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VISION

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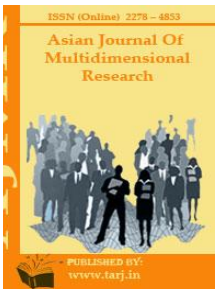

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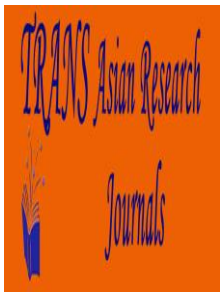

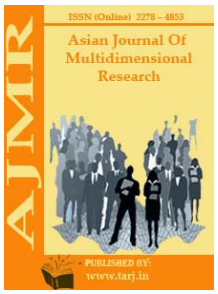

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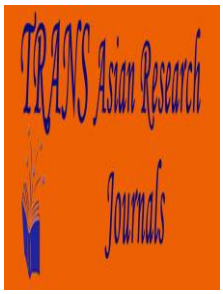

CONSTRAINTS FACED BY THE FARMERS IN FARM MECHANIZATION IN ETAWAH DISTRICT (U. P.)

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ABSTRACT

Mechanization generally enhances human capacity, leading to intensification and increased productivity as a result of timely planning, weed control, harvesting, post-harvest handling and accessibility to markets. It also reduces drudgery, making agricultural more attractive enterprises. Mechanization of agriculture should not only be guided by the goal of higher returns to the farmers and to the Industry, but also by its contribution to the balanced agricultural development of the different regions / areas having diverse socio-economic and agro-climatic conditions. This has been a constraint at the all-round and even spread of development of agriculture in the country. Keeping in view the facts mentioned above regarding constraints in agriculture farm mechanization, a study was conducted in Etawah district. It reveals from the findings of the study that the majority of the TOF group (76.39%) and BOF group (76.47%) belonged to single family system. The maximum TOF (44.44%) and BOF (47.80%) groups were having sandy loam type of soil. The fertility status of TOF (47.22%) was higher than BOF (23.53%) group. Large size of holdings (41.67%) were found in TOF group while absent in TOF group. The farm inventory status of TOF group (41.18%) was higher than BOF group (11.76%). Majority of the farmers were facing the constraints viz. high cost of farm machinery implements/equipments (rank^{1st}), low investment capacity (rank^{2nd}), small size and fragmented land holding (rank^{3rd}), lack of appropriate farm machinery (rank^{3rd}), low risk bearings capacity (rank ^{4th}), poor credit support system (rank ^{4th}), poor availability of agricultural inputs (rank ^{5th}), lack of spare parts and service centres (rank ^{5th}). Therefore, there is a need of strengthened

extension system, strengthened credit system and strong research base in agril. machinery, implements/equipment suited to location specific conditions.

KEYWORDS: *Agricultural inputs, Production, Agricultural Mechanization and Socio-EconomicCondition.*

INTRODUCTION

Agriculture is very important in India, it is the main source of economic livelihood for the majority of the India's population and agricultural inputs and services are the basic requirements in the agriculture. Raising the productivity of the crops, vegetables, trees, and livestock is depends on the farm inputs and services. Firstly, size of land holding, total cropped area, percentage of waste land, secondly, evaluate the level of agricultural inputs and mechanization, lastly, examine the level of commercialization and socio-economic phenomena. **Babu Ali and MohdAbushad** (2014).Agricultural mechanization implies the use of various power sources and improved farm tools and equipment, with a view to reduce the drudgery of the human beings and draught animals, enhance the cropping intensity, precision and timelines of efficiency of utilization of various crop inputs and reduce the losses at different stages of crop production. The end objective of farm mechanization is to enhance the overall productivity and production with the lowest cost of production. The contribution of agricultural mechanization has been well recognized in enhancing the production together with irrigation, biological and chemical inputs of high yielding seed varieties, fertilizers, pesticides and mechanical energy. Indian Green Revolution is regarded as one of the greatest achievements of the 20th century. It has been adopted in India on a large scale benefiting small, medium and large size farms. Some of its aspects such as its impact on human labour employment in a labour abundant economy have always evoked sharp responses from the policy makers. Several studies have been conducted on the impact of agricultural mechanization on production, productivity, cropping intensity, human labour employment as well as income. In the coming years, agricultural engineering has to play a major role in increasing the production and productivity, minimizing losses at production and post-production levels, creating avenues or value-adding to the agricultural produce at catchment level thereby increasing income, employment and providing high level nutrition to underprivileged masses. The land levelers, seed-cum-fertilizer drills have also been accepted by the farmers but on limited scale. Major adoption of agricultural machinery in addition to irrigation equipment and tractor, was thresher for wheat crop. Due to various applications of paddy straw, preference has been limited for paddy threshers. Self propelled / tractor operated combines, reaper harvester, potato and groundnut mechanization machinery are also commercially available and accepted by the farmers in states where tractors were introduced. Now combine harvesters are commonly used in different parts of the country, on custom hire basis, for wheat, soybean and paddy harvesting.

CHALLENGES IN AGRICULTURAL MECHANIZATION:

Land holding is going down so requirement of efficient but less costly agril. tools and equipmentsuitable for small farmers will continue to exist – whether owned or on hire. Higher economic efficiency of scale of operation may compel farmers for co-operative / contract farming. High capacity but precision equipment are needed for irrigated and dry land conditions. Planters for vegetable seeds and transplantors for vegetable nursery are of significance. Plant protection equipment – precision applicators to minimize excess application of pesticide to plants

for good environment and soil health. The area under upland rice is expected to increase where rainfall is decreasing. Thus a need for implement set-up.Commodity specific mechanization package development.

POLICY ON FARM MECHANIZATION:

There is no separate National Policy on Agricultural Mechanization. However, this aspect is covered under the agriculture policy of the National government which promotes agricultural mechanization with the following goals in mind:

1- Agricultural mechanization should lead to a sustainable increase in yields and cropping intensity with the objective of meeting the planned growth rate in agricultural production and maintaining it.

2- The income of agricultural workers should rise at a satisfactory rate so that the disparity between urban and rural incomes is contained and they get opportunity to lead a dignified life.

3- The benefits of agricultural mechanization should apply to all types of farmers including small and marginal ones in different regions of the country, particularly rain fed areas.

4- Agricultural mechanization should create a worker friendly environment especially for women workers by lessening hard labour, health hazards and improve safety in production operations.

5- Agricultural mechanization should lead to a reduced cost of production agricultural therebyincrease the income of farmers and impart a price advantage while competing for export contracts in the international market.

Mechanization of agriculture should not only be guided by the goal of higher returns to the farmers and to the Industry, but also by its contribution to the balanced agricultural development of the different regions / areas having diverse socio-economic and agro-climatic conditions.The farm mechanization has been well received world over as one of the important elements of modernization of agriculture. In India, though there has been a considerable progress of mechanization in agriculture, its spread has been in the most uneven manner. This has been a constraint at the all-round and even spread of development of agriculture in the country. Keeping in view the facts mentioned above regarding constraints in agriculture farm mechanization, a study was conducted in Etawah district with the specific objectives. 1. To study the socio-economic status of the farmers. 2. To study the constraints faced by the farmers in use of farm machinery and implements/equipments.

METHODOLOGY

The study was carried out in Etawah district of Uttar Pradesh which was selected purposively for the study in year 2014-15. To conduct the study, the multistage stratified sampling technique was adopted, in the first stage all eight blocks namely Jaswantnagar, Saifai, Basrehar, Barhpura, Takha, Bharthana, Mahewa and Chakarnagar were selected purposively. In the second stage one village from each block was selected with 100 farmers (50 Tractor Owned Farmers and 50 Bullock Owned Farmers) having extensive use of farm machinery, implements/equipment was selected purposively. The farmers who were having tractor denoted as Tractor Owned Farmers (TOF) and the farmers who were having bullocks denoted as Bullock Owned Farmers (BOF). The data were collected by interview schedule/questionnaire method and analyzed by appropriate statistical technique used viz., percentage, mean, rank order, etc.

RESULTS AND DISCUSSION

Table 1 indicates that a majority of the TOF (58.00%) belonged to general caste category and a majority of the BOF (50.00%) belonged to Schedule caste category. The standard of education was higher in TOF group as 50.00%, 42.00% for above high school and up to high school, respectively than in BOF group as 26.00% and 52.00% for above high school and up to high school, respectively. The majority of the TOF (66.00%) group and BOF (78.00%) group belonged to single family system. The maximum TOF (52.00%) group and BOF (46.00%) group were belonging sandy loam and loam type of soil. The fertility status of TOF group (48.00%) was higher than BOF group (54.00%) belonging to medium fertility status. The large size of holdings (78.00%) was found in TOF group while medium size of holdings and 44.00% was found in small land holding group. The main occupation was agriculture in both groups 66.00% TOF where as main agriculture occupation and 78.00% main agriculture occupation in BOF group. The social participation of TOF group (46.00%) was belonging to two organizations and 94.00% BOF group was belonging to one organization. In the farm inventory, Majority 68% TOF group and 52% BOF group belonging to high and medium inventory, respectively. These findings are in agreement with the findings reported by Makanga and Singh (1997).

It is obvious from **table 2** that the 'high cost of farm machinery/equipments' was the most important constraint with first rank followed by 'low investment capacity' (rank 2nd), 'small size and fragmented land holdings' (rank 3rd), 'lack of appropriate farm machinery suited to location specific'(rank 3rd), 'low risk bearings capacity'(rank 4th), 'poor credit support system' (rank 4th), 'poor availability of agricultural inputs'(rank 5th), 'lack of spare parts and service centers' (rank 5th), 'non availability of farm machinery/implements timely on custom hire' (rank 6th), 'facilities are not available for skill training' (rank 7th), 'poor extension/dissemination system' (rank 7th), 'lack of interest in rural youth as an agril. entrepreneur' (rank 8th), 'non promotion by dealers/manufacturers'(rank 9th), 'enough and easy availability of animal power for different farm operations'(rank 10th). Similar findings have been reported by Khatiwada and Sharma (1995), Kulembh (1982), Khan (1992) and Peng(1976).

CONCLUSION

Almost all the farmers are put under constraints. However, the majority of them (85 .39 %) were found to have a moderate level of constraints while > 14 % exhibited a high level of constraints. The personal constraints like low land holdings and the big family size were found to be the major. The lack of irrigation and aberrant weather conditions were the most important natural constraints. The low market prices for the farm produce during harvest period appeared to be the most important constraint for the farmers. The technical constraints comprised of the non availability of the major inputs like seeds, fertilizers, insecticides and pesticides on time. The lack of awareness of modern technology also appeared to be equally important technical constraint. The high level and a very severe stress levels were noted in case of 13.45 and 2.92 per cent farm families, respectively. **Deepali B. Ghatul (2013).** The socio-economic status of TOF group was higher than BOF group The high cost of farm machinery, implements/equipments was the main constraint followed by the small size and fragmented land holdings, lack of appropriate farm machinery, implements suited to location specific faced by the majority of farmers.

RECOMMENDATIONS

- Extension system should be strengthened for creating the awareness and popularization of improved farm machinery implements/equipments.
- Fulfill the Lack of electricity and irrigation water.
- Improve of knowledge about improved farm techniques.
- Skill training should be imparted to the rural artisans, progressive farmers having farm machinery implements/equipments.
- Credit system should be strengthened and make it easy to the farmers.
- There is a need of a strong research base in agricultural machinery implements/equipments suited to location specific conditions.

REFERENCES:

1. Khan, M.A. (1992). Farm mechanization in Rajasthan in India. *Agricultural-mechanization in Asia Africa and Latin America*, 23(1): 71-73

2. Khatiwada, M.K. and Sharma, B.C. (1995).Agricultural mechanization in Nepal: A case study in two selected districts. *Agricultural mechanization in Asia*, Africa and Latin America,26(1): 52-57.

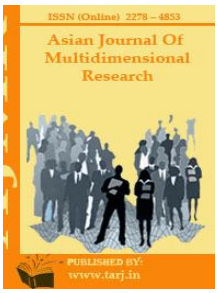
3. Makanga, J.T. and Singh G. (1997). "Status and constraints of agricultural mechanization in Kenya".*Agriculture mechanization in Asia*, Africa and Latin America, 28(3): 9.

4. Kulembh, N.G. (1982). Farm mechanization in Sierra Leone. *Agricultural mechanization In Asia*, Africa and Latin America, Spring, 13(2): 71-76.

5. Peng, T.S. (1976). Agricultural mechanization in Taiwan. *Agricultural mechanization in Asia*, Spring, 7(2): 47-59.

6. Babu Ali and MohdAbushad (2014) Agricultural inputs and production: A village level study. *Excellence International Journal Of Education And Research (Multi-subject journal)*volume 2 issue 4 ISSN 2322-0147: Page 459-472

7. Deepali B. Ghatul (2013)Constraints and stress level of farmers**.** *International Journal of Scientific and Research Publications*, Volume 3, Issue 8, August 2013 1 ISSN 2250-3153: 1-5



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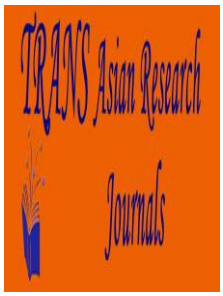

THE EVOLUTION OF LANGUAGE AND THE RISE OF ENGLISH AS A GLOBAL LANGUAGE

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ABSTRACT

In the history of human civilization and languages, human beings and languages had an inseparable relationship and simultaneous, unimaginable development in terms of civilization, communication etc as they are today. In the beginning, the significant development was the evolution of human civilization and the evolution of languages. A language is the product of human mind and it is not an invention. Man used sounds and gestures to communicate with others in the beginning and later he used so many languages. All these languages descended from one root language. There are many language families, according to historians and linguists, in this world. The languages in a family share linguistic characteristics such as sounds, words, grammatical patterns. We have thousands of languages spoken across the world and all these languages belong to language families except a few. The most prominent among the language families is Indo-European family of languages. The languages such as English, French, Spanish, Russian Hindi, Bengali etc belong to this family. These languages are spoken and used by more than 70% of the world population today. English became very popular among them and an international language in 20th century. In this globalization scenario, English is widely used and considered a global language. This paper focuses on the evolution of a language, language families, the importance of languages for communication and the rise of English as a global language.

KEYWORDS: *Communication, English, Evolution, Globalization, Global Language, Language.*

INTRODUCTION

Today, languages play a vital role in our spectacular development. A language not only aids communication, but also serves as an instrument in expressing our thoughts, feelings and ideas. A classic definition of language is simply: "language is the expression of human thought by means of words" (p.41 Lincoln Barnett's 'History of the English Language'). In fact, language

had no birth and it has been evolving constantly for ages. Every language is still passing through different stages in terms of development. There are different opinions about the origins of language. Language is not invented because it has an imperceptible, sometimes deliberate, spontaneous and evolutionary development. So the assumptions of birth and invention are not applicable to a language. It is created by a gradual process of evolution by the mind. It has become an integral part of human civilization and culture.

Language had its origins in the unpurposeful sounds of the glottis and the attempt of mind to free itself from confinement, by any method available, which was first to articulate with the sounds of the larynx and later syllables, words and sentences were formed. The fact is that the language was developed through many millennia of very gradually developing evolutionary processes. In this process, the creation of language began by the picture-thinking mind, depicting images of concrete objects which gradually developed to abstract symbol representation. Now, we have vocabulary, grammar, pronunciation, spelling and other components for every language mostly.

Comparative study and the analysis of languages explain the diverse aspects that the path of the evolution of languages has taken in order to shape or transform themselves into their present forms. There are two modes of language: spoken and written. Phonetics is the subject of study which deals with the area of pronunciation and the spoken language is related to auditory memory whereas written language is related to visual memory. So language is used both in speech and writing.

The evolution of language is closely related to the living experiences and to the ideologies of man. So it is concerned with the evolution of the cultural heritage of man, religion, civilization, literature, science and living conditions etc. These aspects should be taken into consideration in order to understand the evolution of a language. The reality of the evolution of language is a historical and spiritual entity and a medium of expression. Language is also a form of human behaviour. A hermeneutic understanding of languages embodies all the aspects of language mentioned above as well as the manifestations and profiles of human behaviour in all dimensions and levels of its past, present and predicated future, which portray an organic coherence and interdependence of cultures and civilizations.

When we go back to the primitive age, there was no language with sounds and words. It was a picture language and it was the language of undeveloped mind and consciousness. The primitive mind and primitive societies had not yet invented and developed any cultural means that gradually came into existence. Later, the human mind and consciousness gradually evolved and the invented and discovered things got their names and attributes. The language that the primitive man used was probably showing the objects and drawing images. He could have drawn them according to the image of thing in his mind and he could have thought of them in terms of components that constituted the object of his attention because he had no particular language to express it in writing. Thus the language started by drawing the object: accompanied by emotional outcry or outburst and sounds, in order to focus the attention of others to the picture of the object. The earliest mode of writing was in the form of picture drawing of the objects even before naming them. Later, the naming of the object, by short utterances or syllables and repeating the same sound to that object must have been one of the rudimentary discoveries in the spoken language. It took centuries till the symbols or alphabets were fully developed. The symbolic and the alphabetic writing revolutionized the expressions of meanings and concepts. It happened with the transition of mind from picture thinking to composite abstract thinking. Writing has evolved

along with the development of civilization and the progress towards abstract thinking. The evolutionary process of writing and language has evolved with the spiritual and cultural development of human consciousness and the mind.

It is not the words alone that make the language but it is the soul and spirit within the words throughout the cultural and historical ages and these make up the language. So language should be treated as a living organism like a human being who has body, mind and soul. Similarly, language has a soul and reality of its own in addition to the mental and grammatical significations of each word.

If there is no language, there is no communication. Similarly, if there is no communication, there is no development. In the evolutionary process, language always plays a vital role. We cannot imagine the development of mankind without a language in general and a global language in particular.

The basic structure of a language depends upon the analytic study of words, sentences and their structures. Traditionally, the structure of language has been divided into sub-disciplines which deal with a different aspect:

Phonetics: the production and perception of sounds

Phonology: the mental representation of the sounds of language

Morphology: the study of words and their forms

Syntax: the study of sentences and sentence structures

Pragmatics: the system for relating word / sentence meaning to communicative intention in the context of communication.

English, as a global language, has influenced modern world and it is being used widely for global communication. Let us discuss the spread of English language and the rise of English as a global language.

ENGLISH AND OTHER LANGUAGES

If we trace the history, man has spoken and used so many languages. But he spoke only one language in the beginning and subsequently, all other languages descended from root language. Languages of isolated primitive people were examined by scholars to find the fossil tongue, but their attempt was in vain. Due to the lack of data about the beginning of language and any study of its subsequent evolution, the scholars could not find any evidence though they made a strenuous effort in 19th century to trace the primitive man's original language. In this process, they could find some interesting things about different languages spoken by people across the world.

A language may have many dialects but these mutually intelligible dialects, even local accents, can be treated as constituting one big linguistic variety i.e. language. For instance, Swiss German, Bavarian German and Plattdeutsch (Low German) can be grouped under the heading of Germanic language. Similarly, the dialects of Canadian English, Scottish English, Australian English and even more local dialects or accents such as New York City English, Liverpool English can be grouped under English language. In the same way, several related languages constitute a language family. For example, German, Dutch, Frisian and English are the languages of West Germanic family which descended from a common parent language called Proto-West

Germanic. In human biological families, a given language family can be viewed as a part of a larger or extended family. The best example is, the Germanic family is a part of even larger family called the Indo-European language family. The members of human biological families typically share some common characteristics such as facial features, skin colour and predisposition to certain medical conditions and so on. The languages in a family share linguistic characteristics such as sounds, words, grammatical patterns etc.

There are many language families around the world, which will be discussed later in a detailed way, and the most of known languages of these families have been classified as the branch of one family or another. Some of these classifications are well-established but some are not. The languages which resist classification into known language family are like orphans because they do not have relations with that family. They are called 'isolates'. Therefore, a language is an isolate within a large family meaning that it shows no close family relationship with any other language in their family. There are examples in this regard. Modern Greek is a member of the Indo-European family but it is not closely related to any particular language in that family. Two more examples of perfect isolates are: Basque and Burushaski. Basque is spoken by 6, 50,000 people approximately in the Basque country of Spain and France and Burushaski is spoken by 87,000 people in Pakistan.

When it comes to language families, the biggest families, according to the number of individual languages, are the Niger-Congo family with over 1500 languages spoken in sub-Saharan Africa, the Austronesian language family with 1200 languages spoken in Southeast Asia, Oceania and on Madagascar etc. The Indo-European family has 450 languages approximately but it is the world's largest language family in terms of the number of speakers. More than 70% of the world's population speaks the languages of this family such as English, French, Spanish, Hindi, Portuguese, Bengali, Russian etc. One more interesting thing about this family is that it is the best-studied language family whose history as well as the histories of its individual languages is quite well-known.

At present, there are thousands of languages all over the world. It is impossible to estimate the number of these languages. Though the exact number is not available, we have American Indian languages which amount to more than a thousand, the languages of Africa close to a thousand, the island of New Guinea has approximately 700 languages, India has more than 150, Russia has 130, China has dozens and similarly the other countries. According to the recent investigation, less than hundred languages are spoken by 95 per cent of people though we have thousands of languages. These languages are disappearing because a few languages dominate this world and replace them. The reason is that the members of the rising generations abandon their mother tongue and adopt a widely-spoken language because they feel that this language is more useful than their mother tongue. So it leads to the death of minor languages. It is happening rapidly at present and we shall see the consequences in future i.e. the propagation of major languages with the help of technology.

Thus, it is impossible to establish a single protolanguage as the mother of all others but it is clear that many modern languages descended from a common ancestral language when we analyze their vocabulary and grammatical structures etc. For example, we can find similarities in groupings such as Roman, Germanic and Slavic languages. These types of groupings have turned into families. The largest family of languages is the Indo-European family because the speakers of these languages embrace more than half of the world's population.

There are independent languages which do not belong to any family. They are: Japanese, Korean and Vietnamese. Japanese and Korean may be related to each other but Vietnamese is related to Muong, a minor language of Viatnam. We have artificial languages also created in 19th and 20th centuries. These languages have been artificilly constructed. In 1887, **L.L.Zamenhof** of Poland created an artificial language named 'Esperanto' with simplified grammar and logically constructed vocabulary. The language Esperanto (means 'one who hopes') soon achieved international recognition with a large number of speakers and a significant language of literature. Many of the literary masterpieces have been translated into Esperanto. In the 20th century, two artificial languages- Occidental and Interlingua appeared but they were only for scientific and technical use. The tremendous increase in the use and study of English, after World War II, made the world believe that English has the best chance to become a universal language rather than artificial languages. Everyone knows today how English has become a global language.

Most of the European countries, with their power, made other countries across the world as their colonies. Britishers, French rulers, Spanish, Italian, Portuguese, German, Dutch, Russian etc occupied the other countries and developed their languages in their colonies. Eventually, English, French, Spanish, Russian, Japanese etc became international languages and competed with one another to become a global language. With the historical background, the colonialism of England and the hegemony of America, English has gained global status in globalization scenario today. Let us have a glance at the history of the English language and the growth of English language as it is today.

The history of the English language had begun with the arrival of three Germanic tribes in Britain in 5th century. Angles, Saxons and Jutes crossed the North Sea from the present day Denmark and the coast of NorthWest Germany and entered England where people were speaking a Celtic language at that time. The Jutes, who came from Jutland, settled in Kent and the Saxons, who came from Holstein, settled in the rest of England, in South of the Thames. Meanwhile, the Angles, who came from Schleswig, settled in the area extending northward from the Thames to Scotland and from them only, the word 'English' evolved. In fact, in Old English, the name of Angles was 'Engle' and their language was englisc. Later, four distinct dialects emerged – Northumbria, Mercian, West Saxon and Kentish. By 10th century, the dialect of West Saxon became the official language of the country. In Old English period, the influence of Latin and more or less Scandinavian on English language was evident when we examine the vocabulary of English at that time. The Norman Conquest of 1066 brought the French language to England and French became the language of the English nobility. Its impact on English was tremendous. Thousands of words were introduced into English language from French. Despite the great flood of words into English from Latin, French and other languages, the heart of the language remained as it was in Anglo-Saxon times. After 1500 A.D, Modern English had begun according to historians. But the first three centuries i.e. 1500-1800 is called Early Modern English period and after 1800 A.D, it is called Modern English period. After 1500 A.D, English language was developed by scholars by framing rules in the name of grammar and it was enriched by vocabulary taken from other languages, mostly technical terms, medical terms, words related to government, law and everyday life etc. Word-formation was also taken as a tool for the development of vocabulary. IPA is also useful for the phonetic transcription of words for proper and correct pronunciation is also remarkable today in Modern English. Therefore, there are revolutionary changes taking place even in teaching and learning process of English in schools, colleges and universities across the world. Thus, the journey of English flows like a perennial

river as far as its evolution is concerned. The origin and characteristics of English in three periods – Old English, Middle English and Modern English.

THE RISE OF ENGLISH AS A GLOBAL LANGUAGE

The spectacular advance of English across the face of the globe is a phenomenon in the history of language. When we observe it in international communication, a German tourist talking to a shopkeeper in Japan or an Asian diplomat to his counterpart in Africa and the medium of communication will certainly be English. Though the French and the Russians or Chinese may disagree, English has already become the language of global communication.

English is the principal language of the United States, Great Britain, Canada, Ireland, Australia, New Zealand and the independent countries such as the Bahamas, Jamaica, Barbados, Grenada, Trinidad and Tobago, and Guyana. It is the official language of several countries in Africa and Asia, and also numerous islands of the Caribbean, the Atlantic, Indian and Pacific Oceans. In India, it has the title of 'associated official language' and it is spoken in every part of the country. In dozens of other countries, it is treated as a second language. In fact, English is spoken by millions of people throughout the world where Chinese may compete with English but the number of people who speak and use English is much more than Chinese because English has spread to every corner of the globe but Chinese has not.

The fact is that English was an international language in 20th century but it is considered a global language in 21st century. It is the most widespread medium of international or global communication because of the number and geographical spread of its speakers and also the large number of non-native speakers who use it for their international contact. The predominance of English is the result of two periods of world domination by English speaking countries – British imperialism in the nineteenth century and the economic and technological advancement and influence of America in the twentieth century and clearly in the 21st century too. The combination of political influence and technological superiority acquired through these two successive movements has given English an advantage over other major imperial languages such as French and Spanish. The geographical restrictions of Russian and Chinese in their many forms or Arabic have made these languages less influential internationally. When we analyze the situation of language, a language which can be identified with the largest nineteenth century imperial power or with the great capitalist power of the twentieth century is inevitably perceived as an instrument of cultural and ideological domination in parts of the world where the language situation is unstable. Though English had to face a strong attack from other international languages in 20th century, they could not stand against English and prevent it to become a global language. The scenario is completely different in 21st century where a new situation is dominant i.e. globalization. This unprecedented phenomenon has not only changed the face of the world but also helped English dominate the whole world in many spheres.

Isolation is impossible and for many people, the choice is between communication and exploitation. Possession of any language leads us to communicate with groups other than our own as the world has become more and more interconnected by trade, improved communications, medical, political and cultural demands; the need for communication has inevitably increased. This has led to the emergence of one world language. Before this, there were discussions about which language should be promoted for international communication. However, English was claimed to be an international language because it had adaptable structure

which was suitable for international communication and it was phonologically more accessible than other languages. Now it has gained global status in terms of communication.

There are two factors for the popularity of English at global level: flexibility and adaptability. Grammar, syntactic structures, gender system, less inflections and the enriched vocabulary etc have made English accessible to everyone. In grammar, word classes are called parts of speech. Nouns can be used as verbs and verbs can be used as nouns in the form of gerunds. Some words can be used as both nouns and verbs. Pronouns are used as nouns in order to avoid the repetition of nouns. Adjectives are also used as nouns in English. Comparison of adjectives is also easy in English. We use only three degrees in comparison: positive, comparative and superlative. Adverbs are used in different ways i.e. they can be moved to any place in the sentence without any grammatical irregularities. Verb forms are less in number which we use in English when compared with Old English and Modern German. Auxiliary or helping verbs are used with main verbs to express different meanings in the form of statements, repetitions, questions, negative sentences etc. Case is also flexible in English. Case is nothing but the use of a noun or pronoun to show its relation to other words in the sentence. We have only two case forms: one for the nominative or objective and another one for possessive. When it comes to tenses, grammarians have simplified the rules for the flexible use of tenses. Verb forms are used in tenses to indicate the sentence whether it is in past, present or future. Through tenses, we can speak English without any difficulty. The loss of inflections in adjectives and the simplification of the inflectional forms of nouns and pronouns is also another development in grammar. If more inflections are used, it will create confusion among the learners. So the use of less inflections in English is an advantage for people to adopt it. The gender system in Old English was used without any basis. It was used not on the basis of sex and it was a confusing one at that time. But in Modern English, it is used according to sex. Words related to men are used for masculine, words related to women are for feminine and the words related to objects without any life are used for neuter gender. There are fixed rules for the structure of sentences in English and the use of syntactical structures is another asset for English language. There is no difficulty in using one sentence in different forms in one context. Thus, the grammar of English helps us speak or write in a systematic way. Pronunciation and spelling do not go hand in hand in English i.e. there is no one-to-one correspondence in English. But in Modern English, pronunciation is somewhat easy with IPA and RP. With phonetic transcription, pronunciation is not that much difficult today.

The adoption of thousands of words from other languages and their cultures has made English universal and adaptable. Vocabulary is heart of a language. Without vocabulary, we cannot imagine a language. The adaptability of English language is related to the long history of the people and their relationship with people from other cultures. English is familiar to everybody because the contribution of all world languages as well as regional languages to the growth of vocabulary is great. English has been adopted as their own language in most of the countries around the globe because they find the influence of their mother tongues on English. When we look at the growth of vocabulary, which is an asset to English, right from the beginning, Latin and Scandinavian influenced Old English vocabulary with their loans. In Middle English period, French, Latin, Greek, Spanish, Germanic and other languages contributed so many words for the wealth of English vocabulary. In Modern English period (early Modern English period also), some of Asian, European and African languages also joined this club in contributing words to English. On a larger scale, no language has borrowed words from other languages except

English. Thus, English has got universality. In this research, the flexibility and adaptability of English language is discussed comprehensively.

Globalization is a new trend in the modern world. Due to the faster transportation and communication, the world is globalized in all aspects. Globalization is a dominant political, social and economic issue of this modern world. The impact of western countries is seen in the global distribution of goods such as television programmes, cinema, media, music, food, franchises etc. We can witness the growth of international trade in the exchange of goods, services and capital across international borders and territories. Industrialization, transportation, developments in technology, outsourcing etc show a great impact on world trade. The creation of supernatural institutions such as EU, WTO, G8 and BRICS extend their activities to facilitate international agreements. Global health is also a new development today. Developed countries, with their technology, research and experiments, found different ways to get rid of dangerous diseases like AIDS, TB, Cancer, Dengue fever, Yellow fever etc. International organizations such as World Health Organization, UNICEF and Red Cross are working hard to maintain global health standards. Due to globalization, the interdependence between countries, economies and regions is also a major change. In training people for competing with global market, Globalization has brought about new changes in education. Technology helps students think and do research in a different way.

Globalization, a diverse phenomenon, has developed a multilateral world and increased the cultural objects and markets at global level. Tourism also plays a key role in international relations. Many countries are developing with tourism as their option for their economy. Multilingualism is a social phenomenon. A person's exposure to multiple languages is more frequent now due to the internet and advancement of technology in global communication. English has emerged as a global language. Information technology is also another revolution in which the information transfer or exchange takes place among individuals, organizations, and countries.

Language and communication together play a vital role in unifying the world's culture and economy with information technology and media. These are the important factors that contribute to the 21st century phenomenon called 'globalization'. There are numerous changes taking place in technology, culture, education, trade etc day by day in globalization scenario. At the same time, it is felt that there should be a global language for communication with other regions and countries. Meanwhile, English has taken the advantage and dire needs of globalization and finally it has emerged as a global language today. English is a common medium for international and intercultural communication in a global society. In fact, the political, economic and social forces have driven English forward. English has been successfully promoted and adopted by the international community so that they stand proudly in the global marketplace. Thus, the role of English in global communication is unquestionable because it is evident in all spheres.

English is seen clearly used and spoken at the summits where a number of nations participate for discussions in promoting bilateral or international relations. For instance, when the European Union, NATO, BRICS and other international organizations meet at a place, they use a common language i.e. English though they have their own languages. In this way, they promote English on international platforms. The print media and electronic media have had their impact on the people for the last four centuries. They reflect the voice of people in a democratic spirit. Most of the news papers, journals, magazines, periodicals etc are published in English worldwide. Even

in the electronic media, most of the news channels telecast news in English to reach everyone across the world.

The new technologies have spectacularly changed the face of the world particularly entertainment. Cinema is one of the technologies developed in the nineteenth century to entertain people. Hollywood is the biggest market which is in the hands of America and it occupies 85 per cent of the world market. Though Asian, European, African, Latin American countries make films in their own languages but they are not able to dominate the market of English movies. The film making of English movies is really unparallel. Such is the power of English.

Advertising is required for successful marketing of products. Global advertising is a new trade with which the products can be advertised worldwide to increase their trade and commerce. English is widely used as a tool for the spread of business activities in global advertising. International companies or multinational companies have adopted English as their medium of advertising to market their products globally. For services also, English is the preferred medium of communication. In the field of communication technology also, English is used widely in drafts, documents, codes and even conferences.

Education is a lifeline for people to improve their knowledge and understand the technologies on how to use them effectively and acts effectively as a knowledge pool. English is the medium of the world's unlimited wealth of knowledge. Another aspect is the growing use of English as a medium in the curriculum of schools, colleges and universities all over the world is the practice of the day. The knowledge of different subjects is showcased mostly in English. The dominance of English is clearly seen in international academic relations and information transfer. In science and technology also, English plays a significant role in science, technical innovation and scientific information. The so-called IT revolution in 21st century depends mostly on English. English is like a window through which one can see the whole world.

Internet plays a dominant role in this age. It has created a new dimension and horizons for global communication as a mass medium. The expansion of internet strengthens the global status of English. We exchange the information and get information through internet is done mostly in English. The use of English is reflected clearly in the application range also. Technical communication has come out because of globalization and IT revolution. In this global market, a person can be successful when he acquires not only the knowledge of the subject but also communication skills particularly in English.

CONCLUSION

There are apprehensions and doubts among scholars that the importance of English language in all domains leads to the death of other minority languages and it is a threat for other languages. In fact, English is for development but not for destruction because we need a global language to communicate with other nations internationally and English fills that gap. It means English does not cause the disappearance of other languages. We can use our own languages to communicate with local people and English for purposes of communication where local languages are not understood. There is no question of the disappearance of other languages. We have to think in a positive way about English which is a tool for global communication rather than a threat. In this research, a modest attempt is made to explore the developments in globalization scenario and the role of English in global communication is discussed in a detailed way in order to substantiate the facts about the status of English language today.

Undoubtedly, English is a global language because of the speakers of English and the wide use of English across the world and this fact proves the place of English in globalization scenario. It is evident that English has certainly positive aspects to become a global language in comparison with other international languages. The historical background, colonialism and imperialism have helped English in spreading across the world. In this research paper, it has been clearly shown that English has evolved as a global language and it will continue to be so.

REFERENCES

Barnett, Lincoln. 1966. A History of the English Language. C. Nicholls & company Ltd**.**

Bolinger, D. (1975a). Aspects of Language, 2nd edn, New York: Harcourt Brace Jovanovich.

Burchfield, Robert. 1994. The Cambridge History of the English Language. Cambridge: Cambridge University Press.

Chomsky, Noam. 1986. Knowledge of Language: its nature, origin and use. New York: Praeget.

Crystal, D. 1987. The Cambridge Encyclopaedia of Language, Cambridge: Cambridge University Press.

----------. 1997. English as a Global Language. Cambridge: Cambridge University Press.

Eric de Grolier. 1983. The Origin and Evolution of Language. Harwood Academic Publishers, Amsterdam.

Katzner, Kenneth. 1977. The Languages of the World. Routledge & Kegan Paul.

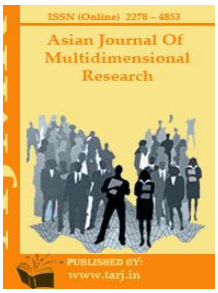
Keyan, Rostam. 1978. The Evolution of Language. Philosophical Library, New York.

Lieberman, Philip. 1984. The Biology and Evolution of Language. Harvard University Press Cambridge, Massachusetts & London, England.

Pereltsvaig, Asya. 2012. Languages of the World: An introduction. Cambridge: Cambridge University Press.

Stross, Brian.1976. The Origin and Evolution of Language. Wm.C. Brown Company Publishers

Swadesh, Morris. 1972. The Origin and Diversification of Language. Routledge & Kegan Paul, London.



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FARMER'S OPINION ON TRAINING PROGRAMME ORGANIZED BY KRISHI VIGYAN KENDRA, ETAWAH (UP)

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ABSTRACT

District Etawah is a part of alluvial tract but its physical features vary considerably determined by the rivers across it. On the basis of natural characteristics, district Etawah is divided in three natural group's viz. Pachar, Ghar and Par. The present study Farmer's opinion on training programme organized by Krishi Vigyan Kendra, Etawah (UP) was conducted in purposively selected KVK, Etawah of Uttar Pradesh. This KVK is functioning under the jurisdiction of C.S. Azad University of Agriculture & Technology, Kanpur. The beneficiaries were selected randomly for this study there were two hundred beneficiaries selected from KVK, who attended the training. The data were collected with the help of pre-tested interview schedule. The statistical methods adopted were percentage to assess the background profile & opinion of beneficiaries, mean to assess the source of information of beneficiaries. Results shows that 97.50 percentage trainees received information of training programmes through Farmers & farm women / Rural youths (on/off) training and 94.50 percentage trainees receive information of training programmes through contact with Field Day farmers followed by 92.00 percentage trainees received information of training During Front Line Demonstration (FLD)/ On Farm Trails (OFT) and Farm Science Club meeting (Chandra Shekhar Krishak Samity and Krishi Vigyan Krishak Samity, Etawah), respectively. Majority of the respondents (98.50%) learn new techniques through Scientist lecture in Farm science club an d SHGs meetings and crop cafeteria at KVK instructional farm, (94.50%) respondents learn new techniques through Scientists-Farmers interaction during farmers training programmes followed by The respondents

(91.50%) learn new techniques through discussion during FLD/OFT on farmer's field, 90.50 percent respondents learn new techniques through scientist lecture in small meeting & Scientist Visit in Village/Farmers fields, respectively.

KEYWORDS: *Case Study, Beneficiaries, Opinion, Training, Farm Science Club, Functionaries Training And Audio, Visual Aids.*

INTRODUCTION:

District Etawah is a part of alluvial tract but its physical features vary considerably determined by the rivers across it. On the basis of natural characteristics, district Etawah is divided in three natural group's viz. Pachar, Ghar and Par. In 1- Pachar Region (Bharthana & Takha) Northern portion of district Etawah is separated by river Senger, called pachar. It presents a level expansion of upland surface broken by sandy ridges of three rivers, Pandu, Arind and Rind and its tributaries i.e. Ahneya and Puraha. Soil is fertile and loam, clay or loamy clay in nature with ussar patchs. Jhils are also present in this part. 2- Ghar region (Jaswant Nagar, Safai, Maheva and Basrehar)- This is situated Between river Senger and Yamuna. Soils of this area are light red, fertile and sandy. Clays loam soils are also visible with ussar patchs. In this part ground rises into hillocks of sand and bhur. Most of the cultivable area is irrigated with lower Ganga canal and its branches. Area is less density populated and village sites are smaller than Pachar. 3- Par Patti Region (Chakarnagar and Barhpura)- This area is situated between Yamuna and Chambal is called par. Soils of this area are sandy, loam, loamy sand, clay and loam clay. Clay is full of holes and fissures like black soil of Bundelkhand. White sandy Kachhar soils are also visible on the bank of Yamuna. Jamunapari goat and Bhadawari buffaloes are prime genetic natural resource of this area. Opinion of beneficiaries is a crucial factor for analyzing the performance of any training programme. Hence, the attempt has been made here to study the opinion of the beneficiaries regarding different aspects of training programmes, i.e., physical aspects, training facilities, course content, time and duration, evaluation and supporting activities along with their background profile and source of information regarding training programmes. In this context, a study was conducted with specific objectives as: 1. Source of information of beneficiaries, 2. Effectiveness of training methods and 3. Opinion of beneficiaries regarding training programme.

METHODOLOGY

The present study Farmer's opinion on training programme organized by Krishi Vigyan Kendra, Etawah (UP) was conducted in purposively selected KVK, Etawah of Uttar Pradesh. This KVK is functioning under the jurisdiction of C.S. Azad University of Agriculture & Technology, Kanpur. The beneficiaries were selected randomly for this study there were two hundred beneficiaries selected from KVK, who attended the training. The data were collected with the help of pre-tested interview schedule. The statistical methods adopted were percentage to assess the background profile & opinion of beneficiaries, mean to assess the source of information of beneficiaries

RESULTS AND DISCUSSION

1. SOURCE OF INFORMATION OF BENEFICIARIES

Table 1 shows that 97.50 percentage trainees received information of training programmes through Farmers & farm women / Rural youths (on/off) training and 94.50 percentage trainees

receive information of training programmes through contact with Field Day farmers followed by 92.00 percentage trainees received information of training During Front Line Demonstration (FLD)/ On Farm Trails (OFT) and Farm Science Club meeting (Chandra Shekhar Krishak Samity and Krishi Vigyan Krishak Samity, Etawah), 89.50 per cent trainees receive information of training programmes through Scientists' visit to farmers field, 86.50 per cent trainees receive information of training programmes through Scientists-Farmers interaction trainings, 82.50 per cent trainees receive information of training programmes through Mobile Advisory Services, 80.50 per cent trainees receive information of training programmes through Extension functionaries training through contact with Progressive farmers/ Line department personals), 76.00 per cent trainees receive information of training programmes through Diagnostic visit Scientist to farmers field and Farmers visit to KVK, 73.50 per cent trainees receive information of training programmes through Lecture delivered by KVK Scientist in Line department training programme, 72.00 per cent Sponsored Training carried out by KVK, 70.00 per cent Kisan Ghosthi, 66.50 per cent Kisan Mela, 65.50 percent Film Show, 65.00 percent News paper coverage and 62.50 per cent trainees receive information of training programmes through Books/Literature, Extension folder etc., respectively.

TABLE 2: EFFECTIVENESS OF TRAINING METHODS

It is evident from data presented in the **table-2** that majority of the respondents (98.50%) learn new techniques through Scientist lecture in Farm science club an d SHGs meetings and crop cafeteria at KVK instructional farm, (94.50%) respondents learn new techniques through Scientists-Farmers interaction during farmers training programmes followed by The respondents (91.50%) learn new techniques through discussion during FLD/OFT on farmer's field, 90.50 percent respondents learn new techniques through scientist lecture in small meeting & Scientist Visit in Village/Farmers fields, 89.50 percent respondents learn new techniques through farmers visit at KVK, 86.50 percent respondents learn new techniques through scientist lecture in Gosthi, 83.00 percent respondents learn new techniques through Scientist lecture in Kisan Mela, 79.50 percent respondents learn new techniques through Case study, 77.50 percent respondents learn new techniques through Audio-Visual Aids (Projector, Film show and Audio) and 71.50 percent respondents learn new techniques through Leaflet, Folder and Magazine etc., respectively.

3. OPINION OF BENEFICIARIES REGARDING TRAINING PROGRAMME

Table 3 reveals that most of the beneficiaries in KVK, Etawah high level of opinion about physical facilities (88.00%), training facilities (86.50 %) and evaluation and supporting activities (86.00%). Regarding time and duration their opinion was of medium level (15.50%) while for time and duration also most of them had low level of opinion (13.00%). The above findings are in conformity with the findings Sharma and Pandey.(2002), Masur and Ashalatha (2001), Sharma (2003) and Singh et al.(2003).

CONCLUSION

Results shows that 97.50 percentage trainees received information of training programmes through Farmers & farm women / Rural youths (on/off) training and 94.50 percentage trainees receive information of training programmes through contact with Field Day farmers followed by 92.00 percentage trainees received information of training During Front Line Demonstration (FLD)/ On Farm Trails (OFT) and Farm Science Club meeting (Chandra Shekhar Krishak Samity and Krishi Vigyan Krishak Samity, Etawah), respectively. Majority of the respondents (98.50%) learn new techniques through Scientist lecture in Farm science club an d SHGs

meetings and crop cafeteria at KVK instructional farm, (94.50%) respondents learn new techniques through Scientists-Farmers interaction during farmers training programmes followed by The respondents (91.50%) learn new techniques through discussion during FLD/OFT on farmer's field, 90.50 percent respondents learn new techniques through scientist lecture in small meeting & Scientist Visit in Village/Farmers fields, respectively. Most of the beneficiaries in KVK, Etawah high level of opinion about physical facilities (88.00%), training facilities (86.50 %) and evaluation and supporting activities (86.00%). Regarding time and duration their opinion was of medium level (15.50%) while for time and duration also most of them had low level of opinion (13.00%).

REFERENCES

Masur, S.B. and Ashalatha, K.V. (2001). K.V.K. training for farm women : an analytical study. *Karnataka J. Agril. Sci.,* **14**(3) : 839-842.

Jha, R.K.; Sharma, G.R. and Pandey, R.K. (2002). Appropriateness of training for rural youth. *Ind. J. Extn Edn.,* **38**(3&4) : 214-216.

Sharma, P. (2003). Extent of satisfaction of women trainees regarding training courses organized by Krishi Vigyan Kendras of Punjab. *Raj. J. Extn. Edn.,* **11** : 107-108.

Singh, H.C.; Kushwaha, R.K. and Prakash, V. (2003). Opinion of Extension personnel and farmers towards transfer of technology programmes. *Farm Sci. Journal,* **12**(2) : 154-156.

H. P. Singh, Durga Singh, P.S. Naruka and B.S. Gupta (2012). Effectiveness of Training Techniques Methods Use in Training Programme of Krishi Vigyan Kendra, Mandsaur, Madhya Pradesh. *Indian Research Journal of Extension Education*. Special Issue (Volume **I**), January, 2012: 1-7.

RESULTS AND DISCUSSION

TABLE 1: 2. SOURCE OF INFORMATION OF THE RESPONDENT (N=200)

Sl. No.	Source of information	No.	Percentage	Rank
1.	Scientists' visit to farmers field	179	89.50	IV
2.	Mobile Advisory Services	165	82.50	VI
3.	Farm Science Club meeting (Chandra Shekhar Krishak Samity and Krishi Vigyan Krishak Samity, Etawah)	184	92.00	III
4.	Extension functionaries training (Through contact with Progressive farmers/ Line department personals)	161	80.50	VII
5.	Farmers & farm women / Rural youths (on/off) training	195	97.50	I
6.	Diagnostic visit Scientist to farmers field and Farmers visit to KVK	152	76.00	VIII
7.	Lecture delivered by KVK Scientist in Line department training programme	147	73.50	IX
8.	Front Line Demonstration (FLD)/ On Farm Trails (OFT)	184	92.00	III
9.	Sponsored Training carried out by KVK	144	72.00	X
10.	Field Day	189	94.50	II

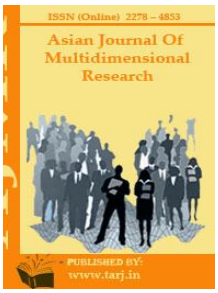
11.	Scientists-Farmers interaction trainings	173	86.50	V
12.	Kisan Mela	133	66.50	XII
13.	Kisan Ghosthi	140	70.00	XI
14.	Film Show	131	65.50	XIII
15.	News paper coverage	130	65.00	XIV
16.	Books/Literature, Extension folder etc.	125	62.50	XV

TABLE 2: EFFECTIVENESS OF TRAINING METHODS (N=200)

Sl. No.	Training Methods	No.	Percentage	Rank
1.	FLD/OFT on farmer's field	183	91.50	III
2.	Case study	159	79.50	VIII
3.	Audio-Visual Aids (Projector, Film show and Audio)	155	77.50	IX
4.	Scientist lecture in Farm science club an d SHGs meetings	197	98.50	I
5.	Scientists-Farmers interaction	188	94.50	II
6.	Scientist lecture in small meeting	181	90.50	IV
7.	Scientist lecture in Gosthi	173	86.50	VI
8.	Scientist lecture in Kisan Mela	166	83.00	VII
9.	Scientist Visit in Village/Farmers fields	181	90.50	IV
10.	Farmers visit at KVK	179	89.50	V
11.	Leaflet, Folder and Magazine etc.	143	71.50	X
12.	Crop cafeteria at KVK	197	98.50	I

TABLE3. OPINION OF THE BENEFICIARIES REGARDING TRAINING PROGRAMMES OF KRISHI VIGYAN KENDRA, ETAWAH (N = 200)

Sl. No.	Training aspects	Opinion of beneficiaries (Percentage)		
		High (3)	Medium (2)	Low (1)
1.	Physical facilities	176 (88.00%)	12 (6.00%)	12 (6.00%)
2.	Training facilities	173 (86.50 %)	19 (9.50 %)	08 (4.00%)
3.	Course contents	167 (83.50 %)	28 (14.00%)	05 (2.50%)
4.	Time and duration	143 (71.50%)	31 (15.50%)	26 (13.00%)
5.	Evaluation and supporting activities	172 (86.00%)	18 (9.00%)	10 (5.00%)
6.	Overall usefulness of training programme	162 (81.00 %)	27(13.50%)	11 (5.5.%)



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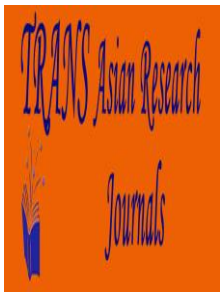

LANGUAGE AND GLOBALIZATION: ENGLISH AS A GLOBAL LANGUAGE

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ABSTRACT

Undoubtedly, the modern world is more globalized than ever before. Many changes were seen in 20th and 21st centuries predominantly in global trade, transport, culture, technology, medicine, education etc. This unprecedented change is called 'globalization'. There is a profound impact on languages also. As far as languages are concerned, there are approximately 150 languages that have gained importance because 95% of mankind speaks these languages today. This is another change in this globalization scenario. In 20th century, English became an international language. By the end of 20th century, English attained global status because the modern world required a global language to connect regions, countries and continents for global communication. English was used as a tool for communicating with one another. The history of English language and its characteristics, the colonialism of Britain and the imperialism of America today are the driving forces for the spread of English language across the world.
This paper explains about the language groups, the trends of globalization, the importance of a global language and English as a global language in a comprehensive manner.

KEYWORDS: *communication, dominance, English, globalization, impact, language, technology, trends.*

INTRODUCTION:

Today's world is economically and culturally more globalized than ever before due to faster and more reliable means of transportation and communication which have facilitated greater human traffic and the exchange of large volumes of information and goods. This evolution has also led to increased mutual cultural influences across national and regional boundaries. This phenomenal and unprecedented change is called 'Globalization' and the dominant political, social and economic issue of the modern era is, undoubtedly, globalization. In fact, globalization can be considered or examined in terms of economic, political and cultural domains. In the economic domain, the emergence of a borderless global economy and market, which is not similar from the

one existing a hundred years ago, is evident in terms of transnational flows of capital and trade. Political factors also feature in the debates on globalization. The growth of transnational organizations and networks means that governance increasingly transcends national boundaries.

The history of globalization refers to globalizing events and developments from 1600A.D to 1800 A.D. That period is regarded as early modern globalization or proto-globalization. In the 19th century, globalization was shaped by the then imperialism and it got its modern form as a result of the industrial revolution. In the late 19th century and the early 20th century, many changes were conspicuous in terms of global trade, transport, education and culture. The world's economies and cultures grew very quickly, but slowed down during the First World War and picked up in 1980s. In the early 2000s, we witnessed most of the developed countries and developing countries entered into the recession and later recovered gradually. The term "globalization" has quickly become one of the most fashionable buzz words of contemporary political and academic debate because of political, economic and cultural trends today. In popular discourse, globalization is a synonym for one or more of the following phenomena: the pursuit of liberal policies in the world economy, the growing dominance of western countries in political, economic and cultural life, the proliferation of new information technologies (The Internet Revolution) as well as the idea that humanity stands at the threshold of realizing of one single unified community called global integration. The importance of a global language to connect this world, the rise of English as a global language and the wide use of English around the world are discussed thoroughly in this paper.

LANGUAGE AND GLOBALIZATION

The human species is divided into some 6,000 groups and each one of them speaks a different language and does not understand one another. But this fragmentation is overcome by people who speak more than one language and thus ensure communication between different groups. Accordingly, a language system consists of a set of language groups and all being connected to one another through the mediation of multilingual speakers. Such multilingual connections between language groups constitute a surprisingly efficient and strongly ordered hierarchical network, which ties together the 7 billion inhabitants of the earth now at the global level-directly or indirectly.

The majority of the languages in today's world survive marginally within the global language system. These languages are peripheral languages-spoken by less than 10 percent of mankind. There may be some 150 languages that occupy the central or planetary position in the global language system. They are spoken by 95 percent of mankind. These c**e**ntral languages are used in education, media, on the radio and television. They are also used in bureaucracy, courts and parliament. They are national languages and such a language constitutes the official language of the state that rules the area. Each central language has a standard version regulated by a standardized grammar, syntax, vocabulary, orthography and pronunciation. The speakers of peripheral languages acquire the central language. In fact everywhere in the world the number of bilinguals is on the increase as a result of the spread of education, communication, media and the internet. Native speakers of a central language tend to acquire a second language which is usually more widely spread and higher up in the hierarchy. At this level, each cluster of central language groups is connected, through multilingual speakers, to a very widespread language group, which occupies a supra central position within the system. The supra central language serves the purpose of international communication. There are about a dozen of these Arabic,

Chinese, English, French, German, Hindi, Japanese, Malay, Portuguese, Russian, Spanish and Turkish. English is used by more than 2 billions of people and next is Mandarin Chinese with 1 billion users. Later, one that connects the supra central languages with one another and therefore constitutes the pivot of the world language system. This hyper central language, which holds together the entire constellation, is, of course, English, in the hub of the linguistic galaxy. English is only likely to gain many more speakers in the next decades on account of the dynamics of language spread. Choosing the larger language like English will just improve career prospects and open up a larger world with broader knowledge, a more varied culture and a greater diversity of life styles and moral options.

In 20th century, English has become the hyper central language of the world language system. Though there are languages with more speakers such as Mandarin, Hindi etc, English remains the central one. This has nothing to do with the intrinsic characteristics of the English language but it is a consequence of the particular history of the English speaking nations. Even the hegemonic position of the US declines, English will continue to be the hub of the world language system in future because so many millions of people have invested so much in learning it and for that very reason many millions of other language speakers will continue to use it. In this world, every non-Anglophone would be bilingual, with English as the additional language, and Anglophones could satisfy their communicative as well as their identity needs through their native tongue alone. English is doubtlessly the predominant world language and a few other languages also have a global reach, which their speakers experience when they travel around the world and communicate their individuals other than emigrants or expatriates. It is possible with languages like French or German for over a hundred years and other languages like Spanish, Japanese and Chinese in recent times. Now the attention is on the plurality of world languages and it requires an adequate conceptual specification which allows for ranks or degrees of global reach of languages. For this purpose, it is useful to distinguish 'global function' from 'global status' and again from factors that influence global function. For example, Spanish is not very different from English in global status, being spread over three or four continents and over twenty one centuries, in which it is the both official language and the native language of the majority of the population, but is clearly less predominant in global function. It also trails English considerably in factors that influence global function, for instance in the economic strength of its speakers – a respect in which Spanish amounts to only about a fourth of what English amounts to, if one measures the two in terms of Gross Domestic Product of all their respective native speakers. In fact, the concept of 'world language' is clearly based on its global function which means 'use for global communication".

At this juncture, a discussion on global language and the need of global language for this modern world is required. In fact, a language can be considered a global language when it is spoken and used widely in every country. It is evident in countries where most of the people speak a language as their mother tongue and in some countries where most of the people speak and use that language as second language after their mother tongue. In short, a language has to be taken up or adopted by all countries across the world and then only that language achieves global status. Those countries must decide whether to give a special status to that language or not in their communities though they have different mother tongues. There are two ways, according to **David Crystal,** by which it can be done. Firstly, a language should be made the official language of a country and used as a medium of communication in such domains as government, law courts, media and education. Such a language is described as a second language because it is

seen as a complement to a person's mother tongue or first language. Secondly, a language can be made a priority in a country's foreign language teaching even though this language has no official status. This language should be taught in schools for children and also it should be available for adults. For instance, Russian got this status for many years and Mandarin Chinese now continues to play an important role in South East Asia but English is now the language most widely taught as a foreign language in over 100 countries such as Russia, China, Germany, Spain, Brazil and in most of these countries, it has emerged as the chief foreign language often replacing other languages in this process. In 1996, English replaced French as the chief foreign language in Algerian schools. Even in Arabic countries, English is taught at school level as well as university level and above all, English is the most demanding language. We have first language, official language and foreign language speakers but it is inevitable that a global language will come to be used by more people than any other language. For example, English has reached this stage with more than 2 billion speakers around the world. No other language can match this growth. It is astonishing that 1.2 to 1.5 billion people were fluent and competent in English in 1990s and it is a different story now.

One more interesting point is that a language dominates the whole world because it is not only the political power of the nation but also the economically powerful nation that can maintain and expand it. A politically powerful nation can establish it but not expand it. But it was different in 20th century with economic developments beginning to operate on a global scale, supported by new technologies – telephone, radio and telegraph – and encouraging the emergence of multinational organizations. The growth of industry and business brought a revolution in international marketing and advertising. The power of press reached great heights and later surpassed by the broadcasting media and now the internet. The progress in science and technology created an intellectual and research environment at international level. Any language at the center of such explosion finds itself with a global status. In 19th century, Britain had become the world's leading industrial and trading country and British political imperialism had sent English around the globe. In 20th and 21st centuries, with American economic supremacy and military power, English was spread to every nook and corner. Undoubtedly, English has found itself in the explosion mentioned above.

The necessity of a global language in the modern world is inevitable. In communities where there are many languages in contact, particularly in Africa and Asia, a common language or a lingua franca is required to make them understand each other. Even it is helpful for them in trade. In 20th century, the strong desire for a lingua franca for the whole world emerged strongly. Particularly after 1950, multinational, regional or political groupings such as the Common Wealth and the European Union came into being. The pressure to adopt a lingua franca or a common language, to facilitate communication, was considered. Even many international bodies such as the World Bank, UNESCO and UNICEF, WHO, IAEA and others found a great difficulty in communication with countries across the world. Though they had different international languages to communicate, they chose English for communication.

The need for a global language is recognized by the international academic and business communities and the adoption of a single lingua franca is evident both in lecture rooms and in board rooms as well as in thousands of individual contacts being made daily all over the world. The growth in international contacts is the result of two separate developments. The physicists would not talk to each other conveniently without the technology of modern communication. The business contacts would be unable to meet so easily in Singapore or somewhere without the

technology of air transportation. The availability of these facilities in 20th century provided the circumstances needed for a global language to grow. What has been so impressive about the developments which have been taken place since the 1950s is that they have affected every country in the world and so many countries have come to be involved. Before this, there are no precedents in human history for what happens to languages, in such circumstances of rapid change. In fact, long ago there was no time for nations to talk to each other and for people to travel to different places. So there was no need for a language at global level for communication. But in 20th and 21st centuries, we had a different atmosphere. When the recent developments affected the nations, they had to find a common language or a lingua franca for global communication. Of course, English was chosen later as a global language.

ENGLISH AS A GLOBAL LANGUAGE

There is a question "Why should English be considered a global language?" There are two aspects which give answer to this question- one is historical and the other one is socio-cultural. In historical context, the movement of English around the world started with the pioneering voyages to the Americas, Asia and the Antipodes. In 19th century, the expansion of English continued with colonial developments in Asia and Africa and in mid twentieth century, English was adopted as an official or semi-official language by many newly independent nations. Now English is represented in every continent and major islands. The spread of this representation makes the application of the label 'global language' a reality. In socio-cultural context, people all over the world have come to depend on English in many walks of life. English has penetrated deeply into the international domains of political life, business, communication, entertainment, the media and education. The convenience of having a lingua franca 'English' is to serve global human relations. English functions as a gate keeper to positions of prestige in a society. In many educational systems around the world, English has become the most powerful medium. For education, employment or social positions, English is essential. English in the Philippines gives evidence of the connections between English and the social and economic power of elites. In post-colonial Africa, social class may be distinguished more clearly along linguistic than economic lines. Predominantly, there were two colonial languages - English and French. In the modern world, English is used mainly rather than French in Africa. In India, **Pattanayak** (1969) observes, "English serves as the distinguishing factor for those in executive authority, no matter how low the level is, and acts as a convenient shield against the effective participation of the mass of the people in the government process" (P.43). The spread of English in the political, educational, social and economic life of a country is clearly the result of both the historical legacy of colonialism and the varying success of countries since independence to ward off the threats of neo-colonialism. China and Malaysia reverted to more pro-English policies in the 1980s.

In pre-twentieth century, there was a political answer to the question "Why world English?" The answer was simply the growth of the British Empire. **Isaac Pitman**, for example, had his observations in "English as the language of future" (P.67): "The British Empire covers nearly a third of the earth's surface and British subjects are nearly a fourth of the population of the world". It is evident that the influence of Britain was a desirable goal, anywhere in the world, and that the English language was an essential means of achieving this end.

Most of the innovations of the industrial revolution were of British origin: the harnessing of coal, water and steam to drive heavy machinery, the development of new materials, equipment for

manufacturing industries, the emergence of new means of transportation and the drastic development in textiles and mining. These changes led Britain to a different status at international level and Britain was called "The workshop of the world". The linguistic consequences of these achievements were far reaching. The new terminology of science and technology had an immediate impact on the language, adding tens of thousands of words to the English lexicon. In fact, these innovations were from an English speaking country and people, who wished to learn about them, would need to learn English. By the end of 20th century, America had overtaken Britain as the world's fastest growing economy. As the innovations made their impact on America, the amount of expository material in the English language increased dramatically.

The early 19th century had seen the rapid growth of the international banking system, especially in Germany, Britain and the USA. The resulting 'economic imperialism' brought a fresh dimension to the balance of linguistic power."Access to knowledge" became "Access to knowledge about how to get financial backing". If the metaphor 'money talks' had any meaning at all, those were the days when it was shouting loudly and the language was English. During this period, English was the language as a primary or sole means of expression. English was the natural choice for progress and there was no competition from other languages. As the twentieth century progressed, English had become the dominant language of global politics and economy. After First World War, the cultural legacies of the colonial era and the technological revolution were felt on an international scale. English emerged as a medium of communication in growth areas which would gradually shape the character of twentieth century domestic and professional life.

The League of Nations gave a special place to English in its proceedings. English plays an official role in the proceedings of many other international political gatherings such as the Association of South East Asian Nations (ASEAN), the Common Wealth, the Council of Europe, the European Union and the North Atlantic Treaty Organization (NATO). English is the only official language of the Organization of Petroleum Exporting Countries (OPEC) though Arabic speaking states are the members of that organization. Even Arabic states have recognized the value of English and they may not use English in proceedings but English is used in the reports they issue and in the statements which their officials make to the world media. According to the Union of International Associations' year book, there were about 12,500 international organizations in the world. 85 per cent of these organizations made official use of English- far more than any other language. This reliance is evident now in Asia and the Pacific where about 90 per cent of international bodies carry on their proceedings entirely in English. Several international sporting organizations work only in English such as the African Hockey Federation, the Asian Amateur Athletic Association and the Association of Oceania National Olympic Committees. English is used as the sole official language when these organizations hold international competitions. International politics operates at several levels and in different ways, but the presence of English is essential.

The media play a vital role in international politics. Now the media are at the centre of everyone's life- the press, advertising, radio, television and the internet. English is an important medium of the press. Since 17th century, English has been playing a dominant role in news papers, magazines and journals. The Journal Linguistics Abstracts reviews the content of some 160 linguistics journals worldwide: nearly 70 per cent of them are published in English. In the physical sciences, 80 per cent are published in English. Similarly, periodicals, magazines,

pamphlets, digests etc are published in English widely. By the end of the 19th century, social and economic factors led to a dramatic increase in the use of advertisements and in publications especially in the more industrialized countries. Two-thirds of a modern news paper, especially in the USA, may be devoted to advertising. English in advertising began very early on, when the weekly news papers began to carry items about books, medicine, tea and other domestic products. Posters, bill boards, electric displays, shop signs and other techniques became part of the everyday scene. As international markets grew, the media began to travel the world and their prominence virtually in every town and city is now one of the most noticeable global manifestations of English language use. Even in countries where English has no special status but the English advertisements are usually the most noticeable. The official language of international advertising bodies is invariably English.

English was the first language to be transmitted by radio in the USA in the year 1906. In Britain, experimental broadcasts were made in 1919 and the British Broadcasting Company (New Corporation) was established in 1922. During the early 1920s, English language broadcasting began in Canada, Australia and New Zealand. In 1927, the Indian Broadcasting Company had stations in Bombay and Calcutta. There are also several important regional organizations depending upon English language. When it comes to BBC, the world service of BBC, launched in 1932, broadcast 1000 hours per week to a worldwide audience of 140 million in over 40 countries by 1996 – nearly a third in English. Recently the USA rapidly overtook Britain, becoming the leading provider of English services abroad. Most other countries showed sharp increases in external broadcasting during the post war years and several launched English language radio programmes such as the Soviet Union, Italy, Japan, Germany, Sweden etc. However, when we list the languages in which these countries broadcast, it is evident that the chief language is English. After the discovery of electrical power, the new technologies altered the nature of home and public entertainment and gave fresh directions for the development of English language. After the First World War, European film industry had less growth and dominance soon passed to America. The emergence of the feature film, the star system and the grand studio had a base in Hollywood, California. When sound was added in 1920s, it was the English language which came to dominate the movie world. Despite the growth of the film industry in other countries later, English language movies still dominate the medium with Hollywood. It is unusual to find a blockbuster movie produced in a language other than English. The Oscar system has always been English language oriented and there is a strong English language presence in most other film festivals too. The fact is that most of the movies are made in English language and the USA control 85 per cent of the world film market.

When we see the two new entertainment technologies emerged at the end of the 19th century, the first one is cinema industry and the second one is recording industry. Here English was in evidence. Most of the technical developments, with regard to recording industry, took place in America. Phonograph, gramophone records, long playing disk were introduced by America. All the major recording companies in popular music had English language origins. Radio sets around the world testify the dominance of English in popular music scene today. Many people make their first contact with English in this way. The dominance of English is a twentieth century phenomenon though the role of English in this genre starts much earlier. When modern popular music arrived, it was almost entirely an English scene. Historically, English has been closely tied to Britain cultural forms and later to the cultures of an expanded circle of English-speaking countries. In fact, the connections between English and various forms of culture and knowledge

are readily localizable. English is closely connected to the global spread of popular culture through music and films. In international academic relations, the predominance of English has profound consequences. A large number of textbooks in the world are published in English and designed for both English-speaking market and international market.

The reasons are many for travelling abroad and to different places. They may be routine business trips, annual holidays, religious pilgrimages, sports competitions etc. In the tourist spots of the world, the signs in the shop windows, restaurant menus, credit card facilities etc are most noticeably in English. For those whose international travel brings them into a world of package holidays, business meetings, academic conferences, international conventions, sporting occasions, military occupations and other official gatherings, the domains of transportation and accommodation are mediated through the use of English as an auxiliary language. In this way, the trend towards English has been especially noticeable.

English has come to be used as a means of controlling international transport operations, especially on water and in the air. The language has long been recognized as the international language of the sea and in recent years there have been attempts to refine its use to make it as efficient as possible. In 1980, a project was set up to produce Essential English for International Maritime Use - often called 'seaspeak'. The official use of English as the language of international aircraft control did not emerge until after the Second World War. In 1944, Allied leaders had a conference on the post war global civil aviation system, creating the International Civil Aviation Organization. Later, they agreed that English should be the international language of aviation. There was no obvious chance for a lingua franca. As a matter of fact, the leaders of the Allies, the major aircraft manufacturers and the post war pilots were English speaking. Over 180 nations have adopted the recommendations of the International Civil Aviation Organization (ICAO) about English terminology.

English is the medium of a great deal of the world's knowledge particularly in science and technology. In recent years, English has been made an official language and it has been chosen as a chief foreign language in schools. South African writer **Harry Mashabela** says, "Learning and using English will not only give us the much needed unifying chord but will also land us into the exciting world of ideas; it will enable us to keep company with kings in the world of ideas and also make it possible for us to share the experiences of our own brothers in the world……". Since 1960, English has become the normal medium of instruction in higher education for many countries – including where the language has no official status. The English language teaching (ELT) business has become one of the major growth industries around the world in the past thirty years. In 1995-96, more than 4, 00,000 candidates worldwide sat English language examinations administered by The British Council. At any one time during that year, there were 1, 20,000 students learning English and other skills through the medium of English in Council teaching centers. With thousands of other schools and centers worldwide devoted to English language teaching, the Council has estimated that there will be a drastic change in the number of people learning English in the near future. A particular growth is seen in Central and Eastern countries of former Soviet Union, China and other eastern countries are now learning English. Today, scientific periodicals, medical papers and other papers are being published in English. Even in linguistics, 1500 papers were published in 1995 in "Linguistics Abstracts" were in English. In computer science, the proportion is even higher.

There are connections between the spread of English and the issues in global relations**. Ndebele** (1987, P.4) suggests that 'the spread of English went parallel with the spread of the culture of international business and technological standardization'. English has been taken as the language of international capitalism. It is clear that the promotion of English across the world brings real economic and political advantages to the promoters of that spread. Indeed **Phillipson** concludes that "it has been the policy of British and American governments since the mid - 1950s to establish English as a universal second language", so as to protect and promote capitalist interests.

The world's everyday communication is actually in English. The estimation is that three quarters of the world's mail is in English. It is evident on the internet. Though there are no precise calculations, English is used for global correspondence, scientists mostly use English and several international associations use English. Another example is that 80 per cent of the world's electronically stored information is currently in English. There are two kinds of data: information stored privately by individual firms and organizations and information made available through internet, whether for sending and receiving electronic mail, providing and accessing databases and data pages. English continues to be the chief lingua franca of the internet- a position which is now beginning to be acknowledged in the popular media. In postal, telegraphic and other electronic net works, English is widely used.

In the seventeenth and eighteenth centuries, English was the language of Britain. In 19th century, it was the language of the leader of the industrial revolution – also Britain. In the late nineteenth century and the early twentieth century, it was the language of the leading economic power – the USA. When new technologies brought new linguistic opportunities, English emerged as a first rank language in industries which affected all aspects of society- the press, advertising, broadcasting, media, transport, communication etc. During the first half of the twentieth century, English gradually became a leading language of international political, academic and community meetings. In fact, two events have together ensured its global status. The first one was the movement towards political independence, out of which English emerged as a language with special status in several new countries. The second was the electronic revolution, where English was in the right place at the right time. Undoubtedly, English will influence the world more than ever before.

REFERENCES:

Appadurai, A. (1996) Modernity at large: Cultural Dimensions of Globalization. Minneapolis: University of Minnesota Press.

Bolton, W.F., A living language: The history and structure of English (New York: Random House, 1982).

Crystal, D. (1997) English as a Global Language. Cambridge: Cambridge University Press.

Fairclough, N. (2006) Language and Globalization. London: Routledge.

Giddens, A. (2002) Runaway World: How Globalization Is Shaping Our Lives. London: Profile Books.

Graddol, D. (1997) The Future of English? London: British Council.

Hannerz, U. (1992) Cultural Complexity: Studies in the Social Organization of Meaning. New York: Columbia University Press.

Held, D., Mc Grew, A.G., Goldblatt, D., and Perraton, J. (1999) Global Transformations: Politics, Economics and Culture. Cambridge: Polity.

Isaac Pitman, English as the language of future (p.67).

Jenkins, J. (2007) English as a Lingua Franca: Attitudes and Identity. Oxford: Oxford University Press.

Kachru, B.B. (1986) The Alchemy of English. Oxford: Pergamon Press.

Mufwene, S.S. (2008) Language Evolution: Contact, Competition and Change. London: Continuum.

Ndebele, NS, 1987, The English language and social change in South Africa, The English Academy Review 4: 1-16.

Pattanayak, D.P. (1969), Aspects of applied linguistics, London: Asia Publishing House.

Pattanayak, D.P. (1981) Multilingualism and Mother Tongue Education. Bombay: Oxford University Press.

Pennycook, A. (2007) Global Englishes and Trans cultural Flows. London: Routledge.

Phillipson, R. (1992) Linguistic Imperialism. Oxford: Oxford University Press.

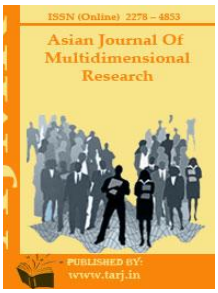
Richard W.Bailey, Images of English. Cambridge: Cambridge University Press.

Robertson, R. (1992) Globalization: Social Theory and Global Culture. London: Sage.

Sidney Greenbaum (ed), The English Language Today. Oxford: Pergamon, 1985.

Smith, L.E. and Rafiqzad, K. (1983). English for cross-cultural communication: the question of intelligibility. In L. Smith (ed.) Readings in English as an International Language (pp. 49-58). Oxford: Pergamon.

Tomlinson, J. (1999) Globalization and Culture. Chicago: University of Chicago Press.



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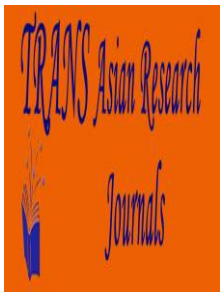

CHARACTERISING THE AIR-WATER CARBON DIOXIDE EXCHANGE IN THE AQUACULTURE PONDS OF EAST KOLKATA WETLANDS - A RAMSAR SITE

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ABSTRACT

Air-water CO_2 Flux (F_{aw}) was measured from the point of pCO_2 (water) and pCO_2 (air) in the aquacultural ponds of East Kolkata Wetlands in three respective seasons ie, pre-monsoon, monsoon and post-monsoon. Gas Transfer Velocity was found to be 5.1 cm h^{-1}, 4.8 cm h^{-1}, 4.5 cm h^{-1} in the three seasons respectively. pCO_2 (air) ranged between 391.5µatm to 398.2 µatm and pCO_2 (water) varied from 567.0 µatm to 2086.0 µatm throughout the study period. Total Alkalinity was observed to be the main controlling factor for exchange of CO_2 between the atmosphere and water. The area was found to behave as a source for carbon dioxide during the study period showing the maximum efflux rate in pre-monsoon, 1266.78 ± 1004.74 µmol m^{-2} h^{-1} and minimum in post-monsoon, 619.0 ± 300.04 µmol m^{-2} h^{-1}.

KEYWORDS: *Air-Water CO2 Exchanges, Carbonate Chemistry, Total Alkalinity, Wetland Ecosystem.*

1. INTRODUCTION

Wetlands are broadly defined as habitats which experience periods of hydrological inundation where the water table lies above or close to the soil surface or within the rooting zone of plants, for a significant part of the year (Saunders et al., 2013). These wetland ecosystems, which have been a major sink for atmospheric carbon since the last de-glaciation, may therefore greatly alter the level of atmospheric carbon in the future because of modified productivity and decomposition rates (Hirota et al., 2006).

Recently around the world the large wetland areas have been converted to aquacultural ponds due to huge population expansion and economic benefit (Cao et al., 2011). Aquacultural ponds receive more nutrients due to aquaculture activities with respect to natural wetlands (Serrano-Grijalva et al., 2011). Excess nutrients encourage the pond primary production and thus the microbial processes which directly or indirectly affect the carbon biogeochemical processes.

Ponds of shallower depth are the important contributors of carbon dioxide (CO_2) and other green house gases like methane (CH_4), nitrous oxide (N_2O) to the atmosphere. According to Mosier (1998), CO_2 contributes up to 60% to the global warming. The global atmospheric concentration of CO_2 is approximately 390.5 ppm and this has been increasing steadily over the past century by approximately by 0.50% per year (IPCC, 2013).

Recent research explores that freshwater environments can emit 1.2-2.1 Pg of C (CO_2 equiv.) $year^{-1}$ as CO_2 (Aufdenkampe et al., 2011) and 0.65 Pg of C (CO_2 equiv.) $year^{-1}$ in the form of CH_4 (Bastviken et al., 2011) i.e., more than 2 Pg of C (CO_2equiv.) $year^{-1}$ in total. Globally freshwater aquatic systems play an important role in biogeochemical cycle and considered as significant sources of greenhouse gases (Natchimuthu et al., 2014). Therefore greenhouse gas emission from aquatic ecosystem is now becoming the center of discussion because of their important role in global warming phenomenon. Now here we are discussing whether a wetland ecosystem may act as a source or sink of carbon as carbon dioxide as it is one of the most important GHGs.

The East Kolkata Wetlands (EKW), the biggest urban wetland ecosystem in India, has become a sink for the untreated wastewater from the entire Kolkata area including the municipal sewage and small and large scale industries adjoining the area (Mandal et al., 2015). EKW is a classical example of harnessing natural resources of the wetland system for fisheries and agriculture through ingenuity of local communities with their traditional knowledge (Chaudhuri et al., 2012). EKW was designated as 'wetland of international importance' under 'Ramsar convention' on 19th August, 2002 and as 'Ramsar site' in November, 2002(http://ramsar.rgis.ch/pdf/sitelist.pdf).

2. REVIEW OF LITERATURE

TABLE 1. PRINCIPAL FINDINGS OF CO_2 FLUX BASED STUDIES IN THE INLAND WATERS CARRIED OUT THROUGHOUT THE WORLD

Authors	Places	Findings
Smith et al.,(1983)	Barataria Basin, (Area: salt marsh: 5.4×10^5sq. m., brackish marsh: 4.1×10^5sq. m., fresh marsh: 7.0×10^5sq. m.), Louisiana	Annual CO_2 fluxes: 418.0 gCm^{-2} (salt marsh) 180.0 gCm-2 (brackish marsh) 618.0 gCm^{-2} (freshwater marsh)
Hamilton et al.,(1994)	Hudson Bay Lowlands, Ontario	Mean CO_2 Emission: (3700-11,000) mg $CO_2m^{-2}d^{-1}$
Hamilton et al.,(1995)	Pantanal floodplain, Brazil	Overall mean CO_2 Emission: 0.34 nmol $cm^{-2}s^{-1}$
Semiletov et al.,(1996)	Yakutian Lowland, Russia	p_{CO2} values ranges: (400-6000) ppm (Tiksi sites) (4000-20,000) ppm (Chersky sites) up to 27,000 ppm(bottom layer of thaw lakes)
Striegl and Michmerhuizen(1998)	Williams Lake(Area:3.7×10^5sq.m.) and Shingobee Lake(Area: 6.5×10^5sq.m.), Minnesota	Annual CO_2Emission: 8.0 mol$CO_2m^{-2}yr^{-1}$ (Shingobee Lake)

Casper et al.,(2000)	Freshwater lake of Priest Pot, U.K.	Average CO_2 flux: 40mmol $m^{-2}d^{-1}$
Huttunen et al.,(2002)	Jänkäläisenlampi Pond(peat land pond) and Kotsamolampi Pond (forest pond) (Area:~1.0×10^4sq.m.), Finland	Mean CO_2 efflux: 22.0 mg $m^{-2}h^{-1}$ (peat land dominant catchment) 0.7mg $m^{-2}h^{-1}$ (forested dominant catchment)
Richey et al.,(2002)	Amazonian rivers and wetlands	
Eugster et al.,(2003)	Toolik Lake(Area: 1.5×10^6sq.m.) , Alaska & Soppensee (Area: 2.5×10^5sq.m.), Switzerland	Net CO_2 flux: 289±153 mg $Cm^{-2}d^{-1}$ (Soppensee) 114±33mg $Cm^{-2}d^{-1}$(Toolik Lake)
Song et al.,(2003)	Swamps of two types, continuous inundated and seasonal inundated, in Sanjiang Plain, China	Mean CO_2 flux: 548.04mg $m^{-2}h^{-1}$(continuously inundated swamps) 713.08 mg $m^{-2}h^{-1}$ (seasonal inundated swamps)
Larmola et al.,(2004)	5 boreal freshwater lakes (3 of them shallow upstream lakes- Lake Mekrijarvi, Lake Kevaton and Lake Postilampi and remaining two bays of large downstream lakes- Lake Heposelka and Lake Pyhaselka), Eastern Finland	Littoral CO2 flux: Ranges from 0.9 to 7.5 $molm^{-2}winter^{-1}$
Teiter and Mander (2005)	Constructed wetlands (Area: 3.6×10^3 sq.m. and 5.5×10^3 sq.m.) & riparian buffer zones, S. Estonia	Average CO_2 flux: 55–61 mgCO_2-C m^{-2} h^{-1} 140–291 mgCO_2-$Cm^{-2}h^{-1}$(Vertical Sub Surface Flowbeds)
Xing et al., (2005)	Lake Donghu (Area:2.79×10^9sq.m.), China	Average CO_2 flux: 332.3±160.1mg m^{-2} d-1 Annual Carbon budget across air-water interface: $7.52\pm4.07\times10^8$ g
Hirota et al.,(2007)	Two fringing sites- sandy shore and salt marsh, Lake Nakaumi, Japan	CO_2 flux variation: Sandy Shore: (14.0-75.0)mg CO_2 m^{-2} h^{-1} Salt Marsh: (-320 to -23)mg CO_2 m^{-2} h^{-1}
Poissant et al.,(2007)	Cornwall Area of Concern, St, Lawrance River, Quebec	CO2 ebullitive flux: 0.39mg $m^{-2}h^{-1}$
Repo et al.,(2007)	Small wetland lakes and ponds in the middle taiga and forest tundra zones (Area: 2.3×105 and West Siberian Lowlands (WSL)	Mean CO_2 flux: 0.5 g $m^{-2}d^{-1}$ (Middle Taiga Lake) 1.6 g $m^{-2}d^{-1}$ (Middle Taiga Pond) 1.5 g $m^{-2}d^{-1}$ (Forest Tundra Lake)
Gupta et	Chilka Lake (Area: 1.16×10^9	Net CO_2 fluxes:

al.,(2008)	sq.m.), India	141 mmolCm^{-2} d^{-1} (monsoon period) 9.8 mmolC m^{-2} d^{-1} (premonsoon period)
Torgersen and Branco (2008)	Mirror Lake (Area: 2.0×10^{5} sq.m.), California	Net annual CO_2 fluxes: 80 mmol CO2 m^{-2} d^{-1}(2002) 86 mmol CO_2 m^{-2} d^{-1} (2003)
Gleason et al.,(2009)	16 seasonal wetland catchments, Stutsman County, North Dakota	Seasonal mean CO_2 flux: 44,573.2±3305.3 g C ha^{-1}day^{-1} (Grassland) 42,555.3±3305.3 g C ha^{-1}day^{-1} (Cropland)
Teodoru et al.,(2010)	Eastmain-1 Reservoir (including matured forest, riverbed, non-forest soil, burned forest, lake, wetland) (Area: 6.0×10^{8} sq.m.), Northern Quebec, Canada	Total surface CO_2 flux: 4406.4 mg C m^{-2}d^{-1} (2006) 2395.9 mg C m^{-2}d^{-1} (2007) 1333.3 mg C m^{-2}d^{-1} (2008)
Zhu et al.,(2010)	Lake *Mochou* and Lake *Tuanjie*, east Antarctica	The mean CO_2 flux: −70.8 mgCO_2 m^{-2} h^{-1} (littoral zone of Lake Mochou) −36.9 mgCO_2 m^{-2} h^{-1} (littoral zone of Lake Tuanjie)
Riera et al.,(2011)	Two clear-water lakes and two bog lakes, N. Wisconsin, U.S.A.	Seasonal CO_2 fluxes: 6.7 and 10.0 mol·m^{-2} (in two bog lakes) 1.2 and 0.09 mol·m^{-2} (in two clear-water lakes)
Muduli et al.,(2012)	ChilkaLagoon(Area:7.04×10^{8} sq.m.),Orissa, India	Air-water CO_2 flux: 31.2 mol C m^{-2} y^{-1} (entire lagoon) 65.98 mol C m^{-2} y^{-1} (northern sector) 17.61 mol C m^{-2} y^{-1} (outer channel) 15.69 mol C m^{-2} y^{-1} (central sector) 14.44 mol C m^{-2} y^{-1} (southern sector)
Beringer et al.,(2013)	Fog Dam Wetland (Area: 1.56×10^{7}sq.m.), Darwin, Australia	Annual Net Ecosystem Production: +1129.4±70.4 gCO_2 m^{-2}yr^{-1}
Linto et al.,(2013)	Mangrove associated waters (Area: 2.7× 10^{9} sq.m.), Andaman Islands, Bay of Bengal	Mean CO_2 emissions: ~23–173mmol m^{-2} day^{-1}(tidal creek)
Crawford et al.,(2014)	Five small streams, Northern Highlands Lake District, U.S.	CO_2 emission: 23.4 Gg C yr^{-1}(from the streams) 0.49 mol CO_2m^{-2}day^{-1}(from the lakes at regional scale)
Bass et al.,(2014)	Tropical wetland, Northern Australia	CO_2 flux: 1 99.4 mg CO_2 -C m^{-2} h^{-1}(open water areas) 86.0 mg CO_2 -C m^{-2} h^{-1} (whole wetland avg.)

Gou et al.,(2014)	Xihu desert wetland National Nature Reserve, Dunhuang	Mean CO_2 emission: 0.11mgm^{-2}s^{-1}
Natchimuthu et al.,(2014)	A small shallow pond(Area:1.2×10^{3}sq.m.), Linko¨ping, Sweden	Mean CO_2 flux: 1.1±6.9 mmol m^{-2} day^{-1}
Borges et al.,(2015)	African inland waters	Air- water CO_2 flux: Ranges between 186±9 and 1,149±53mmolm^{-2} d^{-1} (African River System)
Crawford et al.,(2015)	Andrews Creek and Glacier Gorge Catchments, Colorado, USA	Average CO_2 flux: -4.67 mmol CO_2m^{-2} d^{-1}(lake surface) Annual CO_2 flux: -8.01 mmol CO_2m^{-2} yr^{-1}(catchment area)
Geldern et al.,(2015)	Wiesent River and its tributaries, Bavaria, Germany	Average CO_2 flux: 450 mmolm^{-2} day^{-1} with higher fluxes up to 5680 mmolm^{-2} day^{-1}
Ruiz-Halpern et al.,(2015)	Richmond River Estuary (Water Area: 1.9 ×10^{7}sq.m. and Catchment Area: 6.85×10^9 sq.m.), New South Wales, Australia	Air-water CO_2 flux (mean) : 252 mmol C m^{-2} d^{-1}
Holgerson (2015)	Six temporary ponds (Area: ≤ 1.0×10^4 sq. m.), Yale Myers Forest, Connecticut, USA	Mean CO_2 concentration: 360.6(±15.2 SE) µmol L^{-1}
Lohila et al.,(2015)	Boreal lake (Area: 1.05×108sq.m.), Pallasjärvi, Finland	30-min average of CO_2 flux: (-0.02 to 0.05) mgm^{-2}s^{-1} Seasonal CO_2 flux: 120.0g m^{-2}yr^{-1}
Mammarella et al.,(2015)	Lake Kuivajärvi (Area: 6.3×10^{5}sq.m.), Southern Finland	Average CO_2 flux: 0.7 µmolm^{-2}s^{-1}
Marín-Muniz et al.,(2015)	EsteroDulce , Laguna Chica and Boquilla de Oro-three freshwater marshes(FM) and freshwater swamps(FS), Veracruz, Mexico	Range of CO_2 emission: (0.5-18.0) g C-CO_2 m^{-2}d^{-1}
Robin et al.,(2015)	ChilkaLagoon(Area:7.04×10^8 sq.m.),Orissa, India	Air-water CO_2 flux: 714mm m^{-2}d^{-1}
Yang et al.,(2015)	A shrimp pond and a mixed aquaculture pond, Shanyutan wetland(Area: 3.12×10^{7}sq.m.), MinRiver estuary, southeastern China	Average CO_2 flux: 20.78mgCO_2m^{-2}h^{-1} (for the shrimp pond) -60.46mgCO_2m^{-2}h^{-1} (for mixed aquaculture pond)
Zhong et al.,(2015)	A reclaimed coastal wetland, Dongtan, Chongming Island, China	Annual CO_2 flux: -558.4gCm^{-2}year^{-1}

3. SIGNIFICANCE OF THE STUDY

The Ramsar Convention includes all lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peatlands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans. Managing wetlands is a global challenge and the Convention presently counts over 160 countries as Contracting Parties, which recognize the value of having one international treaty dedicated to a single ecosystem.

Wetlands cover 6% of the world's land surface and contain about 12% of the global carbon pool, playing an important role in the global carbon cycle. Climate predictions requires a complete account of natural and anthropogenic greenhouse-gas (GHG) fluxes, especially for CO_2, CH_4 and N_2O ,which together accounted for 94% of the anthropogenic global radiative forcing by well-mixed GHGs in 2011 relative to 1750 (Borges et al.,2015). Inland waters (streams, rivers, lakes and reservoirs) are increasingly recognized as important sources of GHGs to the atmosphere, with global CO_2 and CH_4 emissions estimated at 2.1 Pg C yr^{-1} (Raymond et al.,2013) and 0.7 Pg C yr^{-1} (CO_2-equivalents) (Bastviken et al., 2011) respectively.

In case of EKW, it is the biggest urban wetland ecosystem (Ramsar site no. 1208) in India (Aich et al, 2012) and perhaps the oldest integrated resource recovery practice of the world which based on a combination of agriculture and aquaculture practices. The EKW is unique for its wise use of sewage water, mainly for fish cultivation and irrigation for garbage farming. This system supports the recycling of the wastewater as well as the fish cultivation. Most of these research works were focused on the pollution load, heavy metal contamination from point and non-point sources, nutrient dynamics and fish well-being in the wetland system. However, monitoring the air-water CO_2 flux in such a delicate and crucial ecosystem is hardly reported. Hence the present study is quite significant as it is supposed to reveal the character of the wetland in terms of source or sink of CO_2.

4. OBJECTIVES AND HYPOTHESIS

The principal objectives of the present study are enumerated below:

(a) To estimate the biogeochemical parameters along with the air-water carbon dioxide dynamics in some selected aqua-culture ponds of the East Kolkata Wetlands.

(b) To study the seasonal variability of the biogeochemical parameters and the air-water carbon dioxide fluxes.

(c) To identify or assess the relationship between the varying physico-chemical as well as carbonate chemistry parameters with that of air-water CO_2 flux in the corresponding study sites.

5. METHODOLOGY

5.1 SELECTION OF THE STUDY SITES

A reconnaissance survey was conducted in the EKW and the aquaculture ponds were selected for the present study. The GPS locations of the ponds are tabulated in Table 2.

FIGURE 1: Location of East Kolkata Wetlands

TABLE 2. THE GPS LOCATION OF THE SAMPLING SITES

Sampling Sites	GPS Locations
WP1	22°33′16.26″N 88°24′47.34″E
WP2	22°31′49.95″N 88°25′58.30″E
WP3	22°31′42.16″N 88°26′43.21″E
WP4	22°30′39.07″N 88°29′28.50″E

5.2 ANALYTICAL PROTOCOL

In order to carry out and fulfill all the objectives of the present dissertation work successfully, the parameters were measured. The mean and the ranges of the measured parameters were taken in all the four sites every time. pH and surface water temperature were measured using Orion PerpHecT ROSS Combination pH Micro Electrode along with a pH meter (data logger). Salinity was measured by Multi Kit (WTW Multi 340 waset, Probe: WTW Tetracon325, Merck, Germany). Total alkalinity (Talk) was measured by Automated Titrator (Potentiometric titrando, Metrohm, Switzerland. Chlorophyll-a and nutrients were measured using standard methods (Parsons et al., 1992) and Winkler's Titrimetric Method was used to determine dissolved oxygen (DO). Turbidity was measured by Turbidity meter (TN 100, Eutech Instrument) and under water Photosynthetically Active Radiation (PAR) was measured by Sensor (UWQ 8247, Li-Cor, USA) and Data Logger (Li-250A, Li-Cor, USA). CO_2 concentration in water was calculated using the software CO2SYS.EXE. (Lewis and Wallace, 1998). CO_2 concentration in the ambient air was measured by Non-Dispersive Infra Red (NDIR) Sensor (LI-840, Li-Cor, USA). Wind Velocity was measured by Weather Station (WS-2350, La Crosse Technology) and Solar Radiation was measured by Lux Meter (LX-105, Leutron).

6. RESULTS AND DISCUSSION

Table 3 shows the mean as well as range of physico-chemical and carbonate chemistry parameters in the pre-monsoon, monsoon and post-monsoon season respectively. The lowest water temperature was found in post-monsoon (21.9 ± 0.7) and highest in monsoon (34.0 ± 1.3) in ^{0}C. Salinity gives us an idea about the quantitative magnitude of total dissolved solids in an aquatic medium. Here salinity never showed any significant variation during study. The pH

(8.462 ± 0.271) as well as Talk (4312 ± 545) in µmol/kg was found to be maximum in pre-monsoon followed by the post-monsoon and monsoon season. Hence the pCO_2 (water) (in µatm) was found to be highest in the pre-monsoon season. Although the water temperature difference in between pre-monsoon and monsoon season was not so significant, the pCO_2 (water) values were far from one another because here Talk predominates over temperature being the main controlling factor.

TABLE 3: THE MEAN ± SD AS WELL AS THE RANGE (MINIMUM - MAXIMUM) OF PHYSICO-CHEMICAL AND CARBONATE CHEMISTRY PARAMETERS IN THE PRE-MONSOON, MONSOON AND POST-MONSOON SEASON

Parameters	Pre-Monsoon	Monsoon	Post-Monsoon
pH (in NBS Scale)	8.462 ± 0.271 (8.101 - 8.757)	8.346 ± 0.116 (8.157 - 8.440)	8.402 ± 0.141 (8.224 - 8.517)
Salinity (psu)	0.4 ± 0.2 (0.3- 0.7)	0.2 ± 0.01 (0.2 - 0.3)	0.3 ± 0.2 (0.1 - 0.7)
Water Temperature (°C)	34.0 ± 0.9 (33.1- 35.5)	34.0 ± 1.3 (32.7 - 35.7)	21.9 ± 0.7 (21.1 - 22.8)
Dissolved Oxygen (mg/l)	6.35 ± 0.87 (5.98 – 6.84)	7.11 ± 0.58 (6.87 – 7.98)	7.21 ± 0.39 (6.78 – 7.69)
Chlorophyll-a (mg m^{-3})	26.4 ± 3.2 (25.1 – 28.3)	32.4 ± 3.6 (28.3 – 32.8)	31.4 ± 2.5 (28.7 – 33.9)
Talk (µmol/kg)	4312.0 ± 545.0 (3522.0 – 4920.0)	2759.0 ± 128.6 (2601.0 – 2911.0)	3502.6 ± 926.9 (2403.7 - 4555.1)
pCO_2 (water) (µatm)	1226.0 ± 656.5 (567.0 – 2086.0)	834.0 ± 75.1 (769.0 – 961.0)	853.9 ± 222.6 (660.0 - 1165.6)
Under Water PAR (µmol $m^{-2}h^{-1}$)	4.01 ± 1.30 (2.41 - 5.59)	3.94 ± 3.42 (1.50 - 9.02)	2.43 ± 1.86 (0.28 - 4.56)
Turbidity (NTU)	66.6 ± 26.9 (33.2 – 89.0)	76.6 ± 7.8 (68.0 – 89.0)	71.4 ± 38.9 (33.1 – 106.0)
pCO_2 (air) (µatm)	397.7 ± 0.3 (397.5 - 398.2)	392.1 ± 0.4 (391.5- 392.6)	395.0 ± 0.4 (394.5 - 395.6)
Gas Transfer Velocity (cm h^{-1})	5.1	4.8	4.5
Flux (µmol$m^{-2}h^{-1}$)	1266.78 ± 1004.74 (258.90 - 2584.02)	636.34 ± 107.79 (544.08 - 818.39)	619.0 ± 300.04 (358.0 - 1039.0)

Now in between monsoon and post-monsoon, pH was found to be higher in post-monsoon season and it was expected to find a lower pCO_2 (water) value because the temperature was lesser then with respect to the monsoon season. But here also Total Alkalinity plays the crucial role; it was 3502.6 ± 926.9 µmol/kg and 2759.0 ± 128.6 µmol/kg in post-monsoon and monsoon respectively. So pCO_2 (water) was found to be higher in post-monsoon, 853.9 ± 222.6 µatm than monsoon, 834.0 ± 75.1 µatm as it is the cumulation of pH, water temperature and Total Alkalinity. Wind Speed was found to be (0 -5) m/s always during sampling. Flux (F_{aw}) was found to be highest in pre-monsoon as usual but it was a little greater in monsoon, 636.34 ± 107.79 µmol$m^{-2}h^{-1}$ than in post-monsoon, 619.0 ± 300.04µmol$m^{-2}h^{-1}$because F_{aw} is the product

of the difference between pCO_2(water) and pCO_2(air), Gas Transfer Velocity (k) and CO_2 solubility coefficient (β) .

Table 4 shows that among the three vital nutrients nitrate and phosphate was found to be in greater concentration in monsoon (Nitrate: 0.81 ± 0.30 mg/l and Phosphate: 1.63 ± 0.15 mg/l) followed by post-monsoon and pre-monsoon season. The aquaculture ponds of EKW are sewage-fed and the city sewage mainly contain the domestic effluent along with others type of effluent. Domestic sewage contains phosphate which comes from detergent which is added to the fisheries by run off during monsoon. So this is justified as in monsoon season surface run off increases which adds more soil particles, pesticides, herbicides, heavy metals, salts, and nutrients such as nitrogen and phosphorus in those aquacultural ponds although the values were not so significantly different with respect to the post-monsoon. This also justifies the Chlorophyll a and dissolved oxygen content of the ponds in the respective seasons.

Natural waters contain silicon because of the dissolution of silicate minerals with which they come in contact. For example, silicon dioxide reacts in water to form silisic acid, a weak acid that is largely unionized within the pH range of most natural waters (Boyd, 2014). Silicate concentration was maximum in pre-monsoon, 8.58 ± 1.83 mg/l. Silicate is mainly accumulated by diatoms to build up their frustules which may be the cause being least in monsoon season, 5.82 ±0.51 mg/l.

TABLE 4: THE MEAN ± SD AS WELL AS THE RANGE (MINIMUM - MAXIMUM) OF NUTRIENT CONCENTRATIONS IN THE PRE-MONSOON, MONSOON AND POST-MONSOON SEASON

Nutrients	Pre-monsoon	Monsoon	Post-monsoon
Nitrate (mg/l)	0.67 ± 0.01 (0.66 - 0.69)	0.81 ± 0.30 (0.50 - 1.10)	0.77 ± 0.01 (0.75 - 0.78)
Phosphate (mg/l)	0.96 ± 0.69 (0.32 - 1.75)	1.63 ± 0.15 (1.43 - 1.81)	1.62 ± 0.11 (1.51 - 1.75)
Ammonium (mg/l)	0.06 ± 0.04 (0.01 - 0.10)	0.08 ± 0.01 (0.07 - 0.10)	0.08 ± 0.02 (0.06 - 0.10)
Iron (mg/l)	0.59 ± 0.20 (0.35 - 0.86)	0.52 ± 0.04 (0.47 - 0.58)	0.59 ± 0.01 (0.58 - 0.62)
Silicate (mg/l)	8.58 ± 1.83 (6.62 - 11.12)	5.82 ± 0.51 (5.26 - 6.62)	7.55 ± 0.25 (7.25 - 7.87)

Iron occurs in Earth's crust but its solubility in water is negligible. But ferric iron reacts with major anions in water to form soluble ion pairs and complexes, and combines with dissolved organic matter to form soluble iron chelates. These combined forms of iron greatly increase the iron concentration in water and can be used by plants (Boyd, 2008).

The main sources of ammonia are the excretion of the fishes and diffusion from the pond sediment itself. Fecal solids and dead algae decomposition process produces ammonia which diffuses from the sediment bottom into the water and produces ammonium (NH_4^+) ion after protonation. Here ammonium concentration was found to be very little (0.01-0.10 mg/l throughout the season) may be due to the nitrification process by which ammonia is transformed into nitrite (NO_2^-) and later nitrate (NO_3^-)by microbial activity (https://www.ysi.com/File%20Library/Documents/Application%20Notes/A585Understanding-

Ammonia-in-Aquaculture-Ponds.pdf). Agricultural run-off which carries fertilizers, pesticides is also an important source of nitrate.

Figure 2: Relationship between pCO_2 and **(a)** Water Temperature **(b)** Salinity **(c)** pH **(d)** T_{alk}

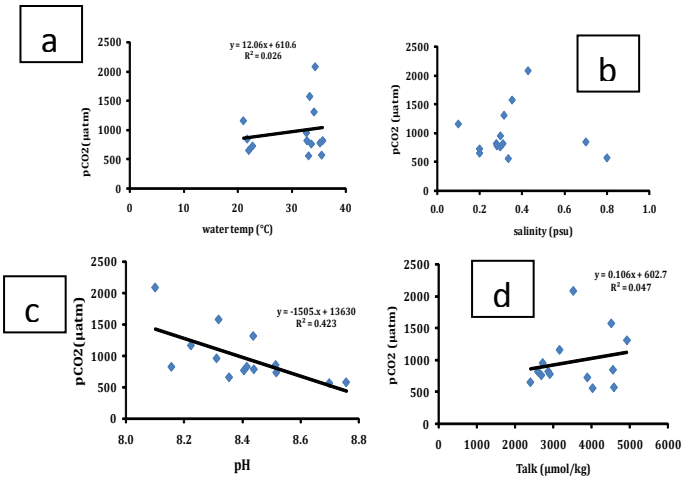

Figure 3: Relationship between **(a)** CO_2 Flux and pCO_2 **(b)** T_{alk} and Salinity

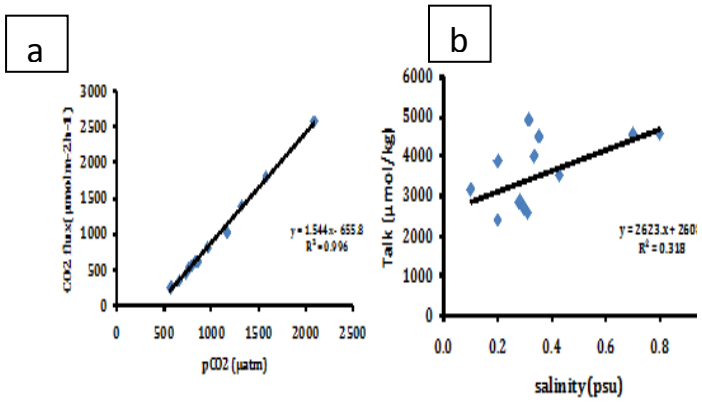

Fig2 (a) shows not a significant relation in between pCO_2 and water temperature because here always total alkalinity predominates over temperature. Similarly there is nothing notable dependence of pCO_2 over salinity [Fig 2(b)]. The aquaculture ponds here are mainly of fresh-watered and salinity was found to be less than 1 psu throughout the whole study period. Fig 2(d) explains the relation between pCO_2 and T_{alk} which shows a positive correlation between them. A pronounced negative correlation was established in between pCO_2 and pH [Fig 2(c)] as with decreasing pH, the concentration of H^+ ion increases which forms bicarbonate (HCO_3^-) ion and ultimately shifts the equilibrium to form more gaseous CO_2.

Fig 3(a) shows a sharp positive correlation between CO_2 flux and pCO_2 (water) as the ultimate flux would be determined by the partial pressure of CO_2 in water. Fig 3(b) also shows a positive correlation with T_{alk} and salinity as salinity gives nothing but the quantitative magnitude of total dissolved solids in an aquatic medium which also consider the total amount of titrable bases present in the water.

7. CONCLUSION

The study reveals the seasonal variability of the biogeochemical parameters and the air-water carbon dioxide dynamics and also the relationship between the varying physico-chemical as well as carbonate chemistry parameters with that of air-water CO_2 flux in the mentioned study sites. The four study sites in EKW was found to be the net source for CO_2 with an average efflux rate of 1266.78 ± 1004.74, 636.34 ± 107.79 and 619.0 ± 300.04 µmol $m^{-2}h^{-1}$ in pre-monsoon, monsoon and post-monsoon season respectively. No previous dataset from EKW related to pCO_2 dynamics and its exchange with the atmosphere is available in the literature. Hence, it is quite difficult to compare the findings with any observations from the past.

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REFERENCES

Aich A, Chakraborty A, Sudarshan M, Chattopadhyay B, Mukhopadhyay SK, (2012) Study of trace metals in Indian major carp species from wastewater-fed fishponds of East Calcutta Wetlands, Aquaculture Research, Volume43, pp53-65.DOI:10.1111/j.1365-2109.2011.02800.x.

Aufdenkampe AK, Mayorga E, Raymond PA, Melack JM, Doney SC, Alin SR, Aalto RE, Yoo K, (2011) Riverine coupling of biogeochemical cycles between land, oceans, and atmosphere, Frontiers in Ecology and the Environment, Volume 9, Issue 1, pp 53–60. DOI: 10.1890/100014.

Bass AM, Grady DO, Leblanc M, Tweed S, Nelson PN, Bird MI, (2014) Carbon Dioxide and Methane Emissions from a Wet-Dry Tropical Floodplain in Northern Australia, Wetlands, Volume 34, Issue 3, pp 61 9-627.

Bastviken D, Tranvik LJ, Downing JA, Crill PM, Enrich-Prast A, (2011) Freshwater methane emissions offset the continental carbon sink, Science, Volume 331, No. 6013, p.50. DOI: 10.1126/science.1196808.

Beringer J, Livesley SJ, Randle J, Hutley LB, (2013) Carbon dioxide fluxes dominate the greenhouse gas exchanges of a seasonal wetland in the wet–dry tropics of northern Australia, Agricultural and Forest Meteorology, Volume 182– 183, pp 239– 247.

Borges AV, Darchambeau F, Teodoru CR, Marwick TR, Tamooh F, Geeraert N, Omengo FO, Guérin F, Lambert T, Morana C, Okuku E, Bouillon S, (2015) Globally significant green - house-gas emissions from African inland waters, Nature geosciences. DOI: 10.1038/NGEO2486.

Boyd CE, (2008) Iron Important To Pond Water, Bottom Quality, Sustainable Aquaculture Practices, Global Aquaculture advocate, pp59-60.

Boyd CE, (2014) Silicons, Diatoms In Aquaculture, Sustainable Aquaculture Practices, Global Aquaculture Advocate, pp38-39.

Cao L, Diana JS, Keoleian GA, Lai QM, (2011) Life Cycle Assessment of Chinese Shrimp Farming Systems Targeted for Export and Domestic Sales, Environmental Science & Technology, Volume 45, Issue 15, pp 6531-6538. DOI: 10.1021/es104058z.

Casper P, Maberly SC, Hall GH, Finlay BJ, (2000) Fluxes of methane and carbon dioxide from a small productive lake to the atmosphere, Biogeochemistry, Volume 49, pp 1–19.

Chaudhuri SR, Mukherjee I, Ghosh D, Thakur AR, (2012) East Kolkata Wetland: A Multifunctional Niche of International Importance, Online Journal of Biological Sciences, Volume 12, Issue 2, pp 80-88. ISSN 1608-4217.

Crawford JT, Lottig NR, Stanley EH, Walker JF, Hanson PC, Finlay JC, Striegl RG, (2014) CO_2 and CH_4 emissions from streams in a lake-rich landscape: Patterns, controls and regional significance, American Geophysical Union, DOI: 10.1002/2013GB004661.

Crawford JT, Dornblaser MM, Stanley EH, Clow DW, Striegl RG, (2015) Source limitation of carbon gas emissions in high-elevation mountain streams and lakes, Journal of Geophysical Research: Biogeosciences, DOI: 10.1002/2014JG002861.

Eugster W, Kling G, Jonas T, McFadden JP, Wuest A, MacIntyre S, Chapin FS, (2003) CO_2 exchange between air and water in an Arctic Alaskan and midlatitude Swiss lake: Importance of convective mixing, Journal Of Geophysical Research, Volume108. DOI: 10.1029/2002JD002653.

Geldern R, Schulte P, Mader M, Baier A, Barth JAC, (2015) Spatial and temporal variations of pCO2, dissolved inorganic carbon and stable isotopes along a temperate karstic watercourse, Hydrol. Process. Volume 29,pp 3423–3440. DOI: 10.1002/hyp.10457.

Gleason RA, Tangen BA, Browne BA, Euliss Jr. NH, (2009) Greenhouse gas flux from cropland and restored wetlands in the Prairie Pothole Region, Soil Biology & Biochemistry, Volume 41, pp 2501-2507. DOI:10.1016/j.soilbio.2009.09.008.

Gou QQ, Qu JJ, Han ZW, (2014) Analysis of the microclimate and CO_2 flux characteristics in arid desert wetland ecosystem in summer: A case study in Xihu desert wetland, Dunhuang, China, J. Earth Syst. Sci. Volume 123, No. 7, pp. 1491–1499.

Gupta GVM, Sarma VVSS, Robin RS, Raman AV, Jai Kumar M, Rakesh M, Subramanian BR, (2008) Influence of net ecosystem metabolism in transferring riverine organic carbon to atmospheric CO_2 in a tropical coastal lagoon (Chilka Lake, India), Biogeochemistry, Volume 87, pp 265-285. DOI: 10.1007/sl0533-008-9183-x.

Hamilton JD, Kelly CA, Rudd JWM, Hesslein RH, Roulet NT, (1994) Flux to the atmosphere of CH 4 and $CO_2$from wetland ponds on the Hudson Bay lowlands (HBLs), Journal Of Geophysical Research, Volume 99, No. D1, pp. 1495-1510**.**

Hamilton SK, Sippel SJ, Melack JM, (1995) Oxygen depletion and carbon dioxide and methane production in waters of the Pantanal wetland of Brazil, Biogeochemistry, Volume 30, Issue 2, pp 115-141.

Hirota M, Tang Y, Hu Q, Hirata S, Kato T, Mo W, Cao G, Mariko S, (2006) Carbon Dioxide Dynamics and Controls in a Deep-water Wetland on the Qinghai-Tibetan Plateau, Ecosystems, Volume 9, pp 673-688. DOI: 10.1007/s10021-006-0029-x.

Hirota M, Senga Y, Seike Y, Nohara S,Kunii H, (2007) Fluxes of carbon dioxide, methane and nitrous oxide in two contrastive fringing zones of coastal lagoon, Lake Nakaumi, Japan, Chemosphere, Volume 68, pp. 597–603. DOI:10.1016/j.chemosphere.2007.01.002.

Holgerson MA, (2015) Drivers of carbon dioxide and methane super saturation in small, temporary ponds, Biogeochemistry, Volume 124, pp 305–318. DOI: 10.1007/s10533-015-0099-y.

Huttunen JT, Väisänen TS, Heikkinen M, Hellsten S, Nykänen H, Nenonen O, Martikainen PJ, (2002) Exchange of CO_2, CH_4 and N_2O between the atmosphere and two northern boreal ponds with catchments dominated by peat lands or forests, Plant and Soil, Volume 242, pp 137–146.

IPCC, (2013) In: Stocker TF, Qin D, Plattner GK, Tignor M, Allen SK, Boschung J, Nauels A, Xia Y, Bex V, Midgley PM (Eds.), Climate Change 2013: the Physical Science Basic

Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

Larmola T, Alm J, Juutinen S, Huttunen JT, Martikainen PJ, Silvola J, (2004) Contribution of vegetated littoral zone to winter fluxes of carbon dioxide and methane from boreal lakes, Journal Of Geophysical Research, Volume 109. DOI: 10.1029/2004JD004875.

Lewis E, Wallace DWR (1998) Program Developed for CO_2 System calculations. ORNL/ CDIAC-105. Carbon Dioxide Information Analysis Centre, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tennessee.

Linto N, Barnes J, Ramachandran R, Divia J, Ramachandran P, Upstill-Goddard RC, (2013) Carbon Dioxide and Methane Emissions from Mangrove-Associated Waters of the Andaman Islands, Bay of Bengal, Estuaries and Coasts, Volume 37, pp 381–398. DOI: 10.1007/s12237-013-9674-4.

Lohila A, Tuovinen JP, Hatakka J, Aurela M, Vuorenmaa J, Haakana M, Laurila T, (2015) Carbon dioxide and energy fluxes over a northern boreal Lake, Boreal Environment Research, Volume 20, pp 474–488. ISSN 1239-6095.

Mammarella I, Nordbo A, Rannik U, Haapanala S, Levula J, Laakso H, Ojala A, Peltola O, Heiskanen J, Pumpanen J, Vesala T, (2015) Carbon dioxide and energy fluxes over a small boreal lake in Southern Finland, Journal of Geophysical Research: Biogeosciences. DOI: 10.1002/2014JG002873.

Mandal S, Roy Goswami A, Mukhopadhyay SK, Ray S, (2015) Simulation model of phosphorus dynamics of an eutrophic impoundment – East Calcutta Wetlands, a Ramsar site in India, Ecological Modelling, Volume 306, pp 226-239.

Marín-Mu~niz JL, Hernandez ME, Casasola PM, (2015) Greenhouse gas emissions from coastal freshwater wetlands in Veracruz Mexico: Effect of plant community and seasonal dynamics, Atmospheric Environment, Volume 107, pp 107-117.

Mosier AR, (1998) Soil processes and global change, Biology and Fertility of Soils, Volume 27, Issue 3, pp 221-229. DOI: 10.1007/s003740050424.

Muduli PR, Kanuri VV, Robin RS, Kumar BC, Patra S, Raman AV, Nageswarara Rao G, Subramanian BR, (2012) Spatio-temporal variation of CO_2 emission from Chilika Lake, a tropical coastal lagoon, on the east coast of India, Estuarine, Coastal and Shelf Science, Volume 113, pp 305-313. DOI: 10.1016/j.ecss.2012.08.020.

Natchimuthu S, Selvam BP, Bastviken D, (2014) Influence of weather variables on methane and carbon dioxide flux from a shallow pond, Biogeochemistry, Volume 119, pp 403-413. DOI: 10.1007/s10533-014-9976-z.

Parsons TR, Maita Y, Lalli CM, (1992) A manual of chemical and biological methods for sea-water analysis, Pergamon, New York, pp 101-103.

Poissant L, Constant P, Pilote M, Canário J, O'Driscoll N, Ridal J, Lean D, (2007) The ebullition of hydrogen, carbon monoxide, methane, carbon dioxide and total gaseous mercury from the Cornwall Area of Concern, Science of the Total Environment, Volume 38, pp 256–262. DOI: 10.1016/j.scitotenv.2007.03.029.

Raymond PA, Hartmann J, Lauerwald R, Sobek S, McDonald C, Hoover M, Butman D, Striegl R, Mayorga E, Humborg C, Kortelainen P, Durr H, Meymeck M, Ciais P, Guth P, (2013) Global carbon dioxide emissions from inland waters, Nature, Volume 503, pp 355-359. DOI: 10.1038/nature12760.

Repo ME, Huttenun JT, Naumov AV, Chichulin AV, Lapshina ED, Bleuten W, Martikinen PJ, (2007) Release of CO_2 and CH_4 from small wetland lakes in western Siberia, Tellus, Volume 59B, pp 788–796. DOI: 10.1111/j.1600-0889.2007.00301.x.

Richey JE, Melack JE, Aufdenkampe AK, Ballester VM, Hess LL, (2002) Outgassing from Amazonian rivers and wetlands as a large tropical source of atmospheric CO_2, Nature, Volume 416.

Riera JL, Schindler JE, Kratz TK, (2011) Seasonal dynamics of carbon dioxide and methane in two clearwater lakes and two bog lakes in northern Wisconsin, U.S.A., Canadian Journal of Fisheries and Aquatic Sciences, Volume 56, Number 2, pp 265-274. DOI:10.1139/f98182.

Robin RS, Kanuri VV, Muduli PR, Ganguly D, Patra S, Hariharan G, Subramanian BR, (2015) CO_2 saturation and trophic shift induced by microbial metabolic processes in a river dominated ocean margin (tropical shallow lagoon, Chilika, India), Geomicrobiology Journal. DOI: 10.1080/01490451.2015.1059525.

Ruiz-Halpern S, Maher DT, Santos IR, Eyre BD, (2015) High CO2 evasion during floods in an Australian subtropical estuary downstream from a modified acidic floodplain wetland, Limnol. Oceanogr. Volume 60, pp 42–56. DOI: 10.1002/lno.10004.

Saunders MJ, Kansiime F, Jones MB, (2013) Reviewing the carbon cycle dynamics and carbon Sequestration potential of Cyperus papyrus L. wetlands in tropical Africa, Wetlands Ecology and Management, Volume 22, pp 143-155. DOI 10.1007/s11273-013-9314-6.

Semiletov IP, Pipko II, Pivovarov N, Povov VV, Zimov SA, Voropaev YV, Daviodov SP, (1996) Atmospheric Carbon Emission From North Asian Lakes: A Factor of Global Significance, Atmospheric Environment, Volume 30, No. 10/11, pp 1657-1671.

Serrano-Grijalva L, Sanchez-Carrillo S, Angeler DG, Sanchez-Andres R, Alvarez-Cobelas M, (2011) Effects of shrimp-farm effluents on the food web structure in subtropical coastal lagoons, Journal of Experimental Marine Biology and Ecology**,** Volume 402, Issues 1–2, pp 65–74.

Smith CJ, DeLaune RD, Patrick Jr. WH, (1983) Carbon dioxide emission and carbon accumulation in coastal Wetlands, Estuarine, Coastal and Shelf Science, Volume 17, Issue 1, pp 21–29. DOI: 10.1016/0272-7714(83)90042-2.

Song C, Yan B, Wang Y, Wang Y, Lou Y, Zhao Z, (2003) Fluxes of carbon dioxide and Methane from swamp and impact factors in Sanjiang Plain, China, Chinese Science Bulletin, Volume 48 No. 24, pp 2749-2753.

Striegl RG and Michmerhuizen CM, (1998) Hydrologic influence on methane and carbon dioxide dynamics at two north-central Minnesota lakes, Limnol. Oceanogr., Volume 43, Issue 7, pp 1519-1529.

Teiter S and Mander U, (2005) Emission of N_2O, N_2, CH_4, and CO_2 from constructed wetlands for wastewater treatment and from riparian buffer zones, Ecological Engineering, Volume 25, pp 528–541. DOI: 10.1016/j.ecoleng.2005.07.011.

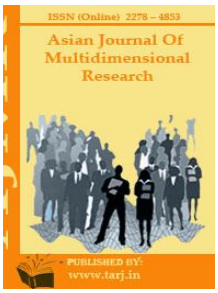
Torgersen T and Branco B, (2008) Carbon and oxygen fluxes from a small pond to the atmosphere: Temporal variability and the CO_2/O_2 imbalance, Water Resources Research, Volume 44, DOI: 10.1029/2006WR005634.

Xing Y, Xie P, Yang H, Ni L, Wang Y, Rong K, (2005) Methane and carbon dioxide fluxes from a shallow hypereutrophic subtropical Lake in China, Atmospheric Environment, Volume 39, pp 5532–5540. DOI: 10.1016/j.atmosenv.2005.06.010.

Yang P, He Q, Huang J, Tong C, (2015) Fluxes of greenhouse gases at two different aquaculture ponds in the coastal zone of southeastern China, Atmospheric Environment, Volume 115, pp 269-277.

Zhong Q, Wang K, Lai Q, Zhang C, Zheng L, Wang J, (2015) Carbon Dioxide Fluxes and Their Environmental Control in a Reclaimed Coastal Wetland in the Yangtze Estuary, Estuaries and Coasts. DOI: 10.1007/s12237-015-9997-4.

Zhu R, Liub Y, Xu H, Huang T, Sun J, Ma E, Sun L, (2010) Carbon dioxide and methane fluxes in the littoral zones of two lakes, east Antarctica, Atmospheric Environment, Volume 44, Issue 3, pp 304–311.



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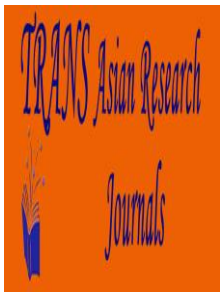

MIDDLE ENGLISH AND ITS CHARACTERISTICS: THE RISE OF STANDARD ENGLISH

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ABSTRACT

The transition from Old English to Middle English took place after the Norman Conquest of 1066.At that time, the Normans spoke a rural dialect of French with Germanic influence on it, called Anglo-Norman or Norman French, and it was different from the standard French of Paris. Later, the Normans gave more than 10,000 words to English and influenced English in many ways. The Middle English period, thus, was marked by significant changes in the English language. By 15th century, the rise of Standard English was another significant development in the history of English language. The East Midland dialect became the standard language of Britain. By the end of 16th century, it has become universal.

This research paper analyzes the developments in English language after Norman Conquest (Middle English period) until 16th century in terms of vocabulary, grammar, spelling and pronunciation etc and the reasons for the rise of Standard English and the impact of Standard English later

KEYWORDS: *English, grammar, Middle English, Norman Conquest, pronunciation, spelling, Standard English, vocabulary.*

INTRODUCTION

Middle English language**,** the vernacular spoken and written in England from about 1100 to about 1500, the descendant of the Old English language and the ancestor of Modern English. The history of Middle English is often divided into three periods: (1) Early Middle English, from about 1100 to about 1250, during which the Old English system of writing was still in use; (2) the Central Middle English period from about 1250 to about 1400, which was marked by the gradual formation of literary dialects, the use of an orthography greatly influenced by the Anglo-Norman writing system, the loss of pronunciation of final unaccented *-e*, and the borrowing of large numbers of Anglo-Norman words; the period was especially marked by the rise of the London dialect, in the hands of such writers as John Gower and Geoffrey Chaucer; and (3) Late

Middle English, from about 1400 to about 1500, which was marked by the spread of the London literary dialect and the gradual cleavage between the Scottish dialect and the other northern dialects. During this period the basic lines of inflection as they appear in Modern English were first established. Among the chief characteristic differences between Old and Middle English were the substitution of natural gender in Middle English for grammatical gender and the loss of the old system of declensions in the noun and adjective and, largely, in the pronoun.

The dialects of Middle English are usually divided into three large groups: (1) Southern (subdivided into Southeastern, or Kentish, and Southwestern), chiefly in the counties south of the River Thames; (2) Midland (corresponding roughly to the Mercian dialect area of Old English times) in the area from the Thames to southern South Yorkshire and northern Lancashire; and (3) Northern, in the Scottish Lowlands, Northumberland, Cumbria, Durham, northern Lancashire, and most of Yorkshire.

Middle English period is called the period of transformation. English had so many changes in this period and it was different from Old English. The invasion of Normans, changes in English, the characteristics of English in Middle English period are discussed comprehensively in this research paper.

MIDDLE ENGLISH

England was never seriously invaded after 1066 (After Norman Conquest). Indeed, the history of England shows the English invading and colonizing other places: Ireland, the Americas, Asia, Oceania and Africa**.** Changes are inevitable. Even changes in the growth of English after the Norman Conquest are perceptible. The West Saxon dialect was the standard literary language of England in Old English period but it came to an end when a Danish king occupied the English throne in 1016. In the beginning of Middle English period, there was no standard literary language and the writers wrote in their own dialects. There were four principal dialects of Middle English: Northern, East Midland, West Midland and Southern. In fact, these dialects came from Old English. Northumbrian was treated as Northern, Mercian was called Midland (East Midland and West Midland) and West Saxon and Kentish were called Southern dialect. After the Norman Conquest, East Midland dialect became a standard language gradually and it was a recognized standard in both speech and writing.

There was a great transformation in English after the Norman Conquest. This period is often called a transition period between Old and Middle English. Changes could be found in pronunciation and grammar and even vocabulary suffered a great loss because most of the Old English words disappeared and thousands of French and Latin words were introduced in Middle English. The Norman Conquest affected English greatly during these three centuries. The changes were so extensive and fundamental and they changed the English of Alfred into the English of Chaucer. The Scandinavian influence began in Old English period and continued even in Middle English period.

CHARACTERISTICS OF MIDDLE ENGLISH

Middle English underwent great changes in vocabulary with the Scandinavian invasions and the Norman Conquest. Scandinavian words were used in speaking in Old English period and even in Middle English period. The Norman Conquest transformed the character of English in terms of vocabulary. The number of French words that poured into Middle English was incredibly great. Most of these words were related to art, fashion, medicine, learning, warfare and ecclesiastical

words also. Mario Pei has aptly says, "As for vocabulary, the Norman Conquest acted like a bomb that smashes a dike and lets loose a flood". Latin was a spoken language among men of learning and priests of church. A number of Latin words, relating to law, medicine, theology, science and literature, passed into English. Some of the Latin words are – *pauper, equivalent, legitimate, index, memento, scribe, simile, requiem* etc. In this way, French and Latin influenced Middle English vocabulary. In 14th & 15th centuries, the words introduced into English from other languages are:

Spanish: cordwain (leather from Cordova), cork.

Arabic (almost all acquired through French or Italian): saffron, mattress, cotton, hazard, henna, alchemy, alkali, zenith, almanac, syrup, mosque, and bedouin.

Hebrew (through French): jasper, cinnamon, sapphire, leviathan, cabal, shibboleth, jubilee.

Indian Languages: sandal.

Persian (through French): scarlet, checkmate, chess, azure, arsenic, mummy.

Low Germanic Languages (Dutch, Frisian, Flemish, Plattdeutsch, Afrikaans): dote, bounce, snatch, huckster, boy, booze, hobble, splint, kit.

Italian: alarm, million, ducat, brigand, bark (a kind of ship), tunny (a kind of fish).

The borrowing of French words into Middle English occurred in two phases: 1066-1250 and 1250-1500. In the first phase, approximately 1000 words were borrowed (Jespersen 1938:87, Baugh & Cable 2002:168). Words such as *baron, servant, messenger* and *story* were borrowed at this time. In the second phase, French speakers adopted English and the immigrants in the US had to adopt English. Particularly, the influence of French on Middle English was very strong. Some estimated the total number of loans in this period were 10,000. The words borrowed were nouns, verbs, adjectives and a few adverbs.

FRENCH LOANS:

Government: - government, royal, state, authority, prince, duke, duchess, tax, marshal, mayor, governor, warden, treasurer, parliament, assembly, court, revenue, subsidy, crown, empire, sovereign, majority, scepter, usurp, exchequer, chancellor, minister, councilor, constable, noble, baron, sir, madam, courteous, fine, honour, glory, major, castle, peasant, slave, servant, people, nation.

Law: - judge, jury, bail, estate, evidence, verdict, punish, crime, property, tenant, legacy, heir, heritage, tenure, executor, real-estate, bar, court, suit, plaintiff, defendant, advocate, attorney, bill, petition, complaint, ransom, sentence, decree, gaol, prison, fraud, assault, slander, adultery. Verbs: plead, accuse, pledge, warrant, condemn, convict, imprison, banish, acquit, pardon, award. Adjectives: just, innocent, culpable.

Military: army, navy, enemy, peace, battle, combat, defense, ambush, retreat, garrison, spy, troops, captain, lieutenant, soldier, admiral, sergeant.

Learning: - study, anatomy, geometry, grammar, logic, medicine, physician, surgeon, pulse, jaundice.

Art and fashion: - art, music, painting, sculpture, image, poet, title, preface, fashion, garment, veil, button, chair, cushion, couch, lace.

Food: - appetite, feast, dinner, supper, taste, beef, mutton, pork, pastry, salmon, lemon, orange, raisin, date.

Religion: - divine, devout, charity, mercy, baptism, confess, salvation, temptation, damnation, convert, sanctity, solemn, religion, theology, sermon, penance, communion, prayer, clergy, clerk, cardinal, pastor, novice, crucifix, incense, creator, savior, trinity, saint, virgin, mystery, faith, heresy, devotion, redemption, immortality, piety, pity, obedience, preach, pray, ordain.

Nouns: - action, adventure, age, coward, damage, scandal, tavern, vision.

Adjectives: - able, abundant, active, certain, common, firm, frank, proper, safe and sudden.

Verbs: - advise, aim, allow, apply, arrive, close, enjoy, enter, form, join, marry, move, praise, prefer, refuse, save, serve, and wait (Baugh & Cable, 2002).

By the end of 15th century, English came to acquire the following Greek words:

Academy, atom, bible, diphthong, harmony, ecstasy, nymph, philosophy, astronomy, astrology, geography, logic.

Thus, the flow of new words abundantly into Middle English from other languages was conspicuous during this period. In this context, the comment of A.C.Baugh on English language is to be focused. He aptly says, "At the beginning of the period, English is a language which must be learned like a foreign tongue; at the end it is Modern English". From his words, it is clearly understood that English was a highly inflected language at the beginning of the period but at the end, English was an analytic one. As far as vocabulary is concerned, Middle English period is a period of transformation.

When it comes to word formation, compounds were frequent in Old English but not in Middle English. Mostly, the suffixes used in Old English to create nouns and adjectives remained active even in Middle English.

1. The derivational suffixes used in Old English, to create abstract nouns, were also used in Middle English – dom,- hede,- lac, -ness, -ship, -ung etc. e.g. fredom, worship, likelihede etc

2. The suffixes used in Old English to form agent nouns, were also found in Middle English. They are: -er, -end,-ling. e.g. worshipper, allwaldend, fosterling

3. In Middle English, the same suffixes used to form adjectives as used in Old English. They are: -ed, -en, -ful, -less, -ly, -som, -wise etc. e.g. blisful, otherwise etc.

Meaning changes continued to take place in Middle English. For example, beginning and commencement are synonyms in Middle English. In 1250, the word 'commencement' was introduced. The meaning of commencement was 'time of beginning' but in 1387, it was used for 'taking the degree of Master or Doctor'. Thus, the majority of words shifted their meanings in Middle English. In Middle English, some compound words were also used. They are: *barehead, church-hawe, dunghill, foot-hot, glow-worm, love-drink, polecat, shoulder-bone etc.*

The Middle English period is called the period of "levelled inflexions". Many changes took place in grammatical structure during this period. The tendency of this period was different. The great characteristic of English was the obscurity of vowels in unstressed positions. Let us see the grammatical changes in Middle English period:

1. In Middle English, genitives were formed by *-es* and plurals by *–as.* But it was different in Old English. In Old English, genitive singulars were formed by *–es, -a, -an, -e*; nominative and accusative plurals by *–as, -a, -an, -e, -u*. As a result, the pronunciation of vowels in all unstressed syllables was obscured in Middle English.
2. In Middle English, *-en* was the regular plural ending of nouns. For example, trewen (trees), lambren (lambs). Even in Modern English, we have such plurals – children, brethren etc.
3. In Old and Middle English, ***e*** was a common ending in many inflexional forms. But in modern English, the end letter '**e'** is not pronounced.
4. In Old English, the definite article ***þe*** (the) had so many inflexions but in Middle English, they disappeared almost.
5. The inflexions of adjectives in Old English disappeared in Middle English.
6. The most remarkable change is gender system. In Old English, we had irrational and illogical gender system. In Middle English, gender was logically corresponded to sex. Masculine for males, feminine for females and neuter for objects not possessing any sex, were treated.
7. Possession in genitive case was used in the beginning of Middle English period either by the genitive inflexion or by the preposition '***of* '.**
8. Old English had comparative and superlative forms for adjectives by inflexion. French grammar introduced the use of adverb in Middle English period.
9. In 14th century, the Scandinavian pronouns replaced Old English pronouns. They are – *she, they, them, their.* Old English ***ic*** became **I** early in 13th century.
10. The present participle changed its form from '-ende' to 'ing'.
11. The adjective was reduced from eleven forms to one.
12. The full vowel endings such as *–a,-u,-e,-an,-um* etc were reduced to *–e.*
13. The important development in Middle English period was the extended use of the auxiliary "do" in questions and negatives.

E.g.:- Do you see?

No, I don't see.

When it comes to pronunciation and spelling in Middle English, there was always confusion in spelling. After the Norman Conquest, French was widely used. People spelt the words phonetically according to French rules. There was uncertainty in orthography. In the early 14th century, English spelling was more or less fixed. Some of these changes are:

1. The letter **ð** went out of use in Middle English.
2. Old English **ā** became **ō** in Middle English (hām-hōm).
3. ***Þ*** was retained but used as 'th' in Middle English (*þe*-the).
4. **Qu** (queen) was used in Middle English instead of Old English **'cw'**
5. **V** or **u** was used instead of Old English '**f' (**over, ouer- ofer).
6. **'Ou**' was used instead of **Old** English **'ū' (house**-hus**).**

7. **Sch, sh** were used instead of Old English '**sc'.**
8. **V** and **w** were introduced but their use was different from text to text: **vppen 'up'** and **wiues 'wives'** in Layamon and **vertu 'virtue'** in Chaucer.
9. During Middle English period, the **æ** and **ð** were replaced by ***a*** and ***th / þ*** respectively.
10. '**t**' in words such as **Artur, Antony** and **Katerina** changed to '**th**' such as **Arthur** in **Gawain.**
11. In the late Middle English, the use of double vowels was different. Old English 'boc' and 'bête' became 'book' and 'beet' respectively.

In short, the differences in orthography between Old English and Middle English are seen below:

Old English	Middle English
S	*s, z*
f	*f*,v
Θ, ð	*th*
Cw	*qu*
Sc	*ss, sch, sh*
Cg / g	*y, j, g*
C (velar)	*k, c*
Ĉ (palatal)	*ch*

The following chart shows how the different spellings were used in both Old English and Middle English to represent the same sound – vowel category here.

Old English	Middle English
i	*i , y* (*king, kyng*)
ȳ	*u* (*busi*) 'busy'
ȳ	*u, ui* (*fur, fuir*) 'fire'
ē	*ee, ie, e* (*queen, field, quen*)
ō	*oo, o* (*food, fod*)
ū	*ou, ow* (*hous, hows*)

Pronunciation underwent a sea change in Middle English. There are many sound changes between Old and Middle English. Consonant deletion and vowel shifting (The Great vowel Shift) are the main changes in Middle English period in terms of pronunciation. A few changes are given here:

1. In Middle English, the **–ed** of past participle was generally sounded.

2. Final **-e, -es, -en** and **–n** were always sounded in Middle English.

3. The g / ȝ first became w / j and merged with the preceding vowels to become a diphthong.

e.g.	Old English	Middle English
	Boga	bow
	Ploga	plow
	Dæg	day
	Seʒel	sail

4. In Middle English, the sound ***h*** dropped in the examples given below:

e.g. *Ich **abbe** i min castlen seoue þusend kempen*

I have in my castles seven thousand fighters (Layamon line 233)

Due to French influence, the loss of ***h*** in consonant clusters such as **hlaf** 'loaf', **hraðor** 'rather', **hnutu** 'nut' and **hnacod** 'naked' was evident.

5. The glide / w / was frequently deleted between a consonant such as / s / or / t / and a vowel.

Old English	Middle English
Swa (sw)	so
Twa (tw)	to
Sweord (sw)	sword
Sweostor (sw)	suster

6. In some place names – Norwich, Greenwich, and Warwick, the pronunciation of / w / was missing in Middle English.

7. Changes in vowel height took place in pronunciation. The long ***a*** sound in *na, mast, ham* and *ane* became ***o*** in Middle English in both spelling and pronunciation. They became **no**, **most, home** and **one** even in Modern English. The short ***a*** in the words **man** and **land** was often ***o*** in the North but not in the South.

8. In Old English, the vowels had long and short variants. In Middle English, the short vowels changed their height and were not just short variants of the long vowels. Some (a :) sounds changed to (o) or (ow) and the round front vowel, spelled y, as in ***hydan*** 'to hide', ultimately became an unrounded (i).

9. The (Ↄ j) sound, as in **joy,** came in through borrowings from French.

The great literary productions of Middle English times were written in clearly identifiable regional varieties, from the North (Cursor Mundi) and North Midlands (the Gawain poet) to the Southwest Midland (Piers Plowman), Kent (The Ayenbite of Inwit) and London (Chaucer). As we know, the London dialect became popular later. In fact, English reemerged as a language used for literature, the court and the Church only after 1300 (Baugh & Cable 2002: chapter 6). Several historical dates are pertinent to this reemergence. In the year 1258, Henry III used both English and French for an official proclamation and English gradually gained influence. In 1349, English was first used at Oxford University. In 1362, Edward III opened parliament in English and replaced French with English in law courts. In the early Middle English period, English was not a prestigious language. But after 1300, many texts on different topics were written in English. The texts available are varied: songs, medicinal handbooks, philosophical and scientific

works, romances, fiction, travel accounts etc. Middle English works provide an idea of daily life in towns and castles, churches and monasteries. These works are available as manuscripts. Some works in Middle English are:

The History of the Holy Rood Tree: West Saxon, 12th century.

Layamon's Brut: Caligula and Otho manuscripts, 13th century.

Cursor Mundi: various manuscripts; e.g. Cotton Ms: northern, 1300.

Gawain and the Green Knight, St.Erkenwald, Pearl, Cleanness and Patience, mid 14th century.

Langland's Piers Plowman: West Midlands, late 14th century.

Morte d'Arthur: East Midlands, late 14th century.

Chaucer's the Canterbury Tales, Boethius and Astrolabe: Southern, late 14th century.

Wycliff and followers: Midlands, late 14th century.

Chancery Documents: Southern, 14th and 15th century.

The York Plays: Northern, 15th century.

The Paston Letters: Norfolk, 15th century.

CHAUCER AND THE BIRTH OF ENGLISH LITERATURE

Most of the Middle English literary works, until 14th century almost, was not clear with unknown authorship**.** Geoffrey Chaucer wrote "Canterbury Tales" in the early 1380s in English. It was considered the first great work of English literature though there were other works produced at the same time. Though Chaucer used vocabulary taken from French and Latin into English language, his work was very much in reformed English, a complete, flexible and confident language. Chaucer introduced many words into English, approximately 2,000 words, which were in everyday use in London in 14th century. The words found in Chaucer's works are: *absent, accident, add, agree, bagpipe, border, box, cinnamon, desperate, discomfit, digestion, examination, finally, flute, funeral, galaxy, horizon, infect, latitude, miscarry, nod, obscure, observe, outrageous, perpendicular, princess, resolve, rumour, scissors, session, superstitions, theatre, trench, universe, utility, vacation, valentine, village, vulgar, wallet, wildness.* In 1384, John Wycliffe produced the translation of "The Bible" in vernacular English. It was indeed a landmark in English language. Over 1000 English words were first recorded in it. Most of them were Latin based, often via French: *barbarian, birthday, canopy, child-bearing, communication, cradle, crime, dishonour, emperor, envy, godly, humanity, glory, injury, justice, madness, mountainous, novelty, oppressor, philistine, pollute, profession, puberty, schism, suddenly, unfaithful, visitor, zeal* and also phrases – *an eye for eye, woe is me* etc. By the late 14th century and 15th century, the language had drastic changes. William Caxton's writing and printing changed the fate of language and it made easy for the readers to understand.

In 15th century, England was an island nation with two independent kingdoms – Wales and Scotland. English was far from being a world language. There were probably seven million speakers only. Later, English became a standard language. Let us examine how it happened.

THE RISE OF STANDARD ENGLISH

In Anglo-Saxon (Old English Period), the dialect of West Saxon became the pre-eminent one and it was used as literary dialect. King Alfred the Great encouraged West Saxon as both author and translator. In the Middle English period, Chaucer and a number of contemporary writers gave the East Midland dialect a literary prestige. The invention of printing was the most influential factor for the emergence of Standard English. It could not influence pronunciation but it could stabilize grammar, spelling, syntax and vocabulary. During the time of Tudor monarchs, the East Midland dialect was spoken, in London, for the national unity which helped assure supremacy for the English of capital. The development of Standard English connected with capital had profound impact on the country. It is natural that the standard language of English sprang from the dialect of London because London became a great political and commercial centre and the focus of the social and intellectual activities of the country. People from different parts of the country came to capital and became familiar with London English. Dr.Johnson's dictionary reduced a chaotic spelling system and fixed English spelling from that time onwards and it established the notion of a cleavage between what good English was and was not.

There are two reasons for the rise of Standard English. Firstly, French lost its former prestige by 15th century. In fact, French was the language of the aristocracy in England before. Later, the wars created a rift between England and France. As a result, the English aristocracy abandoned French in favour of English, treating French as their enemy. Secondly, the rise of Standard English was associated with the Chancery, the country's independent administrative office. Chancery variety was developed into a standard variety with the encouragement of the king, Henry V. The variety used by Henry V's Signet Office was spoken in the East Midland area. Gradually, the chancery adopted the East Midland dialect as its written medium.

In 15th century, the East Midland dialect became the standard language of Britain in both speech and writing. Several factors helped this dialect to attain supremacy. Geographically, the Midland dialect occupied a position between the North and the South. The Southern dialect was very conservative and the Northern dialect underwent rapid changes due to the Danish settlements in that region. These two dialects became two separate languages. But the Midland dialect, particularly the East Midland dialect, was a compromise tongue and it was accessible and understandable to the speakers of both Northern and Southern people. Thus, the East Midland dialect became the standard language of the country. The presence of the two reputed universities – Oxford and Cambridge – was also another factor that helped the Midland dialect to establish itself as the standard language. Oxford and Cambridge universities attracted students and scholars from all the regions of the country for learning and research activities. Moreover, the East Midland area was agriculturally rich and it had the seat of government and administration (Lass, 1987:65-7). This dialect was connected with all domains: government and administration, education and learning and the Church. As the language of the court, and with parliament and the port of London as the centres of national and international business, the East Midland dialect got significance. The most important factor that helped the East Midland dialect to become the standard language was the capital of England, London, where the East Midland dialect flourished. People from all regions of the country came to capital and became familiar with London English. The role of Chaucer, the father of English poetry, was also important in the formation of Standard English. He used the London dialect a vehicle for his literature. The popularity of language was further spread by many subsequent poets who treated Chaucer as their model and wrote in the language he used. Wycliff, a contemporary of Chaucer, with his

translations of the Bible also helped for this standard language. Langland and Gower also took part in this attempt.

In 15th century, William Caxton, the first English printer, printed and published a large number of books in the London dialect. The dissemination of the East Midland dialect took place rapidly. Caxton made this dialect undisputed and fixed its form for the future. By the end of 16th century, the use of London English became universal. During the Elizabethan age, Spenser, Shakespeare, Sydney and other brilliant writers worked hard for the effective expression in the language. Still it is true that complete uniformity was not yet achieved. But the printing press increased means of communication, centralized authority and created a reading public. It also accelerated the pace of London English's development. The process of standardization yielded a fruitful result i.e. the standardization of English language. By 18th century, it was spread through many newspapers, periodicals, magazines etc.

CONCLUSION

In this paper, the developments in Middle English period in terms of vocabulary, spelling, grammar etc and the rise of Standard English and its implications have been thoroughly discussed. In fact, there are tremendous changes in English after the Norman Conquest rather than Anglo-Saxon period. Truly, Middle English period is considered a period of transformation.

There were significant changes in English language during Middle English period rather than Old English period. Thousands of words were introduced by Normans into English from French. The rise of Standard English was another remarkable development. Grammar, spelling, vocabulary and syntax were stabilized but not pronunciation. Of course, pronunciation was also more or less simplified later i.e. in Modern English period. However, the rise of Standard English gave recognition to English language in all aspects and as we know, English has become an international language and now it is treated as a global language.

REFERENCES:

Barnett, Lincoln. 1966. A History of the English Language. C. Nicholls & company Ltd.

Bauer, Laurie. 1983. English word-formation, Cambridge: Cambridge University Press.

Baugh, Albert C.1965. A History of the English Language. 2edn. London: Routledge.

Baugh, Albert C. and Thomas Cable. 1978. A History of the English Language, 3rd edn, London: Routledge & Kegan Paul.

----------. 1993. A History of the English Language. 4th edn. London: Routledge.

----------. 2002. A History of the English Language. London: Routledge.

Bex, Tony; Richard J. Watts (1999). Standard English: The widening debate. Routledge. ISBN 0-415-19162-9.

Bradley, Henry.1964: The Making of English. London: Macmillan.

Brook, G.L. 1955. Introduction to Old English. Manchester: Manchester University Press.

----------. 1958. A History of the English Language. Andre Deutsch Limited, London.

Chomsky, Noam. 1986. Knowledge of Language: its nature, origin and use. New York: Praeget.

Crowley, Tony (2003). Standard English and the Politics of Language (2nd ed.). Palgrave Macmillan. ISBN 0-333-99035-8.

Crystal, D. 1987. The Cambridge Encyclopaedia of Language, Cambridge: Cambridge University Press.

----------. *1988. The English Language. Harmondsworth: Penguin.*

Dwivedi, A.N. 1996. A History of the English language. Raza Barqui Press, Bareilly, India.

Freeborn, Dennis (2006). From Old English to Standard English: A Course Book in Language Variations Across Time (3rd ed.). Palgrave Macmillan. ISBN 1-4039-9880-9.

Gelderen, Elly Van. 2006. A History of the English Language. John Benjamins Publishing Company.

Gorlach, Manfred. 1997. "The Linguistic History of English" (Basingstoke: Macmillan)

Hogg, Richard and Denison, David. 2006. A History of the English Language. Cambridge: Cambridge University Press.

Joseph M. Williams. 1975. Origins of the English Language: A Social and Linguistic History. The Free Press, New York.

Kachru, B.B. 1986. The Alchemy of English. Oxford: Pergamon Press.

Lass, Roger, ed. Approaches to English Historical Linguistics. New York. 1969.

----------.1987. The Shape of English: Structure and History. London and Melbourne: Dent.

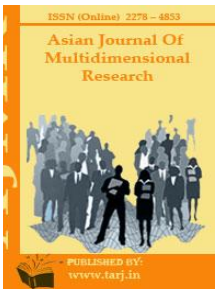
----------.1997. Historical Linguistics and Language Change. Cambridge: Cambridge university Press.

----------.1999a. The Cambridge History of the English Language. Vol 3. 1476-1776. Cambridge: Cambridge university Press.

Roy, R.N. 1966. A Short History of the English Language. Published by Firma K.L.Mukhopadhyay, Kolkata, India.

Vinoda. A Short History the English Language. Nachson Books. Warangal, India.

Wood, F.T. 1978. 2nd edn. An Outline History of the English Language. Published by S.G.Wasani for the Macmillan Company of India Ltd.



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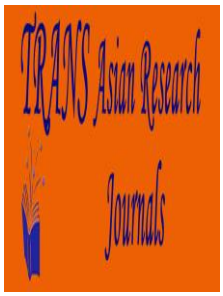

IDEALISTIC THOUGHTS OF DR. B. R. AMBEDKAR ON NEW EDUCATION SYSTEM

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ABSTRACT

"The object of primary education is to see that every child that enters the portals of a primary school does leave it only at a stage when it becomes literate and continues to be literate throughout the rest of his life." -B.R. Ambedkar Ambedkar negated the external intervention in space of education (globalization and education), and directed towards a socialist model of education according to Buddhist ideology. This also examines the relevance of his philosophy of education with the movements of liberation of depressed classes, which are in turn based on education. The educated can assert their rights and be motivated for development. This paper will study Ambedkar's educational philosophy in regards to other Indian educational philosophers where Ambedkar has disappeared from such discourse. His vision and ideas on education necessitate a study of Ambedkar while seeking to amplify the ignored voices through education. History of Indian Education System The philosophy of education is considered as one of the fields of philosophy, where the philosophical approaches like metaphysics, epistemology, and axiology, aesthetics and ethics are comparatively examined. Educational philosophy cooperates with the above approaches and also propagates processes to provide knowledge to individuals based on their abilities.

KEYWORDS: *Globalization And Education, Approaches, Comparatively*

INTRODUCTION

The aim and objective of this philosophy is to create skills, responsibility, and respectable, knowledgeable and reasonable citizens for nation states. The function of educational philosophy is to address the teacher- learner interactions where the teachers carry a philosophical nature when they enter a class room. In the Indian context, educational philosophy envisages more or less the same approaches, objectives and functions. Going back to its roots, there were influences pertaining to history (the Vedic and post-Vedic periods); the Astikas system represented an orthodox belief and the Nastikas system was heterodox. In the orthodox system, there is Vedic

religious philosophy discussed in different schools of Mimansa, Vedanta, Sankhya, Nayna, Yoga and so on.

In Nastikas schools are included Charvaka, Buddha and Jaina. The educational values imparted according to the schools of thought and other antecedents are hegemonic and destructive in nature. These philosophical traditions have been blanketed from the western philosophical sphere. The Islamic influence in medieval India was also reflected in educational values, where institutions like Madarsas and Maktabs were created to provide education. Other religious schools also provided learning to individuals. The Islamic medium of learning was Persian and subjects like maths, logic, reasoning and languages were taught by respective teachers. The aims and objectives of education were to provide religious and vocational learning to the individual. The other part was to provide military training which could create options for livelihood. The British invasion of India further impacted the education system of country. The Christian philosophy of education was introduced in this period. In fact, this was the beginning of the modern period in India where spreading modern values introduced by the British through various reforms brought in education.

The reforms included: Indian Universities Commission, 1902, Indian University Act, 1904; National Education Policy for 1912, Hertog Committee Report in 1929. In these reforms, a public education system was part of the western ideas for creating an administrative system. However, the appraisal of the Indian reformists criticized the British. Sri Aurobindo, Swami Dayanand, M.K. Gandhi, Rabindranath Tagore, Dr. S. Radhakrishnan, Jawaharlal Nehru, M. N Roy, Raja Ram Mohan Roy, Annie Besant, M.G Ranade- they all demanded educational reforms for the nation. They believed that the British education system is against the interests of the Indian citizen. Their aim and objective behind education was that the education polices of the British presented an alternative and a different philosophy of education. They wanted new national educational polices for the country (Gupta S. 2005). But Mahatma Jotiba Phule was the first one who raised the issue of education for backward castes before the Hunter commission. And then there was another towering personality, the constitution maker for free India, Dr. Bhimrao Ramji Ambedkar, who strived to secure rights for the depressed classes and fought for their liberation. He was the first untouchable student who pursued higher education from abroad and become the father of modern India. His philosophy of life was influenced by Buddha, Kabir, Mahatma Phule, Shahu Maharaj and so on. He presented his reformist suggestions on the educational rights of the depressed classes. His philosophical determinants have not been cherished by academicians of the country nor has his liberation ideas for the depressed classes discussed on a national platform by the upper castes.

He wrote on various issues but the textbook academia of India have ignored his theories. Ambedkar remains just a constitution maker for millions of people of this country, not even upper caste media is sensitive to his ideas on education and liberation. His philosophy of education should have been discussed separately and implemented in India's education system. It will take some time to address the educational process that Ambedkar's pedagogy teaches for the students of this country. If his ideas in the field of education, whether it was primary or university education, were accepted they would make great a new addition to India's educational philosophy. Ambedkar suggested several policy measures for the development of education starting from primary to university that can be found to be relevant today to make the education sector effective and accountable. His ideas are full of innovations and quite pragmatic. His emphasis on the economic value of education that is the utilization of scare resources for the

development of education, the idea of pooling the teaching resources of both city colleges and universities to avoid duplication and to improve efficiency etc. are still very relevant. Relevance of Dr. Ambedkar philosophy's of education Education has been seen as conducting an emancipatory role in each person's life.

The current education system has drawn inspiration from opinions which are cultured from the authoritative powers of the dominating classes, and seems divorced from exploring the rationale for its relevance in society at large and the youth within it. Ambedkar was an impeccable leader, who took up the leadership to light the lamp of enlightenment. With his immense reading and clarity of thoughts and arguments, he countered the oppressive and discriminatory caste based practices. Ambedkar's last words emphasized: 'Educate, Agitate and Organize'. He was a person with high intellect and was trained under the then distinguished scholars like John Dewey, Charles Beard and R. A. Seligman (Sirswal, 2011). It's astonishing to realize that Ambedkar's opinions and perceptions on education aren't recognized. Since 1920, when he actively became a part of the public platform till his death in 1956, Dr.B.R. Ambedkar had constantly been on the forefront of the movement to eradicate birth based oppression where the basic amenities like education, housing choices are restricted for the benefit of the few. With his expertise in world thought and his broad education he accomplished in a short span of time he initiated new ideas in the process of engagement with the learning process. Ambedkar's thoughts are not only limited to the cause for a particular section of the society, but they have been wifully neglected. All this while it is forgotten that the exhaustive text of the Indian Constitution was for all and Ambedkar can be seen as the leader who strongly believed and worked for the secularity of the nation. Equal Opportunity for all Ambedkar, who developed an almost doctrinal belief in the efficacious and transformatory character of education, held that education must be available to all, irrespective of caste or status. “Education is something which ought to be brought within the reach of everyone.” (Ambedkar 1982: 40) He examined the education policy of the British in India and found that Education in India had always remained restricted to the members of the upper stratum of society. Ambedkar’s important contribution to the education sector was his belief that ‘Education is something, which ought to be brought within the reach of every one’. He urged this plea because he felt that, “we are arriving at a stage when the lower orders of society are just getting into the high schools, middle schools and colleges, and the policy of this department therefore ought to be to make higher education as cheap to the lower classes as it can possibly be made.” (Ambedkar 1982: 40-41) Ambedkar was against the great disparity in the advancement in education of the different classes in India. He quoted statics from the report of Education and Hunter Commission to point out that depressed classes are the worst sufferers in education sector in proportion to their population. (For details see Ambedkar 1982: 39-44) He stressed that depressed classes should be treated as minority and similar benefits should also be extended to them as Muslims were earlier given in education sector. He also suggested other pragmatic ways to promote literacy among the depressed classes during the Legislative debate, “The second thing that I wish to say about the depressed classes is that I find a as a certain sum has been set aside in the budget for scholarships for the backward communities.” (Ambedkar 1982: 43-44) During the discussion, Ambedkar also developed logical argument in favour of equality of opportunity to be provided to all the vulnerable communities in the society which can be further developed in the context of different controversies raised on the issue of reservations after independence. “I must here emphasise that this country is composed of different communities. All these communities are unequal in their status and progress. If they are to be brought to the level of equality then the only remedy is to adopt the principle of inequality and to

give favoured treatment to those who are below the level. There are some I know who object to this and adhere to the principle of equality of treatment. But I say Government has done well in applying this principle to the Mohammedans. For I honestly believe that equality of treatment to people who are unequal is simply another name for indifferentism and neglect. My only complaint is that Government has not yet thought fit to apply this principle to the backward classes." (Ambedkar 1982: 42) Primary Education for All Ambedkar was convinced that primary education is very important for the vulnerable sections as it provides them necessary platform to enter into public life. Ambedkar recognized the importance of education in shaping the future and cautioned the underprivileged not to lose any opportunity, 'We may forego material benefits, but we cannot forego our rights and opportunities to reap the benefits of highest education to the fullest extent.' As a member, Ambedkar submitted detailed report about the deplorable condition of the Backward Communities to the Bombay Legislative Assembly, suggesting steps for the prevailing iniquitous educational System. He made a historical appeal for more grants to develop primary education for all sections during 1927 in his Legislative Council Debates in the Bombay Assembly. Ambedkar pointed out that, "The object of primary education is to see that every child that enters the portals of a primary school does leave it only at a stage when it becomes literate and continues to be literate throughout the rest of his life." (Ambedkar 1982: 40) Ambedkar also cautioned regarding the trend of dropout rate at the initial stage, "…if we take the statistics, we find that out of every hundred children that enter a primary school only eighteen reach the fourth standard; the rest of them, that is to say, 82 out of every 100, relapse into the state of illiteracy." (Ambedkar 1982: 40) Ambedkar was also against the commercialization of education and criticized the existing government, "out of the total expenditure which we incur on arts colleges, something like 36 per cent is financed from fees; out of the expenditure that we incur on high schools, something like 31 per cent is financed from fees; out of the expenditure that we incur on middle schools, something like 26 per cent is derived from fees." (Ambedkar 1982: 40) Importance of Higher Education Ambedkar made important interventions during the Bombay University Amendment Act and gave his views on university education that are still very relevant to promote higher education in India. Ambedkar also utilized the opportunity to give suggestions on higher education by submittingwritten evidence before the University Reforms Committee in 1925. "…it must be realised that the University cannot succeed in promoting research or in promoting higher education, if it makes the examination system the be-all and end all of its existence." (Ambedkar 1982: 45-46) According to Ambedkar, "One of the fundamental functions of the University, as I understand it, is to provide facilities for bringing the highest education to the doors of the needy and the poor….I look upon the University primarily as a machinery, whereby educational facilities are provided to all those who are intellectually capable of using those facilities to the best advantage…". (Ambedkar 1982:61) As a result Ambedkar argued for the adequate representation of different communities in the senate to control the university affairs.

He also opposed the distinction between undergraduate teaching and postgraduate teaching. He said, "… if the object of the bill is to promote higher education and research, the best method would be not to separate the colleges from the University as has been done now but to make a synthesis in which the University and the colleges would be partners on terms of equality and would be participating in promoting together, both the undergraduate and the post-graduate studies." (Ambedkar 1982: 48) Ambedkar also stressed the importance of research in the universities. The separation of postgraduate work from undergraduate work means the separation of teaching from research. But it is obvious that where research is divorced from teaching

research must suffer. (Ambedkar 1982: 298). Ambedkar was perhaps the first educationist who wanted power to be given to the academic council in matters of academic affairs in the university. (Quoted in Aryama2007: 348-349) He emphasized that a teaching university should really function as a teachers university in the sense that teachers hold all academic and administrative posts. (For detail see Ambedkar 1982: 292-312) The People's Education Society's objective is not merely to give instructions, but to impart such education as promotes intellectual, moral and social democracy. This is what modern India needs and this is what all well-wishers of India must promote, held Ambedkar. The motto of the People's Education Society is 'Knowledge and Compassion'. The Society had made good progress in this direction; running a number of colleges. (Kadam 1993: 210-211) In brief, the People's Education Society has significantly contributed to the spread of higher education among the vulnerable communities. The colleges gave monthly scholarships, provided cheap accommodation and paid immense attention to student's problems and encouraged progress. On the other hand, the students, after completing their education, have been working in villages and cities in various capacities in various bodies and offices. Ambedkar's voluntary efforts also included educational modernization but he said that it's a task that the state should undertake. Thus, in state socialism, he allocated a major role to the state in discharging its duties in respect of education of the unlettered millions of citizens in the country. (Foe detail see Ambedkar 1979) Ambedkar wrote a letter to one of his father's friends when he was in America to pursue both male and female education in order to live a life of dignity. " We shall soon see better days and our progress will be greatly accelerated if male education is pursued side by side with the female education…"(Keer 1991: 27) Later on, when he came back to India, he continuously advised his fellow brethren to educate themselves and their children. Ambedkar seems to carry forward the legacy of Mahatma Phule on the issue of education for girls. (Pratima 2003: 359) For Ambedkar, education was an important instrument of bringing social change and to help women to alleviate their position. Addressing a gathering of women during the Mahad Satyagraha, Ambedkar advised them, ". …Send your children to schools. Education is as necessary for females as it is for males. If you know how to read and write, there would be much progress. As you are, so your children will be." (Keer 1991: 104)

CONCLUSION

Ambedkar had a deep relation with education and his writings show expertise and indepth analysis of the subject. The great leader has been restricted to the narrow position of being just a Dalit emancipator. His contributions towards education and his vision towards it should be traced and nurtured. Ambedkar realized education to be a priority for the society and for growth of individuals with character. Educational philosophy stresses on development of persons and their environment. Ambedkar also saw education as something that can create radical changes in an oppressed society and create avenues for change which are equal for all. Ambedkar's thoughts resonate with the current academic discourse and hence make him relevant, to bring in a perspective which has been missing. The perspective which is generated through struggled learning. That learning needs to be recognized and captured in textbooks, cutting across boundaries. Meanwhile, teachers and the trainers also need to establish a bond and promote an education that works towards the objectives of self-actualization and a just society. With such collective efforts, education can play a role in the conscientization and creation of citizens who are aware of the perils a society faces, motivating them to challenge its customary norms and practices even when establishing themselves. To contextualize educational philosophy in India

we must remember that learning was barred for a large section of society, wherein the texts and writings which govern them were permitted to be read and to be interpreted by a few born in a specific community. This exclusiveness to a particular community for learning further translated into children from the 'lower' section of the community being kept away from education in order to maintain the purity of the 'sacred learning' of the few. Education can hence create a realization among the masses of them being subjected to a hegemonic force. In a speech at the All India Depressed Classes Conferences on July 1942, he highlighted the considerable progress in education and a greater degree of political consciousness acquired by the Dalits in India. Above all the progress made by the untouchable's women was encouraging and astonishing. Ambedkar has deliberately included Article 45 in the Directive Principles of State Policy that, "the state shall Endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years." The government of India has passed the bill of Right to Education Act 2008 and paid a great tribute to the contributions of Ambedkar to mass education. The policy of the Government of universalization of elementary education focusing particularly on marginalized groups, poorer sections and the girl child, enhancing enrollment in secondary education as well as its commitment to expand education facilities will empower and equip youth to face the future with hope and confidence. There are several challenges to cherish Ambedkar's vision of universal education. There is need to frame such policies starting from the primary stage to the higher stage that help to realize the vision of Ambedkar.

REFERENCES

1. Ambedkar, B.R. (1979), Dr. Babasaheb Ambedkar: Writings and Speeches, Vol.1 (compiled by Vasant Moon), Education Department, Government of Maharashtra, Bombay.

2. Ambedkar, B.R.(1982), Dr. Babasaheb Ambedkar: Writings and Speeches, Vol.2 (compiled by Vasant Moon), Education Department, Government of Maharashtra, Bombay. Aryama and Sukhadeo Thorat (ed.)(2007),

3. Ambedkar in Retrospect: Essays in Economics, Politics & Society,Rawat Publications, New Delhi. Chalam, K.S. (2008), Modernization and Dalit Education, Rawat Publications, New Delhi. Chatterjee. A (2008).

4. Response to 'From Ambedkar to Thakkar and Beyond'. EPW. Vol. XLIII, No. 51. Dewey, John (1916, reprinted in 1997), Democracy and Education: An Introduction to the Philosophy of Education, Simon and Schuster. Encyclopedia of Philosophy of Ed.: www.educao.pro.br/;links.htm. Government of Maharashtra (1982),

5. Babasaheb Ambedkar: Writings and Speeches, Vol. 2, p. 62 Jaideva, Pramanshi &Sanjay Paswan (2002),

6. Encyclopedia of Dalits in IndiaVol. II, Kalpaz Pub. Kadam, K.N.(1993),

7. Dr. B.R. Ambedkar: The Emancipator of the Oppressed, Popular Parkashan Bombay. Keer, Dhananjay (1991).

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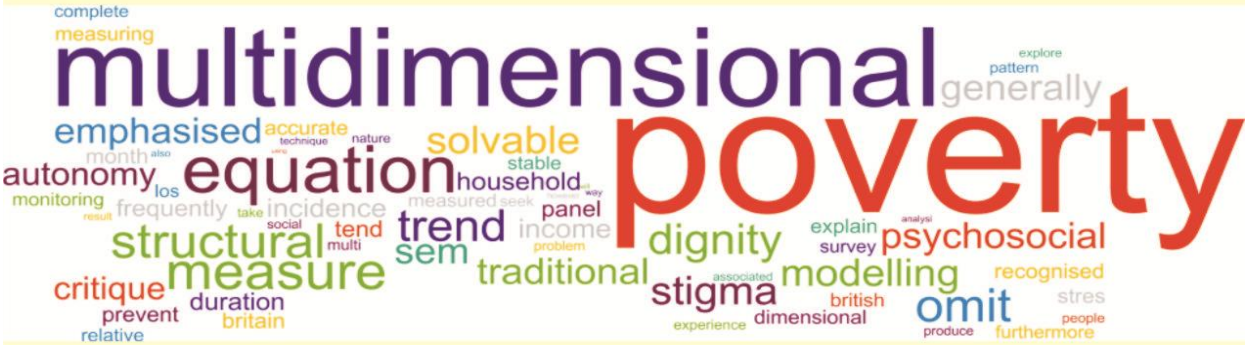

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