 10 minute presentation on maths teaching].</p> <p>Ac5: You cannot teach maths or communications out of context, you must be using it in especially practicals all these things must be integrated for teaching to be effective. If we recirculate then we must look at how to integrate maths and communications.</p> <p>Wk3: The whole idea of integrated assessment is important the whole move is integrated assessment and not assessment separately. You should remember this when you recirculate.</p> <p>Wk2: You must also look at the SETA when you recirculate ... how is it going to relate to them? What we do here must relate to them.</p> <p>Ac3: We cannot teach maths and numeracy out of context. Students must be using it in special and practical contexts. If we recirculate then we must look at how to integrate this</p> <p>Wk3: Just from my side we have talked this afternoon about a lot of recirculation and that sort of thing maybe we must look at what is in that practical that is being done ... we must focus not so much on inputs and nice to know things but on outputs</p> | <p>Academics understand this difference and accept and extend it.</p> <p>work support for the idea; suggests a short informal input</p> <p>Modules are a sort of inbetween which could satisfy needs of work and academics – modules speak to both of them.</p> <p>Idea of integration rather than addition is raised.</p> <p>New inbetween idea of how to meet needs of work (geology) and large curriculum (academics) arises in meeting</p> <p>Recirculation becomes a developmental term which enables the academics to bring in communication concerns raised by work and also to better teach numeracy.</p> <p>Reiteration and accentuation about integration</p> | <p>Enrolment of academics. Ac 2 acts as a broker</p> <p>Cementation</p> <p>Academic enrolment</p> <p>Standardised boundary devices</p> <p>Academic reification</p> <p>Recirculation as a standardised boundary device and hybrid object</p> <p>Process of cementation of the hybrid device recirculation .</p> <p>Hybrid terminology develops.</p> <p>work is progressively enrolled to ideas of integration + recirculation</p> |

6. Discussion and Conclusions: Theorising productive interactions

The starting point for productive interactions is the raising of difference between two interacting communities within a hybrid forum. Difference made visible as reification from one community set up disruptions in the knowledge of the other within a third. Reifications are thus a boundary device. Further boundary-crossing processes within the third space which involve actors mobilising other devices, such as brokering, standardisation, reduction, overlaps and enrolment, may ensue which enhance co-operative work and hence the productivity of the interactions. A measure of the productivity of the interactions is their ability to generate hybrid objects which are a development of knowledge from both communities; these may be of the more restricted or of the more expansive form, such as inter-language.

However, it must be pointed out that the successful chemistry example referred to occurred within an organised meeting whose purpose was specifically to integrate work needs with academic knowledge. In a sense this was a protected space or even itself a boundary practice (Wenger, 1998) dedicated to integration. Other, less well protected spaces may not show such productive results.

The above conceptual framework can be used to analyse work/academic interactions and to explain events and predict the potential for productivity. The framework is represented as a somewhat static diagnostic tool as events occurring within the low productivity zones would be likely to remain there. But a situation in which knowledge is too proximal or too distant to result in productivity may change over time, and this would partly be because of the actions of actors involved. For example, the concept of the electric car has been around for at least 60 years but has never caught the public or corporate imagination in any major way (Hoogma et al, 2002). It was just too different to the generally accepted combustion engine transport. The technology has, however, carried on developing in limited environments in, for example, golf estate vehicles. Over time as conditions have changed the electric concept has become more acceptable and technological potential exist to in part replace combustion engine dominance.

The theoretical framework has been used within the context of work/academic interactions concerning the curriculum. There is no reason why the framework could not be taken into new but related contexts in order to analyse knowledge transfer, change and development in university/work research partnerships. It could furthermore be extended to analyse new knowledge developments in interprofessional teamwork. work has already been done in this regard on the different representational infrastructures of architects, engineers and conservationists on building sites (Hall et al, 2002) which could be built on using the concepts of degree of difference, boundary devices and productivity.

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An Investigation of Factors that Positively or Negatively Influence Collaborative Relationships

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Abstract

A qualitative study explored 25 special and 15 general education teachers' perceptions regarding their collaborative relationship as part of Consultant Special Education Teacher (CSET) programs in which they were involved. The study took place in various urban and suburban elementary school buildings (K-6) within Western New York State, USA. Forty teachers certified in either general education or special education and working with students completed seven open-ended statements about themselves and their relationship with a partner in an inclusive special education program. The teachers' responses were analyzed for emerging themes or patterns, resulting in "Seven Thematic Response Categories" that were perceived as positive or negative factors influencing the collaborative relationship. The seven Thematic Response Categories included: Philosophy, Power, Administrative, Professionalism, Interpersonal Skills, Communication and Knowledge/Skills/Training. The study includes analysis and discussion of the teachers' perceptions regarding each Thematic Response Category, as well as school-wide suggestions that affect collaborate partnerships.

Keywords: Collaboration – Consultation – Inclusion - Effects

1. Introduction

The public education system within the United States has undergone many distinct changes over the years evolving into a more diverse and positive environment for all students. Physically, socially and instructionally, classrooms today contain heterogeneous student populations composed of typical learners, gifted learners, at-risk learners, English Language Learners, and students with disabilities, all enriching the classroom environment with a variety of skills, abilities and needs. The primary responsibility of the classroom teacher continues to focus on instruction. However, an increased responsibility to work with others has emerged (Vaughn, Bos, & Schumm, 2007) leading to an increasing demand for collaboration among additional educational professionals.

In the 1990's, the concept of placing and teaching students with disabilities into general education classes began to be identified as inclusion (Wood, 2002). Federal legislation in the form of the Individuals with Disabilities Education Act (IDEA) asserted that students with exceptionalities were to receive educational services in the least restrictive environment (LRE), which is often the regular education classroom (van Garderen & Whittaker (2006). Terms such as "inclusion", "consultation" and "collaboration" evolved. More and more school members such as school psychologists, related service providers and special education teachers became and continue to be critical partners with general education teachers by way of collaborating and teaming to provide the best educational experiences all students can have.

Inclusive education generally provides students with disabilities "access to the standard curriculum in the general education classroom (Bryant, Deutsch Smith and Bryant, 2008, p. 32). Definitions of collaboration include: laboring together, conferring, contributing, assisting, uniting, associating and pooling (Dettmer, Thurston, & Dyck, 2005). The overall construct of collaboration in the area of special education revolves around the ability to work together in a supportive and mutually beneficial manner (Friend & Cook, 2000). Collaboration looks at how people work together rather than what people do (Friend & Bursuck, 2006). In a collaborative model, a dyadic or paired relationship exists between general education and special education teachers because collaboration assumes this type of connection. Indeed, it is the paired relationship that is a distinguishing factor between collaborative models and single-teacher classrooms.

Successful collaboration requires the following from each of its participants:

- a. willingness to work in this type of setting;
- b. interpersonal skills in order to work and communicate successfully;
- c. instructional strategies that align with each other's; and,
- d. willingness to give and take of each professional's knowledge and expertise.

Additionally, literature maintains that the benefits of collaboration depend largely on the relationship between the individuals involved in the process (Schein, 1999; Pugach and Johnson, 1995; Spencer, 2005).

Key positive and/or negative factors that defined the quality of the interpersonal dynamics between general and special education teachers became the focus of a study conducted by professors in the College of Education at Niagara University, Niagara Falls, New York State. The investigation analyzed the following:

- a. general and special education teachers' perceptions regarding factors that either complemented or interfered with their success as partners;
- b. each teacher's beliefs as to benefits and problems regarding collaboration; and,
- c. teachers' thoughts on what components were necessary to make collaboration successful in their schools as well as barriers that interfered with the success of the partnership.

2. Methodology

A survey was developed as a qualitative investigation of written responses made by consultant special education teachers (special education teachers working

with students with disabilities in general education classes) and general education teachers who engaged in collaboration as a function of their working practice. Each participant completed a series of seven, open-ended prompt statements regarding the quality of his/her relationship as a member of their collaborative team.

A pattern matching technique was used to relate responses to the open-ended statements by teacher type (consultant special education or general education) (Yin, 2003). The researchers analyzed written responses for key words, recurring themes, congruencies and discrepancies between the statements made by the teachers. Finally, the responses were analyzed to ascertain whether any area of responses was similarly meaningful or differentially meaningful to either group of teachers or to both groups.

Full-time teachers in urban and suburban elementary buildings (kindergarten to grade 6) within Western New York State participated in the study. A total of 40 teachers (15 general education and 25 consultant special education teachers completed demographic information about themselves and wrote responses to open-ended statements that addressed the following:

1. Why each became involved in the collaborative program...
2. Three adjectives that described the type of relationship they felt existed
3. Greatest benefits from working with another person in the same classroom
4. Problems that occurred when working with another person in the same classroom
5. Components most necessary to make the collaborative program successful
6. Comments that each participant wanted to share regarding working within a collaborative model.

Each teacher's response to every statement was examined for patterns based upon key words, common themes and/or common language that were found written in the surveys that were collected. The statements were then sorted into like groupings resulting in an emergence of Seven Themes that included:

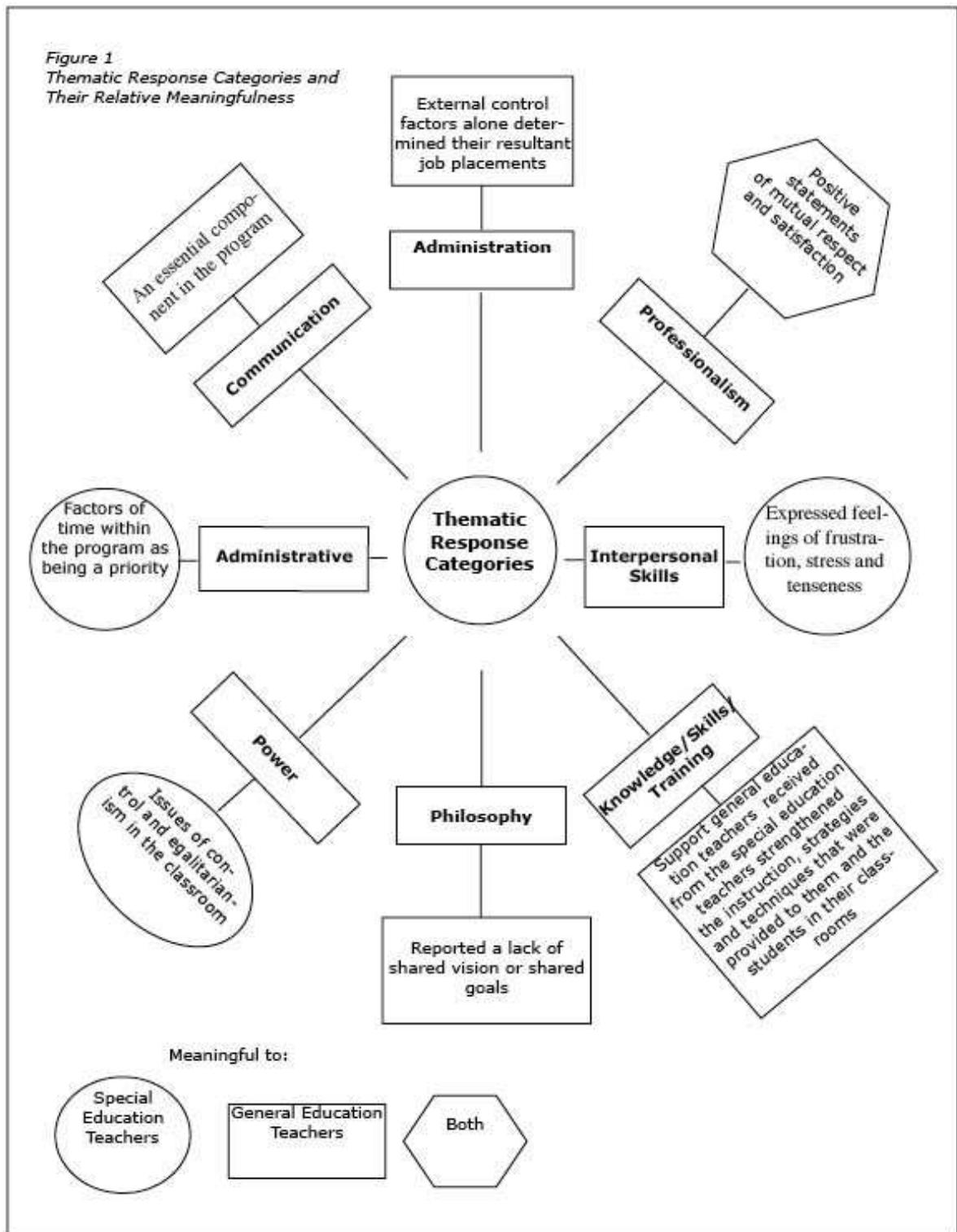
1. Philosophy: beliefs one has about the practice of teaching.
2. Power: the control or influence that a person has over others or over the action of others (teacher v. teacher).
3. Administrative: one, generally the principal, who oversees and organizes the day-to-day goings on of the school.
4. Professionalism: the skills, competencies and dispositions expected of members in the profession.
5. Interpersonal Skills: the ability and competence to relate and cooperate with others in the particular group.
6. Communication: the exchange of information by means of various forms of behavior.
7. Knowledge/Skills/Training: all of the information, principles, methods, etc. that a person possesses about his/her practice.

The investigators also sought to reveal patterns or trends based on the teacher type (consultant special education or general education) responses to the seven open-ended statements. A process was created that included three steps with separate calculations for each step in order to identify the most meaningful theme within each open-ended statement. The steps included: (1) determining a measure for inclusion in the analysis; (2) equalizing the populations due to the

fact that there were more consultant special education teachers in the study (n=25) compared to general education teachers (n=15); and (3) detecting patterns among teacher type (consultant special education or general education).

3. Results

Figure 1 illustrates the theme within each open-ended statement that met criteria for inclusion.



The figure also indicates which theme was meaningful to consultant special education teachers, general education teachers or both teacher types.

While teachers did share thoughts on the barriers that created a lack of success, no Thematic Response Category(ies) emerged as a barrier to successful collaborative programs for either teacher type based upon the inclusion criteria formula.

Some positive and negative aspects regarding collaborative relationships were revealed as a result of the study. On a positive note, once again, barriers to success were insignificant based on the number of teachers who responded. Both general and special education teachers expressed a feeling of mutual respect and satisfaction with the relationship. General education teachers specifically felt that the support they received strengthened the services given to all students in the classroom.

Of concern to both general and special education teachers was the fact that the determination of their job placement was outside their scope of input. Other criticisms of the collaborative relationship included: resistance by one of the partners, control issues in the classroom, frustration with the type of collaborative model engaged in and a lack of shared vision or goals.

4. Discussion

The study attempted to ascertain positive or negative factors that influenced collaborative partnerships. Based upon the results, discussion of the findings are grouped into the following areas:

4.1. Job Assignment and Teacher Preparation

Collaborative teaching is a relatively complex educational concept in the United States. It is still common for teachers to be assigned to positions for which they have not been effectively prepared. Teachers in general and special education may enter inclusive settings without enough theoretical and pedagogical knowledge. Additionally, teachers may not have the knowledge, skills and dispositions to work collaboratively as a team. Collaborative programs have created positions for employment. However, candidates who fill the position may not always be prepared to teach in this type of setting. They are given the position simply to fill it. Therefore, pre-service training and field experiences may not always coincide with the reality of job descriptions. Ultimately this creates a teacher mismatch between the position and the skills needed to effectively work in an inclusive setting, and a classroom situation in which valuable classroom instruction is lost while teachers are involved in on-the-job training.

4.2. Authority

Authority is sometimes delegated and sometimes defined by the roles and responsibilities of the teachers. Roles and responsibilities that are undefined can

become a major problem in collaborative classrooms. According to CEC Today, (2004) while consultant special education teachers have responsibilities, it is not yet clear exactly what type of role the special education teacher should play in an inclusive classroom. Is the special education teacher a facilitator or direct instructor? Is he/she merely an aide to the general education teacher or does he/she play an integral part in the curriculum as well?

Another cause for concern regarding authority in a collaborative environment is the fact that general education teachers tend to plan instruction for the entire class over longer periods of time based upon curriculum guidelines. Special education teachers, on the other hand, often plan lessons designed to benefit individuals and meet students' Individualized Educational Program (IEP) goals and needs as they arise. The methods that two teachers utilize can cause conflict due to the fact that no one wants to undermine the other teacher's authority nor does either teacher want to end up slowing down the entire class in an era of educational accountability and high stakes testing in the United States today.

4.3. Time, Scheduling and Communication

Every teacher, regardless of whether he/she is a special or general education teacher, has issues with time and scheduling. It might be easy to assume that when two teachers are working together, the issue of time would no longer be a factor. Such is not the case. As was stated previously, general education teachers tend to plan for the entire class over longer periods of time while special education teachers plan more for the individual based on goals set out in his/her Individualized Educational Program (IEP). The differing planning cycles may tend to create inconsistency in the classroom and more time passes before the general and special education teacher effectively disperse their workloads to the satisfaction of both.

Individualized Educational Programs (IEPs) are usually discussed and the goals shared by both general and special education teachers. However, the special education teacher is typically the person responsible to create the goals, which takes time, and the special education teacher is also the person responsible for goal implementation in the classroom. More time is needed for meetings between education co-workers, administrators and parents. All of these variables add time to the workload. Inclusive classrooms and collaborative practices often create a need for more communication between general and special education teachers to make sure all students are benefiting.

4.4. Shared Vision and Goals

In order for students to perform well in a collaborative environment, agreement between the special education and general education teacher, based upon a creation of mutual goals and objectives, teaching strategies, materials and assessments must exist (Salend, 1988). Every teacher has her/his own unique philosophy, pedagogy and teaching style. Establishing agreement is difficult and many collaborative programs can become fragmented as exemplified by utilizing different curriculum, teaching styles and strategies. The dichotomy that results

has the potential to confuse students. Teachers who are willing to work together to understand each other's goals and objectives, come to establish mutual ones and then achieve them are a necessity for establishing a positive and collegial environment. Teachers, who reinforce each other in ways that are congruent with each other, have the capability to improve student performance in all areas.

5. Recommendations

Recommendations based upon the results of the survey include:

5.1. School Culture and School Success

A school culture that is defined by a shared mission, vision, values and goals, is one of the most important aspects of school success (DuFour, DuFour, Eaker & Karhanek 2002). Because teaching has shifted from a culture of teacher isolation toward a culture of collaboration, the value and practice of collaboration should be embedded in any school district's mission, vision, values and goals.

5.2. Shared Accountability

Because the successful performance of all students is directly related to the school's mission, vision, values and goals, they must be clear to everyone, shared by all and supported by everyone. Open, honest and respectful dialogue among all colleagues and staff must exist. Provisions for the teachers to share in the philosophical basis of the school culture or beliefs as it relates to collaboration are critical to the success of the collaborative partnership, the school and the students.

5.3. Support for Collaboration

School leadership must provide school structuring that supports collaboration. School building leaders must be skilled in important areas such as: systems analysis, team processes, problem and data analysis, and shared decision making. These areas become extremely critical within collaborative planning teams and environments in order to continually improve and maximize the instructional program and performance of all children.

5.4. Professional Development

Professional development must be provided to all school personnel. An important area of professional development for collaborative partnerships might include the study of "best practices" for students with exceptional learning needs in the context of general education. Both special and general education teachers must be cognizant of the latest research in student learning and instructional practice or empowered to develop their own action research in order to find, apply and evaluate the best practices for the students they serve. For example, the use of unit planners for collaborative planning and implementation of instruction for all students in an inclusive classroom is one of the best practices

that should be considered, as it "prompts consideration of the principles of differentiated instruction, Universal Design for Learning (UDL) and multicultural education in a holistic format " (van Garderen & Whittaker,2006, p.20).

6. Conclusion

A student-centered school with a clear mission, vision, values and goals; a decision-making framework that incorporates teacher input; a school culture that embraces collaborative practices and research-based knowledge becomes a win-win situation. These circumstances allow for, and assure provision for, nurturing positive relationships between teaching professionals.

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A Study of Relationship between Organizational Culture and Leadership Styles in Iranian Institutes of Higher Education

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Abstract

This research suggests that there is a lack of congruence between the Iranian Institutes of Higher Education culture and the faculties desired culture. This conclusion is based on the empirical data, which indicate that faculties consider themselves as operating on a daily basis in a profession whose culture is characterized by an overarching desire for stability and control, formal rules and policies, coordination and efficiency, goal and results oriented as well as hard-driving competitiveness. Emphasizing this lack of cultural congruence, the respondents of this study also indicated that the faculties culture should be one that emphasizes flexibility, discretion, participation, human resource development, innovation, creativity, risk-taking, and a long-term emphasis on professional growth and the acquisition of new professional knowledge and skills, which is more aligned with the universities strategic external environment.

One of the principal reasons for the popular interest in the study of organizational culture is to determine the linkage between it and organizational performance (Berrio, 2003). This study has reviewed a previously assumed but unverified connection between organizational culture and leadership styles. It has uncovered a lack of congruence between the dominant type of organizational culture and leadership styles. This observed lack of congruence may be inhibiting performance and unconsciously perpetuating a cycle of caution and an over reliance on stability and control.

Keywords: Organizational culture- Leadership styles-Higher education

1. Introduction

1.1. Higher Education in Iran: Facts and Figures

Students

According to Iran's 4th five year development plan the higher education access target is to reach 30% of 18-24 year age group population by the end of the year 2010 (Tavakoli,2006).

Table 1-The estimated population of the country and 18-24 years old population (per hundred thousand) in 2005

| Total population 18-24 years old population | | | 18-24 years old population | | |
|---|------|-------|----------------------------|------|-------|
| Female | Male | Total | Female | Male | Total |
| 34.8 | 33.8 | 68.6 | 6.3 | 6 | 12.3 |

Table 2-Higher Education Student population and percentage of students in 18-24 years old population (per thousand) in 2005

| | |
|---------------------|------|
| Students | 3570 |
| Coverage Percentage | 20% |

Higher Education students number reached 2448000 in the year 2006. It is important to notice that the share of non-public Higher Education was 51.3% versus 48.7% for public HE.

Table 3-Higher Education Student population based on typed of institution in 2005-6 academic year

| | |
|-------------|---------|
| Part- Time | 417000 |
| Non- Public | 1257000 |
| Public | 774000 |
| Total | 2448000 |

Table 4-Number and Percentage Full-Time Faculty Members by Sector and Rank in 2003-4

| Rank \ Sector | Non-Public | | Non-Public | | Total | |
|---------------------|------------|---------|------------|---------|--------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Professor | 973 | 3.5 | 93 | 0.6 | 1066 | 2.5 |
| Associate Professor | 2009 | 7.1 | 128 | 0.9 | 2137 | 5 |
| Assistant Professor | 11012 | 39.2 | 3591 | 23.9 | 14603 | 33.9 |
| Instructor | 9282 | 33 | 10937 | 72.8 | 20218 | 46.9 |
| Others | 4832 | 17.2 | 279 | 1.9 | 5110 | 11.9 |

1.2. Higher Education Current Situation

In 1969, 27.6% of total university students of the country (Iran) attended private universities; and by 1978 this rate had fallen to 20%. But in the early post revolution years and amid the Cultural Revolution this rate abruptly dropped to 5%. The following were among the possible reasons for this downturn:

- 1) Vulnerability of the private sector of education due to its growth in the shadow of the political power.
- 2) Constant disapproval of the private ownership by the leftist ideology, due to its ideological interests.
- 3) Frustration of the private sector development by existing legal environment and regulations.

At later stages following this intense slump, the contribution of the private sector again took an upward motion as by 1990 it accounted for 48.8% of total admission and 34.6% of total student body of higher education in the country, reaching by 2002 to 52.8% and 55%, respectively. This upward trend deserves consideration from some aspects:

- 1) The level of this growth is still inferior to the universally practiced contribution rate of private sector in higher education. Its role will become more evident, especially, if one considers the unmet social demand.

Owing to the limited public sources on the one hand, and very large young population wishing to enter universities on the other, the rate of private sector participation should have been raised much more than its current state.

- 2) Quantitative growth of private sector has not been associated, unfortunately, with the qualitative growth. In 2001-2002, whereas 55% of the total university students attended the private institutions, this sector accounted for only 30.5% of teaching staff and 30.5% of the total physical space of higher education system.

- 3) The individual private institutions have not experienced a balanced growth as the Islamic Azad University, in itself, accounted for 97.1% of total students of the private sector in 1998. By 2000, this rate rose to 97.4%. Needless to say, the contribution of all other private and nonprofit institutions was barely 2.6%.

- 4) The private sector focused too much on the arts, as in 2002 nearly 54.4% of student body and 50.46% of the total admission rate of this section were allocated for the arts, while the sciences accounted for only .65% and 9.25%, respectively. Regarding the Islamic Azad University, the overall contribution of the arts was 64.6%.

The private sector institutions resorted principally to bachelor's degree programs and associate degree programs, despite being highly potential for providing the applicants with significant advantages thanks to their lower cost as well as their higher efficiency in equipping them with knowledge and professional expertise and their future employment, did not receive the due attention. In 2000, of the total university student body, only 20.9% attended associate degree programs. By 2001 this rate increased to 31.2% for private and nonprofit sector. In respect to the regional participation of private sector, it has not experienced a balanced development: concerning the Islamic Azad University, the very eighth region, including Tehran, Ghazvin and Qom, accommodates 30.9% of all student body of

the university, while the region accounts for only 21.3% of the overall population of the country (Amin Mozaffari, 2007).

2. Theoretical Background

An examination of the literature in the fields of organizational culture and leadership finds that the two areas have been independently linked to organizational performance. For example, researchers have examined the links between leadership styles and performance (see Bycio et al., 1995), and also between organizational culture and performance (see Kotter and Heskett, 1992). Furthermore, numerous aspects of the organizational culture literature allude to the role of leaders in 'creating' and 'maintaining' particular types of culture (for example, Schein, 1992). Equally, the literature on leadership suggests that the ability to understand and work within a culture is a prerequisite to managerial effectiveness.

However, despite the implicit and explicit linking of culture and leadership in many parts of organization theory, little critical research attention has been devoted to understanding the links between the two concepts and the impact that such an association might have on managerial effectiveness. The absence of critical literature exploring the effectiveness implications of the links between organizational culture and leadership is surprising given the numerous references to the importance of the two concepts in the functioning of organizations (see, Schein, 1992). The aim of this paper is to provide empirical evidence of the links between different types of organizational culture, a range of leadership styles and managerial effectiveness. This is achieved through the presentation of the results of a cross sectional survey of leadership style, organizational culture, and managerial effectiveness across nine universities in Iran.

The paper begins with a brief review of the literature on organizational culture and leadership. This is followed by a discussion of the methodology adopted for the study and the presentation of the findings and analysis of responses to questionnaire exploring the links between the two concepts and managerial effectiveness. The evidence demonstrates that the relationship between leadership style and effectiveness is mediated by cultural congruence. In the final part of the paper, the conclusions and implications of the study are highlighted.

As more and more universities enter into new arrangements in 21st century, the need to assess organisational cultures becomes more important. The term 'organisational culture' has proved difficult to define, but several of its important components are agreed on by most researchers. These include the norms, perspectives, values, assumptions and beliefs shared by organisational members. Due to the abstract nature of these elements, there is a considerable challenge for external researchers who want to assess organisational culture. It is even difficult for members of an organization to describe their own culture. Cameron and Freeman (1991, p.31) use the old proverb "Fish discover water last" to illustrate the problem of assessing culture among those immersed in it.

The aim of this study is to provide insight into the construct of culture and its relationship with leadership styles in the context of higher education institutions, and to discuss competing values framework as one of approaches to measurement of culture. The paper starts with a discussion on how the concept of organisational culture is understood in the setting of higher education institutions, and is followed by a brief introduction to the tradeoffs between qualitative and quantitative approaches to assess culture. Based on the basic psychometric requirements for measuring culture, this study concludes by identifying some of the implications of selecting or designing instruments for assess cultural differences in higher education institutions.

3. Organizational Culture and Leadership Styles

Before attempting to describe the content of organizational culture, one should first know the concept of organisational culture. Organizational culture has been criticized as being conceptually weak, since it has been defined in many ways (Jelinek et al., 1983) and each definition emphasizes a particular focus or level. Since Schein (1992) published the book *Organisational Culture and Leadership*, more researchers have recognized culture as a multidimensional and multilevel concept. Schein describes three levels of culture. The first level consists of visible organisational structures and actions, such as dress code, facilities and procedures. This level of culture can be easily observed. The second level consists of espoused values manifested in the public images of organisations, such as strategies, goals, and philosophies. While not as visible as the artefacts present in the first level, these values can be ascertained by norms, the way things are done in the organisation. The third level consists of basic assumptions, or unconscious beliefs, perceptions, thoughts, and feelings. These determine both behaviour norms (the way people should behave) and organisational values (the things that are highly valued).

According to Bueno and Bowditch (1989, p.137-139), the visible elements created by an organization on the first level are treated as objective organizational culture, while the elements on the second and the third levels are concerned with subjective organizational culture. Most researchers agree that subjective culture is more important as a significant determinant of beliefs, attitudes, and behaviours, and it thus provides a more distinctive basis for characterizing and interpreting similarities and differences among people in different organizations. On this understanding, university culture as a particular form of organisational culture can be defined "as the collective, mutually shaping patterns of norms, values, practices, beliefs, and assumptions that guide the behaviour of individuals and groups in an institute of higher education and provide a frame of reference within which to interpret the meaning of events and actions on and off campus" (Kuh & Whitt, 2000, p.162). While the term organisational culture is used as if an organisation has a monolithic culture, most organisations have more than one set of beliefs influencing the behaviour of their members (Morgan, 1986; Sathe, 1985). Cultural diversity appears to be more obvious in higher education institutions (Kuh & Whitt, 2000, p.161). The 'small homogenous society' analogues used in anthropological studies of culture

is sorely strained when applied to many contemporary institutions of higher education.

Large public, multipurpose universities are comprised of many different groups whose members may or may not share or abide by all of the institution's norms, values, practices, beliefs, and meanings. Instead of viewing colleges and universities as monolithic entities, it is more realistic to analyze them as multicultural contexts that are host to numerous subgroups with different priorities, traditions, and values (Kuh & Whitt, 2000 p.161) .

This study pays particular attention to academic staff and specifically those engaged at the departmental level. Therefore, from the perspective of this paper, the culture refers to values, beliefs, and assumptions developed within an academic department by academic staff and those who manage academics through joint experiences over long periods of time. Nevertheless, disciplinary identity is not the sole source of the culture shared by academic staff members within an academic sub-unit. It is also subject to a variety of circumstances, such as national context, professional culture and organisational character (Austin, 1992; Clark, 1983, p.75; Välimaa, 1998).

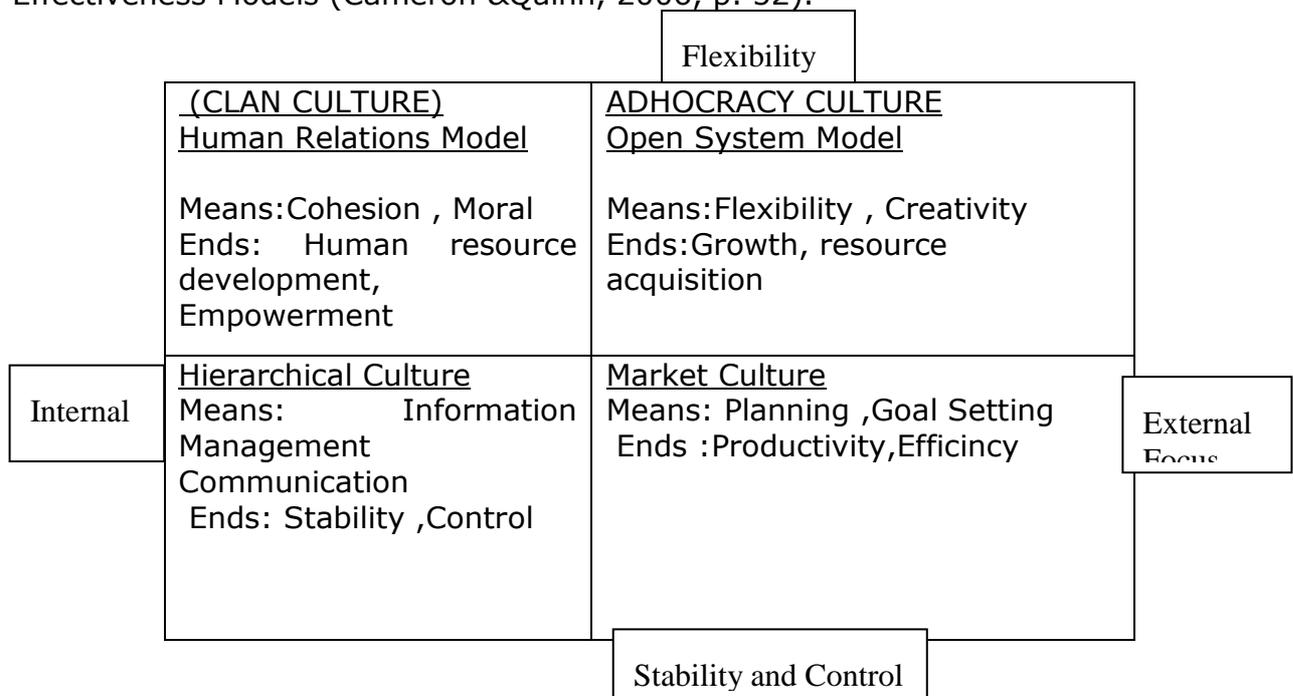
4. A Review of the CVF Model and the Study Methodology

An Overview of the Competing Values Framework (CVF) Model The Competing Values Framework (CVF) evolved from the work of Quinn and Rohrbaugh (1981, 1983) as they attempted to circumscribe the elusive definition for a generally agreed upon theoretical framework of the concept of organizational effectiveness. This framework was chosen for this study because it was experimentally derived and found to have a high degree of face and empirical validity. Additionally, the CVF was identified as having a high level of reliability matching or exceeding that of other instruments commonly used in the social and organizational sciences (Cameron and Ettington, 1988; Cameron and Quinn, 2006; Berrio, 2003).

The four quadrants of the framework, representing the four major cultural types: clan, adhocracy, market, hierarchy, provide a robust explanation of the differing orientations and competing values that characterize human behavior. The richness provided by the CVF is based on its ability to identify the basic assumptions, orientations, and values of each of the four cultural types. These three elements comprise the core of organizational culture. "The OCAI, therefore, is an instrument that allows you to diagnose the dominant orientation of your own organization based on these core culture types. It also assists you in diagnosing your organization's cultural strength, cultural type, and cultural congruence" (Cameron and Quinn, 2006, p. 33). In their research concerning organizational effectiveness, Quinn and Rohrbaugh (1981, 1983) statistically analyzed 39 indicators of organizational effectiveness as identified by Campbell, et al, (1974). Quinn and Rohrbaugh's analysis resulted in the bifurcation of the 39 effectiveness criteria between two major dimensions. The first dimension, which is labeled the "Structure" dimension, differentiates the organizational effectiveness criteria between those that emphasize flexibility, discretion, and dynamism and those that emphasize stability, order, and control.

The second dimension, which is labeled the "Focus" dimension, differentiates the organizational effectiveness criteria between those that emphasize internal orientation, integration, and unity and those effectiveness criteria that emphasize an external orientation, differentiation, and rivalry (Quinn and Rohrbaugh, 1981 and 1983; Cameron and Quinn, 2006). Within each of these two dimensions there is also a third set of values, which produces an emphasis ranging from organizational processes, such as planning and goal setting at one end of the spectrum, to an emphasis on results, such as resource acquisition at the other end. Quinn and Rohrbaugh (1981) labeled this third set of values as the organizational "Means -Ends" continuum. The two primary dimensions differentiating between organizational values emphasizing "Structure" and "Focus" produce four clusters of effectiveness criteria as depicted in Figure 1. The "Structure" axis is represented 100 by the "Flexibility - Control" continuum, while the "Focus" axis is represented by the "People - Organization" continuum in Figure 1 . Within each of these four quadrants the relevant "Means - Ends" values are enumerated.

Figure 1. A Summary of the Competing Value Sets and Effectiveness Models (Cameron & Quinn, 2006, p. 52).



Cameron and Quinn state that the significance of these clusters of organizational effectiveness criteria is that they "represent what people value about an organization's performance. They define what is seen as good right and appropriate...[and they]...define the core values on which judgments about organizations are made" (2006, p. 31).

Additionally, these quadrants represent opposite or competing values or assumptions. As you move, from left to right along the "Focus" (People - Organization) continuum or axis of the chart the emphasis shifts from an internal focus within the organization to that of an external focus outside the organization. As you move from the bottom of the chart along the "Structure"

(Flexibility – Control) continuum or axis the emphasis shifts from control and stability within the organization and the environment to that of flexibility and discretion within the organization and the environment. The diagonal dimensions also produce conflicting or competing values. For example, the values in the upper right quadrant emphasize an external focus concerned with flexibility and growth, while the values in the lower left quadrant accentuate an internal focus with control and stability (Quinn and Rohrbaugh, 1983). Hence, the competing or contradictory values in each quadrant form the basis for the “Competing Values Framework” name of the conceptual model upon which the present study is based. In their initial study, Quinn and Rohrbaugh (1981) also provided a brief review of four competing theoretical models of organizational effectiveness (Literature discussing these four models can be found elsewhere: the rational goal model, the open system model, the human relations model, and the internal process model, and they demonstrated how each of these four models was related to the four quadrants of their CVF model, see Figure 1.

In their analyses, Quinn and Rohrbaugh (1983) illustrate the importance that the human relations model places on internal flexibility, cohesion, morale, and human resource development and correlate it to the upper left-hand quadrant of their CVF model. The upper right-hand quadrant of the CVF model is correlated with the open systems model, which highlights the significance of external flexibility, readiness, growth, and resource acquisition. The lower left-hand quadrant of the CVF model is correlated with the internal process model, which underscores the significance of internal control, stability, information management, and communication. Finally, Quinn and Rohrbaugh state that the lower right-hand quadrant of their CVF model is correlated with the rational goal model, which underscores the importance of external control, planning, goal setting, productivity, and efficiency. Figure 1 provides a summary of the competing values sets and the four organizational effectiveness models. The significance of these four quadrants is that they represent how “over time, different organizational values have become associated with different forms of organization...[and that]...each quadrant represents basic assumptions, orientations, and values—the same elements that comprise an organizational culture” (Cameron and Quinn, 2006, pp. 32-33).

4.1. Organizational Culture Assessment Instrument (OCAI)

The characteristics used to classify cultural types result in an informative organizational profile based on current perceptions and desired preferences related to six “cultural subsystems” apparent at every institution. (see fig.1)

These criteria include:

- (1) Dominant organizational characteristics, which identify whether an organization is
 - a) A very personal place like a family
 - b) Entrepreneurial and risk taking
 - c) Competitive and achievement oriented
 - d) Controlled and structured

- (2) Leadership style, which can be described as
 - a) Mentoring, facilitating, or nurturing
 - b) Entrepreneurial, innovative, or risk taking
 - c) No-nonsense, aggressive, results oriented
 - d) Coordinating, organizing, efficiency oriented

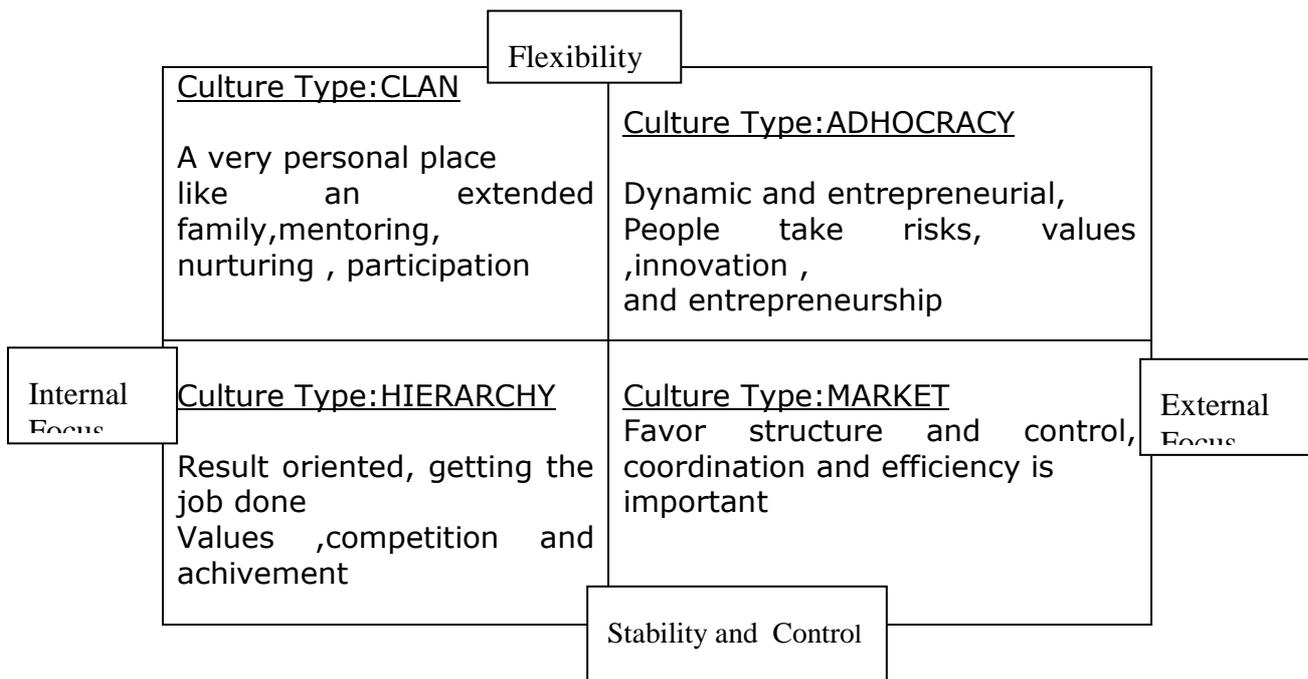
- (3) Management of employees, which emphasizes
 - a) Teamwork, consensus, and participation
 - b) Individual risk taking, innovation, freedom, and uniqueness
 - c) Competitiveness and achievement
 - d) Security, conformity, predictability

- (4) Organizational glue, consisting of
 - a) Loyalty and mutual trust
 - b) Commitment to innovation and development
 - c) Emphasis on achievement and goal accomplishment
 - d) Formal rules and policies

- (5) Strategic emphasis on
 - a) Human development, high trust, openness
 - b) Acquisition of resources and creating new challenges
 - c) Competitive actions and winning
 - d) Permanence and stability

- (6) Criteria for success, defined as
 - a) Development of human resources, teamwork, and concern for people
 - b) Having the most unique and newest products and services
 - c) Winning in the marketplace and outpacing the competition
 - d) Dependable, efficient, and low cost

Figure2. The four culture of competing values framework .Adapted from Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework, by K. S. Cameron & R. E. Quinn, 2006,

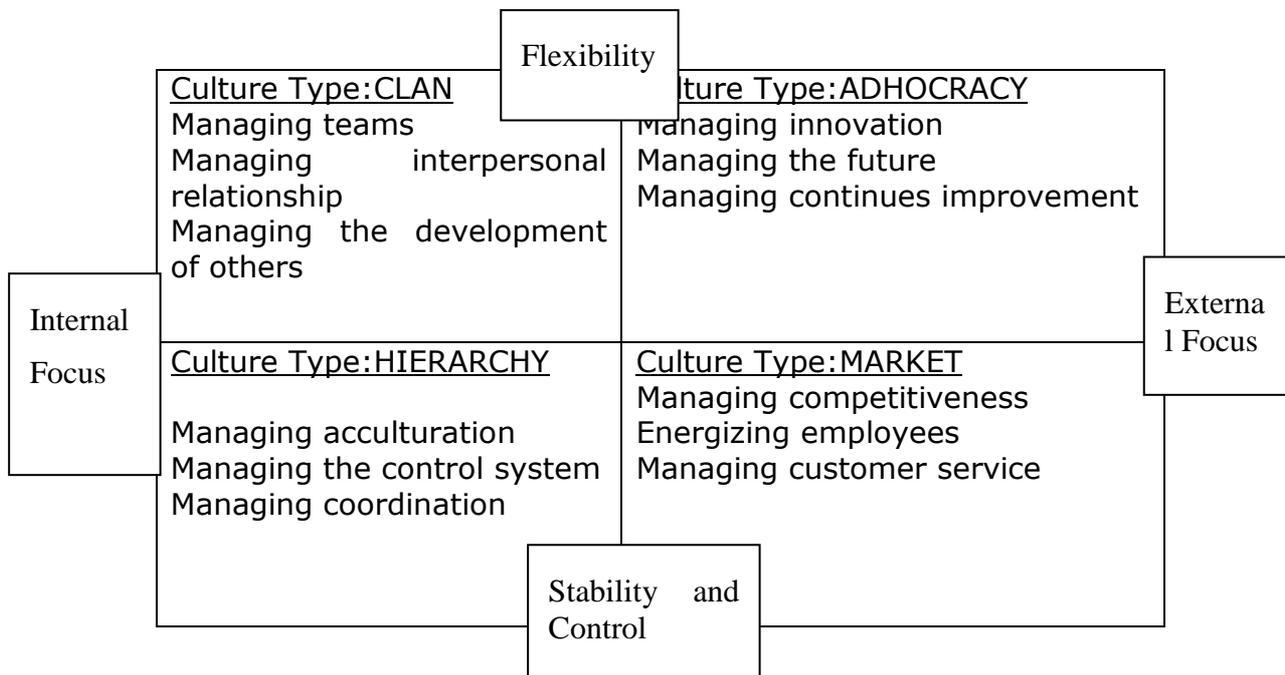


4.2. The Management Skills Assessment Instrument (MSAI)

Organizational culture is normatively defined as the deeper level basic assumptions and beliefs that are shared by organizational members (Schein, 1992). A significant aspect of this definition is the emphasis on "shared." Organizational behavior is manifested by individual behavior that reinforces and is consistent with the deep-level, basic underlying assumptions that constitute the organization's culture (Schein, 1999). Consequently, any change in organizational culture will be inhibited if organizational members do not modify their individual behavior to be compatible with the new cultural values (Cameron and Quinn, 2006).

Consequently, Cameron and Quinn developed the MSAI using the same framework as that of the OCAI in order to help managers and leaders identify the necessary skills and competencies that they must either develop or improve to facilitate an organizational culture change effort. The MSAI can also be used to enhance leadership abilities to improve organizational performance within the context of a current culture if a cultural change is not necessary. Based on an analysis of 15 studies, which researched the managerial leadership skills characteristic of a number of highly effective managers and organizations worldwide, Whetten and Cameron (1998) interviewed over 400 top executives to identify which skills were most important for individual leadership success (Cameron and Quinn, 2006). Cameron and Quinn consolidated the resulting list of successful leadership skills into a set of 12 competency categories which are mainly applicable to mid-level and upper-level managers (2006). See Figure 3 for the 12 competency categories and their associated primary OCAI category.

Figure3. Critical Managerial Competencies (Cameron & Quinn, 2006, p. 120).



4.3-Leadership Styles (The eight roles of the leader)

The competing values framework points out the contradiction and dynamics of the organization; it also implies that people at the managerial level must be able to perform paradoxical and dynamic behaviours (Quinn, 1988). Quinn (1984,1988) develops eight competing roles that should be played by supervisors. Most organizational leaders tend to emphasize some roles, while ignoring the other roles completely. In order to function effectively, managers must find a balance among the eight roles. Within the competing values framework, people who undertake leadership positions need to have various competencies in order to play effectively different roles in each of the four quadrants.

The rational goal model: director and producer roles. This leadership style is directive and goal oriented, and the primary roles are those of director and producer. As a director, the manager's role is to provide direction. A director is expected to clarify expectations through planning and goal setting. He or she is supposed to be a decisive initiator who defines problems, generates solutions, clarifies tasks, establishes rules and procedures, and gives instructions to subordinates. A producer is the second role in the rational goal model. A producer is expected to increase production and facilitate goal accomplishment. In this role, a supervisor is goal-oriented and work focused. A producer has high energy and motivation; he or she is able to accept responsibilities, accomplish stated goals and maintain high productivity.

The internal process model: monitor and coordinator roles. This leadership style is conservative and cautious, and the manager's job is to be a monitor and a

coordinator. As a monitor, a supervisor is expected to keep track of the activities in the unit, make sure that people are following the rules and procedures, and see if the unit is meeting its quotas. A monitor is good at analyzing all the facts and details. He or she must handle paperwork, review and respond to routine information, carry out inspections and tours, and review other documents.

A monitor is also expected to present information effectively through written communication. A coordinator is expected to maintain the structure and flow of the system. The person in this role is supposed to be dependable. A coordinator takes on various behaviours, such as coordinating staff efforts, scheduling task activities and handling crises in order to maintain control and stability.

The human relations model.' facilitator and mentor roles. This leadership style is concerned and supportive, and the roles of the supervisor are those of facilitator and mentor. A facilitator is expected to build cohesion and teamwork, and manage interpersonal conflict. In this role the supervisor is process-oriented. Expected behaviours include intervening in interpersonal conflicts, using conflict management, increasing morale and cohesion, and facilitating group problem-solving.

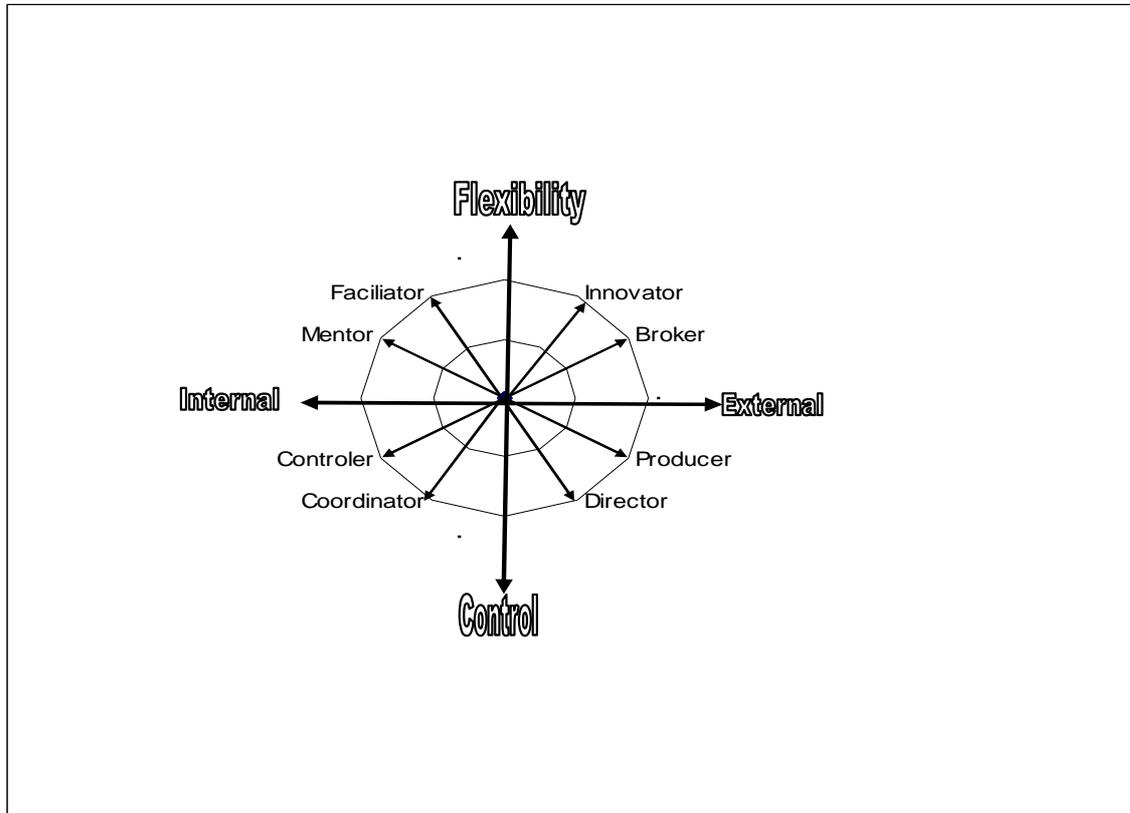
As a mentor, a supervisor is expected to be supportive, considerate, sympathetic, approachable and fair. A mentor listens to people, provides support, conveys appreciation and gives credit for their accomplishment. A supervisor also helps with skill building, provides training opportunities and helps people to plan for their self-development.

The open systems model: innovator and broker roles. This leadership style is inventive and risk-taking, and the manager's job is to be an innovator and a broker. As an innovator, a supervisor is expected to foster adaptation and change. An innovator pays close attention to the changing environment, identifies trends, generates new ideas and implements needed changes. In this role the supervisor is expected to be a creative person, who can see the future, envision innovations and convince others that the changes are necessary.

A broker is expected to be politically astute, persuasive and influential. In this role the supervisor is concerned with spanning boundaries, maintaining external legitimacy and obtaining external resources. A broker represents the company when it is necessary to meet and negotiate with people from outside the work unit, to market the company's product or services, to act as a liaison and to acquire external resources.

Although the eight leadership roles should exist simultaneously, they do not necessarily receive equal emphasis. For example, a new organization that is concerned with establishing itself with external environment will emphasize more on the innovator and broker roles. Managers must decide which goals they want to achieve first and then emphasize certain roles to facilitate accomplishing these goals. (see fig .4) A questionnaire was used to collect information for measuring leadership styles. This survey instrument was developed by Quinn et al. (1990) and is called the `Organizational Leadership Assessment'(OLA).

Fig 4: Leadership roles in the competing Values framework .Source :Adapted from Quinn (1988,p.86)



5. Research design and methodology

The present study is based upon a quantitative evaluation of the current and preferred culture of the Iranian higher education as identified by its senior level leaders and faculties. This study was based on information obtained from a survey of all full-time faculty and administrators in a statewide system of 9 big universities in Iran. The purpose of the present study is to explore the relationship between organizational culture and leadership styles and to extend current theory and empirical knowledge concerning this relationship in Iranian higher education. These objectives will be accomplished by answering the primary research question: Is the organizational culture of the Iranian higher education congruent with the leadership styles its administrative?

Completed surveys were obtained from 562 (20%) of the 3839 full-time faculty and administrative staff of the 9 institutions, with response rates for individual campuses ranging from a low of 11% to a high of 28%. The typical respondent was a male (83.6%) with a mean of 11.21 years of professional experience at the university, and this average level of experience varied from a low of 1 year to a high of 34 years. The majority of respondents held a Ph. D degree (76.9%) as their highest academic degree. There was a fairly even distribution of respondents in terms of whether they held administrative (8.7%) or faculty (91.3%) positions at the institutions.

Prior to the examination of associations between leadership style, organizational culture, and managerial effectiveness, a phase of data reduction was necessary. The construction of meaningful indices was initiated by the use of principal components analysis with varimax rotation. Factor analysis was deemed necessary since it was considered prudent statistically to ascertain whether the adopted measures of organizational culture, managerial effectiveness and leadership style captured differing dimensions of culture and style. The principal components analysis of items pertaining to organizational culture (see Table 1) and items relating to leadership style (see Table 2) were conducted individually.

As indicated in Table 4.2 Cronbach's alpha was used to determine the reliability coefficients for both the OCAI "Now" and "Preferred" series of questions, and these reliability scores are listed for each cultural type in their respective column. The results of this study are very consistent with the previous data and provide strong support for Cameron and Quinn's (2006) assertion that the OCAI is a reliable instrument that measures culture types consistently.

Table5. OCAI Reliability Coefficients Using Cronbach's Alpha Methodology

| Culture Type | Reliability Coefficients "Now" | Reliability Coefficients "Preferred" |
|--------------|--------------------------------|--------------------------------------|
| Clan | /80 | /66 |
| Adhocracy | /82 | /68 |
| Market | /80 | /62 |
| Hierarchy | /84 | /74 |

Table 6. MSAI Reliability Coefficients for the 12 Competency Categories (See Table 3.3)

| Culture Type | MT | MI R | M D | MI | M F | MCI | MC | EE | MCS | MA | MCS | MC |
|--------------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Clan | /74 | /84 | /82 | | | | | | | | | |
| Adhocracy | | | | /69 | /84 | /83 | | | | | | |
| Market | | | | | | | /82 | /76 | /75 | | | |
| Hierarchy | | | | | | | | | | /76 | /75 | /84 |

In conclusion, if the OCAI and MSAI are to be useful tools in an organizational culture change effort, then these instruments must be able to measure

organizational culture and managerial leadership skills (validity) and they must be able to do so reliably (reliability). The evidence provided in this chapter supports the assertion that there is a high level of confidence that the OCAI is both a reliable and a valid measure of organizational culture type, strength, and congruence, and that the MSAI is a reliable and valid measure of the management skills that match the Competing Values Framework, which underscores the quadrant development behind the OCAI model. (see Tables 1 and 2)

6. Analysis of the Research Hypotheses

The principal purpose for this study was to answer the following primary research question: Is the organizational culture of Iranian Universities congruent with the leadership styles and managerial skills? In order to answer this question, four research hypotheses were outlined below, to empirically test the degree of congruence between the organizational culture and leadership styles . The three research hypotheses are:

Hypothesis 1: There is a lack of congruence between university’s desired and current culture.

Hypothesis 2: The more congruence are between organizational culture and leadership styles the more effectiveness will be in managerial skills.

Hypothesis 3: The more congruence are between organizational culture and managerial skills the more effectiveness will be in universities.

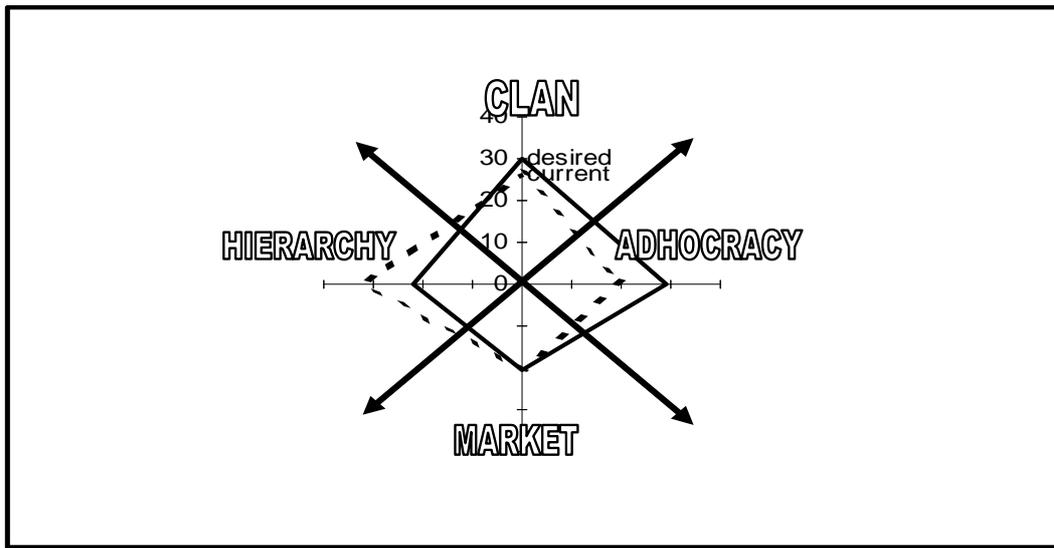
6.1. Testing of Hypothesis 1:

Hypothesis 1 postulates that the current culture of universities is not consistent with desired organizational cultures . The data provided strongly suggests that the “adhocracy” culture type is the desired culture type, as identified by the Competing Values Framework (CVF) (Quinn and Rohrbaugh, 1983), that is representative of organizational cultures supportive of adaptive, innovative, flexible, dynamic, and entrepreneurial behavior. Consequently, when the OCAI data values for the current culture of university are plotted on an OCAI profile chart the predominant culture type will be plotted in the Hierarchy quadrant and predominant desired culture type will be plotted in the Adhocracy quadrant.(see fig -5)

Table -7:Mean difference between current and desired culture

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|-------------|--------------------|----------------|-----------------|---|----------|---------|-----|-----------------|
| | | | | 95% Confidence Interval of the Difference | | | | |
| | Mean | Std. Deviation | Std. Error Mean | Lower | Upper | | | |
| 1 CLAN | -3.88162 | 12.23381 | .53804 | -4.93865 | -2.82460 | -7.214 | 516 | .000 |
| 2 ADHOCRACY | -9.09794 | 11.05617 | .48625 | -10.05321 | -8.14266 | -18.710 | 516 | .000 |
| 3 MARKET | .97424 | 10.99104 | .48527 | .02088 | 1.92759 | 2.008 | 512 | .045 |
| 4 HIERARCHY | 8.22590 | 15.38230 | .67783 | 6.89425 | 9.55755 | 12.136 | 514 | .000 |

Fig 5-OCAI Profile Chart for the "Current" and "Dsired " Organizational Culture



6.2. Hypothesis 2

The relationship between leadership styles and managerial skills effectiveness was examined by means of a stepwise multiple regression analysis. Thus, the regression model contained only significant predictors in the order of predicting the outcome. The 8 scales of the leadership styles served as predictor variables, while the managerial skills effectiveness served as criterion variables. The overall regression was significant ($F(3, 406) = 123.086, p < 0.001$, and $R^2 = 0.51$), and 3 of the 8 coping leadership styles were significant predictors of managerial skills effectiveness. These are reported in Table 2. Together, these three variables accounted for 51% of the variance in managerial skills effectiveness. Moreover, 44.9% of the variance in the managerial skills effectiveness can be attributed to adhocracy leadership styles. Adhocracy culture is faculties desired culture (see fig-5).

6.3. Hypothesis

The overview of the stepping process indicates that five of the twelve candidate predictors (twelve managerial skills) included in the final model. They are entered into the equation in this order: Managing innovation, Managing the future, Managing teams, Managing interpersonal relationship and Managing continuous improvement. Managing innovation and Managing the future variables are related to Adhocracy Culture and 67% of the variance in the managerial skills effectiveness can be attributed to adhocracy managerial skills. Adhocracy managerial skills explain 53% of the variance in the managerial skills effectiveness.

Table 8. Results of the Stepwise Multiple Regression of leadership styles and managerial skills effectiveness

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| (Constant) | .827 | .123 | | 6.713 | .000 |
| Innovator | .329 | .078 | .324 | 4.198 | .000 |
| Facilitator | .269 | .069 | .271 | 3.904 | .000 |
| Broker | .145 | .061 | .142 | 2.379 | .018 |

Dependent Variable: Managerial Effectiveness

Table 9. Results of the Stepwise Multiple Regression of managerial skills and managerial skills effectiveness

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------------------------------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| (Constant) | .187 | .086 | | 2.172 | .030 |
| Managing innovation | .297 | .047 | .306 | 6.298 | .000 |
| Managing the future | .241 | .047 | .242 | 5.107 | .000 |
| Managing teams | .206 | .052 | .200 | 3.981 | .000 |
| Managing interpersonal relationship | .132 | .044 | .130 | 3.017 | .003 |
| Managing continues improvement | .073 | .032 | .085 | 2.268 | .024 |

Dependent Variable: managerial skills effectiveness

7. Conclusions and Recommendations

Due to historical reasons, governments involved almost in all aspects of the everyday life and private sector lagged marginally behind the government with too limited opportunity for developing. Archaeological excavations yielding pit hoi

full of gold coins, account for the unsecured state of investment in the country, in which these wealth, instead of turning into productive farmlands, flourishing factories or universities, took refuge in these archaeological ruins. Irrigation-oriented economy^{ix} was another reason for expansion of the government. Physical geographic criteria and vastness of the plateau as well as the limited water resources in major portion of it required the government to engage in water supply process through developing flumes and subterranean canals and with bringing the natural sources under its control, the government assumed greater involvement in daily life.

we are also aware of the fact that the limited nature of government resources and inefficiency of state bureaucracy in managing the higher education institutions in its modern sense render it difficult for government to respond logically to the internal and external demand. The experience of a number of countries, including Malaysia, Australia and Japan, shows that in order to respond to social demand, they have diversified the financial and credit resources of universities.

The same factors resulted in insufficient development and growth of private sector within the political economy of the country. Despotism and insecurity crippled the institutionalization of established ownership. This in turn deprived the private sector of practicing a decisive, leading and creative role in educational investment and establishing educational institutions, especially with reference to higher education.

we are also aware of the fact that the limited nature of government resources and inefficiency of state bureaucracy in managing the higher education institutions in its modern sense render it difficult for government to respond logically to the current higher education problems. The experience of a number of countries, including Malaysia, Australia and Japan, shows that in order to respond to this social demand, they have diversified the changed management and financial and credit resources of universities.

The study data powerfully indicate that there is a lack of congruence between the current culture (as indicated by the (fig 5) faculties desired type of culture. In addition, there is a congruence between the current culture and the individual managerial skills of administrative . What the congruence suggests is that there may be a paradoxical relationship between the managerial skills that are applied and faculties desired culture. In other words, the managerial theory applied in the formal education process can be considered to be analogous to the "espoused values" of the faculties desired type of culture.

The data also demonstrate that there is a relatively homogeneous faculty culture. Despite the diversity of the respondents, the data suggest that these faculties have been acculturated in such a manner as to view the academic staff profession in a fairly consistent way.

The research data provide empirical supports that the training and academic leader development programs of higher education are not adequately linked and

^{ix} Hydraulic economy

integrated within the faculties desired culture. The future strategic environment which confronts the academic profession can be characterized by ambiguity and uncertainty. Academic organizations whose organizational culture can be characterized as emphasizing flexibility, discretion, and innovation have the greatest potential to operate within ambiguous and uncertain environments. The research data strongly suggest that current culture is preventing the individual exercise of an adhocracy culture. Consequently, as suggested by Schein, "organizational cultures are created in part by leaders, and one of the most decisive functions of leadership is the creation, management, and sometimes even the destruction of culture"

The findings of this study are in agreement with the fact that almost of the universities in a nationwide study currently have a Hierarchy culture type (Current culture type). In the same study, faculties and department chairpersons perceive the Adhocracy culture as the most effective culture type for colleges and universities (desired culture type).

The adhocracy culture, as assessed in the OCAI questionnaire, is characterized by a dynamic, entrepreneurial, and creative workplace. People stick their necks out and take risks. Effective leadership is visionary, innovative, and risk oriented. The glue that holds the organization together is commitment to experimentation and innovation. The emphasis is on being at the leading edge of new knowledge, products, and/or services. Readiness for change and meeting new challenges are important. The organization's long-term emphasis is on rapid growth and acquiring new resources. Success means producing unique and original products and services.

The strength of the culture is determined by the number of points conceded to a specific culture type. In the current situation, the Hierarchy culture type is slightly strong, while in the preferred situation the Adhocracy culture type is considered moderately strong. The Adhocracy classification in the preferred situation is statistically significant difference between the mean scores of the Clan, Hierarchy and Market cultures in the preferred situation. This finding suggests that nine universities possess a combination of the core characteristics of the dominant Adhocracy culture with those of the less dominant Clan culture type. In terms of the leadership style, faculties perceive their leaders and administrators as currently having a Hierarchical type of culture, wanting them to change to a preferred Adhocracy culture type.

The study demonstrates that there is a relationship between organizational culture and leadership styles; The more congruence there is between organizational culture and leadership styles the more effectiveness will be in managerial skills (Hypothesis 2). There were some weak relations between culture and effectiveness. Furthermore, the significant relationships between managerial skills and effectiveness also suggest that culture may have important indirect effects on effectiveness (Hypothesis 3). Organizational culture, as conceptualized in the competing values framework (Quinn & Rohrbaugh 1981), thus seems to have a potential for furthering the understanding of managerial skills and effectiveness.

Although the study applies to nine State Universities, it has implications for other universities on a national level. The researcher recommends that other universities perform similar studies in order to have a better understanding of the current organizational culture type, which could help universities make the necessary changes in pursuing enhanced effectiveness of its programs.

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Race: Think You Are An Unbiased? Think Again!

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Abstract

Think You Are An Unbiased Teacher? Think Again! is a highly interactive and thought-provoking workshop that helps participants uncover any biases, stereotypes and preconceived notions they may have about urban classrooms and the students within them. In this workshop, the facilitator presents real-life classroom scenarios. Then in groups, the participants are required to guess the race and gender of the subjects in the scenarios. This teacher-bias workshop is for anyone who is willing to closely examine and address his/her biases. It does not "test" to see whether participants have personal biases. Instead, this workshop is designed to help participants uncover and acknowledge personal biases that are believed to be inherent and learned. In addition, this workshop offers suggestions to participants on how to avoid introducing such biases into their classrooms.

Keywords: Teacher Bias - Race Discourse - Diversity

1. The Influence of Race in Society

Race is a controversial topic that affects all of us in our society. We currently see its preeminence influencing the 2008 United States (US) Presidential Elections; we have seen race riots take place in France, and as professional educators and people of color; the authors of this paper have personally experienced the wrath of racism in our society, including within our chosen profession of education. "Racism can be masked by jokes it can be delivered in a subtle fashion and it can be found in any environment at any time. It can rear its ugly head even at the unconscious level; and even the most innocuous and reticent individuals with good intentions are capable of offending without knowing" (Poulton, 2007, p.28). Regardless of how racism is delivered or conveyed, it often "evokes emotions such as fear, distrust, anger, denial, guilt, ignorance, naiveté and the wish for simple solutions" (Wijeyesinghe, Griffin & Love, 1997, p.82). Further, because it is an "invisible presence that acts in a major role to determine how our society functions," (Johnson-Bailey & Cervero, 2000, p. 148) racism, as an "intangible influence" (Poulton, p.28) must be openly acknowledged and addressed both on the societal level and within the arena of education.

2. Racism in Academia

This revelation of our experiences with racism in academia should not be surprising, given the fact that education exhibits society's values, reproduces existing systems of power, and functions to maintain the hierarchical systems in Western society where privilege is usually accorded along existing lines of

established rights and entitlement. If race has the power to impact our larger society and also our day-to-day interactions with one another, then why could it not penetrate the walls and halls of academia? In this paper, we will discuss the power and influence of race in our education system and its ability to impact our interactions with one another as is highlighted in the workshop entitled, "Think You Are An Unbiased Teacher? Think Again! In this paper we will also offer suggestions to teachers on how they can confront their racial biases in order to understand the "how" and "why" they do things and to also understand how positionality can impact the process of teaching. For example, McIntosh's (1990) oft cited article, "The Invisible Knapsack" persuasively demonstrates the nature of privilege associated with white skin privilege. She develops a list of statements that illustrate how, as a white person, she can ignore situations with which people of color must contend all the time. Conversely, the term "microaggressions" (Solórzano, Ceja, & Yosso, 2000; Sue, Capodilupo, Torino, Bucceri, Holder, Nadal, et al., 2007) refers to the small insults and inconveniences that people of color must endure on a daily basis. These two phenomena (the invisible knapsack and microaggressions) demonstrate how cultural identity is tied to social location with implications for the exercise of social power to oppress or to be oppressed (Maher & Tetreault, 1993; 1997).

Research on positionality reveals that individuals have multiple and overlapping identities such as race, class, gender, sexual orientation, occupation, marital status, etc. Each of these identities is embedded within systems of power and, therefore, for each individual identity and social location, are important variables in shaping what we know and how we know it (Alcoff, 1988; Takacs, 2003). For example, in considering the positionality of women, Alcoff (1988) writes:

When the concept of woman is defined not by a particular set of attributes but by a particular position, the internal characteristics of the person thus identified are not denoted so much as the external context in which that person is situated. The external situation determines the person's relative position, just as the position of a pawn on a chessboard is considered safe or dangerous, powerful or weak, according to its relation to other chess pieces. (p. 433)

Thus, persons of seemingly similar cultural identity, for example Japanese women and Korean women, may indeed be positioned quite differently depending on social class, sexual orientation, religion or professional association. Therefore, in studying classroom dynamics and culture, it is important to be conscious of not only the cultural background of individuals but also their positionality. With this point in mind, consider the following scenario offered in the workshop "Think You Are an Unbiased Teacher? Think Again!" The scenario reads:

A teacher enters the classroom during the second week of classes and is asked for help by one of the students. While in the middle of assisting the student, the student respectfully interrupts the teacher and asks, "Why are you here?" "Why are you teaching here when you can work anywhere else? "

Participants in the workshop are asked to guess the race and gender of the teacher and the student involved in the scenario, in addition to contemplating the motivation behind the student's questions. In essence, the participants are

forced to access “what they know” and generate a group consensus on the suspected positionalities of the teacher and student that “makes sense.”

However, invariably the participants in the workshop incorrectly guess the race and gender of the teacher and student. In fact, when participants learn of the true identities of the teacher and student in the real-life scenario, there is often shock. In this particular scenario, both the teacher and the student is Black. Yes, the two shared the same *race* but their positionalities made them different. The Black male student asked the Black female teacher *why was she there when she could be anywhere else?* because the teacher’s positionality as an educator and being educated created the distinction between the two. Thus, to reiterate Alcott’s (1988) point, the external situation, in this case, the title of *teacher* in the classroom, determined the perception of the Black female teacher as *other* in the eyes of the Black male student.

This scenario exemplifies Brookfield’s (1986) teaching-learning transaction because “it is a highly complex psychosocial drama in which the personalities of the individuals involved, the contextual setting for the educational transaction, and the prevailing political climate crucially affect the nature and form of learning” (p. vii). The scenario also underscores just how important it is for *all* teachers, even those of color, to make the effort to fully understand their students even when they are of the same race! A teacher having the same skin color as her students is not a guaranteed prerequisite for acceptance. This was the lesson learned by the Black female teacher who was surprised by the student’s line of questioning, especially since the teacher made a deliberate and conscious decision to teach in an “inner city school” after earning her teaching degree. Her intent was to be a “role model” for her students; a person whom they could see as an example of what was possible. However, the teacher was not automatically viewed by the students as the *same* because of her position and education. Ultimately, however, after being “*tested*,” by the students the teacher gained their respect and was eventually considered a role model--a title the teacher mistakenly thought she automatically possessed because of her race. It therefore, is safe to conclude that even when educators and practitioners acknowledge race as a variable that affects teaching and learning, they may do so without fully acknowledging how race shapes the ways in which they plan, practice and approach students from different or even similar racial backgrounds.

Consider another scenario presented in the workshop, “Think You Are An Unbiased Teacher? Think Again?” The scenario reads:

A prospective doctoral student makes contact over the phone with the Graduate Director of a program in which the student is interested. Upon hearing the doctoral candidate’s area of research interest, the Graduate Director is very interested and excitedly invites the student for a meeting the following week. However, upon meeting the candidate in person, the Graduate Director immediately decides that there is a “better” program for the student to explore and abruptly ends the meeting before it even starts.

Participants in the workshop are asked to guess the race and gender of the student and Graduate Director in this real-life scenario. In addition, the participants are asked to “figure out” through group discussion why the Director abruptly changed his/her mind. Again, the participants’ decisions and theories

are consistently incorrect. The real identities of the Graduate Director and the prospective student are White female and Black female respectively. Once realizing that the prospective student was Black, the Director promptly redirected the student to another program for “*minority*” students at another university. This suggestion was made to the student after the Director made her wait 20 to 30 minutes outside her office despite their set appointment time. Then, to add insult to injury, the Graduate Director wrote the number for the other program on a piece of paper and boldly and callously told the student that when she called the number for the “minority program” she should be sure to mention that she (the student) was Black because she sounded White over the phone! The student was very upset about the situation but decided (against the suggestions of many) not to take action against the Director.

3. Addressing and Confronting Racial Biases

According to Johnson-Bailey and Cervero (2000), people of color are viewed as “the other” and are seen through a lens that places “the other” in a deficit position (p. 150). This scenario really highlights their point. While most teachers may indeed be content specialists in a particular discipline, they may not know about, be aware of, or even care about different cultural groups and how they relate to the curriculum and the overall enrichment of a program. Teachers must have knowledge and competence, i.e., knowledge, preparation, and ability to teach balanced perspectives or issues. Nieto (1999) recommends five attitudes or skills for teachers in diverse settings: 1) understanding how affirming diversity is about social justice, 2) understanding the impact of structural inequality on students of color and the poor, 3) understanding diversity as a resource in the instructional process, 4) effective teaching involves respecting and affirming cultural differences, and 5) becoming a multicultural person. In addition, being committed to understanding cultural differences and working across cultural boundaries is a necessary first step to learning multicultural content and culturally relevant teaching. Parker Palmer (1998) summarizes this beautifully when he says:

As a middle-class North American, I am unlikely to have an intimate relation to the poor or to the experience of poverty, but it is crucial that I feel my accountability for the poor and their plight. I am unlikely to have an intimate bond with the people of the Amazon basin and their ravaged rain forests, but it is critical that I understand my ecological interdependence with them and to their habitat. (p. 91)

It was unfortunate and disturbing that the Graduate Director, at that time of the incident, was still teaching students including those from diverse cultural backgrounds. The Director’s comment to the prospective student was at best, blatantly insensitive, couched in arrogance, and secured with the power of her position as Director. If she was so comfortable with her abuse of power with a perfect stranger, one could only imagine just how comfortable she exercised her power in her classes where students were at her mercy with their grades in her hands. Clearly, the issue of cultural identity and positionality play out in classroom environments by affecting the attitudes and behaviors of learners to each other, to teachers, as well as the attitude and behavior of teachers to learners (Brown, 2000; Johnson-Bailey & Cervero, 1998; Tisdell 1993). The

aforementioned scenario is indicative of how “race as an invisible presence...determines the ordering of the world along set queues [and] as a person is categorized as belonging to a race, that person is also accorded all the rights, privileges, and baggage that accompanies the classification” (McIntosh, 1995, in Johnson-Bailey and Cervero, 2000, p.148). However, this type of behavior exhibited by the Graduate Director is not and should not be inevitable.

“Much like the nucleus of a cell that controls all of the cell’s functions, the teacher is the control center of the classroom who must dictate all that takes place in the classroom and have the capability to do so” (Poulton, 2007, p.34). This is why it is imperative that teachers be fully cognizant of their racial biases, be open to learning and change, and be “critically reflective” (Brookfield, 2000, p.45). “Teachers who are uncomfortable with race and who do not address this discomfort are in danger of allowing their discomfort and possibly fears, to influence their approach to students and their pedagogy” (Poulton, p.34).

In his chapter entitled, *The Concept of Critically Reflective Practice*, Brookfield (2000) offered an example of a “typical shorthand narrative of critical reflection” (p.45) that we believe should be the aspirations of every teacher. The narrative reads:

I used to teach in an unwittingly oppressive way, perpetuating inequities of race, class, and gender. Now—as a result of a disorienting dilemma that caused me to reflect critically on my abuse of power—I have washed my practice free of the stains of racism, classism, sexism, and oppression.

However, the only way to accomplish this is to be fully aware and remain on guard against personal biases and be willing to stand corrected and held accountable in the face of offence to others. One viable method to achieve this awareness is through participation in the workshop *Think You Are An Unbiased Teacher? Think Again!*

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Auteurs / Authors

Alice A. Kozen, 75
 Barbara Iannarelli, 75
 Dionne Wright Poulton, 105
 Ender Durualp, 40
 Farough Amin Mozaffari, 84
 Harold Mattie, 75
 James Garraway, 61
 Joana Fernandes, 50
 Jorge Cunha, 50
 Juanita Johnson-Bailey, 105
 Kathleen Brown, 75
 Khorshid Padashi Asl, 84
 Kristine Augustyniak, 75
 Naghmana Ali, 5
 Neriman Aral, 40
 Pedro Oliveira, 50
 Philip C. Clarkson, 33
 Seyed Hossein Barshan, 17
 Talmadge C. Guy, 105

Index

Activity theory, 61
 American mission, 17
 Bilingual teaching, 33
 Child labor, 40, 41, 42, 43, 47, 48
 Collaboration, 75, 76, 81, 82
 Consultation, 75, 82
 Economic impact, 50
 Eugene Bourret, 17
 Haas school, 17
 Higher education, 50, 84
 Immigrants, 18, 33
 Inclusion, 75
 Knowledge difference, 61
 Lazarite mission, 17
 Leadership styles, 84
 Mathematics education, 33, 38
 Mathematics teaching, 33, 38, 39
 Mathematics understanding, 33
 Mission of Basil, 17
 Organizational culture, 84
 Productivity, 61, 62, 63, 67, 90, 103
 Regional development, 50
 Working children, 40, 48