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F O R E W O R D

There is no doubt that after independence a large number of people have become highly qualified and successful in their professional life. In the 21st century knowledge-based education has become a commodity. A commodity cannot be a panacea for all round development of the pupils. It is undeniable that in spite of the spectacular progress in various fields of our material life a section of our society is being swept by the storm of western hedonism due to globalization. People of this category are alienated from the rest of the people of our country. Rampant corruption in the society is denying the basic needs to the downtrodden people.

It is true that owing to some lacunas in the field of education these maladies are over flooding our country. To put the society on the right track we are badly in need of, as Swami Vivekananda said, "Man making and character building education".

Educated people cannot deny their accountability to the society. The mission of our journal is to sensitize the educated people, specially the in-service and pre-service teachers so that they can cope with the various problems in the field of education without disowning our heritage.

The Anwesa has tried to explore different aspects of education in an innovative way. We hope its endeavour will be the fountain of inspiration to those who are concerned with education.

22nd June, 2013

Swami Kedaratmananda

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Content

Use of Structural Equation Modeling (SEM) in Educational Research

Dr. Madhumala Sengupta

Pintu Kumar Maji

....

1-7

Education in the 21st Century : Thoughts and Realities

Dr. Subimal Kumar Chatterjee

....

8-15

Action Research The Search for Meanings

Dr. Sudip Chaudhuri

....

16-23

Understanding Climate and Climate Change in the Perspective of Environmental Education for Social Development

Dr. L. N. Satpati

....

24-29

A Study on Relationship among Attitude towards Environment, Environmental Awareness and Achievement in Environmental Education at Higher Secondary Level in West Bengal

Dr. Goutam Chakraborty

....

30-35

Values to Value in Education

Dr. Mousumi Borai

....

36-42

**The Significance of Integrating ICT Training in the B.Ed.
Curriculum : A Study on the Teachers' Attitude**

Dr. Piku Chowdhury

....

43-47

**The effect of intelligence and Socio-Economic Status on
achievement in History with special reference to
hearing Impaired Students at Secondary Level**

Debnath Das

Rajiba Lochan Mohapatra

....

48-57

School Refusal : A Problem and its Solutions

Sucharita Roy Chowdhury

....

58-61

Language Learning and Language Acquisition

Malayendu Dinda

....

62-80

Book Reviews

Suvashree Roy Chowdhury

....

81-82

English & English-medium Schools

Sudipta Ghosh

....

83-85

From the Editor's Desk

We are happy to bring out the 8th volume of *Anwesa : A Journal of Education* in 2013. The present volume contains ten articles on different topics. Some of these articles are research papers of high quality while others are expository in nature. Among the research papers based on survey, one paper by Dr. Goutam Chakraborty deals with a study on relationship among attitude towards environment, environmental awareness and achievement in environmental education at higher secondary level in west Bengal. Another article on environmental issues is written by Dr. L.N. Satpati who looks at climate and climate change from the perspective of environmental education for social development. Dr. Piku Chowdhury, on the other hand, deals with the significance of integrating Information Communication Technology (ICT) training in the B.Ed. curriculum. This is, in fact, a study on the teachers' attitude towards the use of ICT in the B.Ed. classroom. Rajiba Lochan Mohapatra and Debnath Das examine the effect of intelligence and socio-economic status on achievement in History with special reference to hearing impaired students at the secondary level.

Dr. Madhumala Sengupta and Pintu Kumar Maji have discussed the use of Structural Equation Modelling (SEM) that can be used in educational research. This article presents a brief conceptual introduction to SEM. It is a powerful statistical technique which is now being used in different branches of social sciences including Education. This theory may be new to many of us and everybody will be benefitted if we read them with care.

Value education continues to be an important pre-occupation among the teachers and teacher-educators. In the present volume of *Anwesa* readers will find two articles on value education, one deals with "Values to Value in Education" and the other is a deeply thought-provoking article on "Education in the 21st Century". The first article is written by Dr. Mousumi Borah and the second one by Dr. Subimal Kumar Chatterjee. These two articles are worth reading.

Dr. Sudip Chaudhuri has picked up the issue of action research, an important issue in current B.Ed. syllabus. He has tried to show the validity of the concept of the "teacher as researcher" in his article.

Smt. Sucharita Row Chowdhury is interested in problems related to schools and school children. She highlights the problem of school refusal and discusses its solutions. This volume also contains one article on language learning and language acquisition. This article deals with the concepts of learning and acquisition in the context of language teaching, especially English.

Since 2011 we have started a new column for writing comments and opinion on the present day educational problems. Sri Sudipta Ghose, an ex-student of R.K.M. Brahmananda College, Rahara, has volunteered to write some comments on our educational problems. We have also started a new section called "Book Review". In this section one can write a review on any recent book on education. Ms. S. Roy Chowdhury has studied a book critically and makes comments on it.

Now in the end I can only hope that all the articles, comments and book review included in this volume of *Anwesa* will be helpful to the teachers, teacher-trainers, researchers and scholars. So I must thank them all who have contributed well thought-out articles for our journal. Here I also acknowledge the assistance of the Principal of our college and my colleagues (especially Dr. Kousik Chattopadhyay) who have extended their helping hands in every possible way to bring out this volume of *Anwesa*.

Rahara
June 26, 2013

Malayendu Dinda

Use of Structural Equation Modeling (SEM) in Educational Research

*Dr. Madhumala Sengupta **
*Pintu Kumar Maji **

Abstract

This article presents a brief conceptual introduction to structural equation modeling (SEM). SEM is a powerful statistical technique which is being applied in different branches of social sciences including researches on education. SEM as a comprehensive statistical approach seeks to test hypothesis about the relationship among observed and latent variables. SEM is an applied form of multivariate statistical analysis where the cause and effect relationships among variables are shown. SEM is communicated by picture or diagram called path diagram. In this paper we have focused on the definition of SEM, its historical development and its relation with traditional statistical techniques like regression analysis, multivariate analysis and path analysis. The steps in SEM are discussed in short with different indices of fit measure. Several software programs are available, some of which are LISREL, EQS and Amos etc. Finally the rationale of its use in educational research is mentioned with the possible misuse of this technique.

Key Words : Amos Software, Covariance Structures, Path diagram & Structural Equation Models.

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Introduction

The structural equation modeling (SEM) is a general approach to multivariate data analysis. SEM depicts the linear relationship among the measured variables and also is concerned with cross sectional statistical model testing. It is a simple statement of verbal theory that makes explicit the hypothesized relationship among a set of studied variables (*Marcoulides, 1989*). SEM is a methodology in which the series of hypothesized cause and effect relationships are explained by parameters. The parameters are essentially the effect of independent variables on dependent variables. Thus by SEM a theoretical model is transformed into mathematical model which can be tested.

Hoyle (1995) had defined SEM as a comprehensive statistical approach to test hypothesis about the relationship among observed and latent variables. According to *Rigdon (1998)* SEM is a methodology for representing, estimating, and testing a theoretical network of (mostly) linear relations between variables while *MacCullum and Austin (2000)* maintained that it tests hypothesized pattern of directional and non-directional relation between a set of observed and latent variables. SEM consists of measurement model and structural model. The measurement model depicts the relationship among the variables. The structural model shows the direction and strength of relationship of variables.

History of SEM

Wright (1918), a biometrician first conceptualized SEM and used path method to study the genetic theory of biology. Later on in the 70s it was introduced in the research fields of economics and sociology. Gradually other disciplines psychology, political science and education started using this methodology (*Kenny, 1979; Wats and Linn, 1970*). SEM has spread gradually in other disciplines like communication science and operations management. Its popularity is attributed to recent development of softwares like LISREL, AMOS, EQS, and MPLUS. *Hershberger (2003)* studied the research studies on social sciences between 1994-2001 and found that 60% of the studies used SEM.

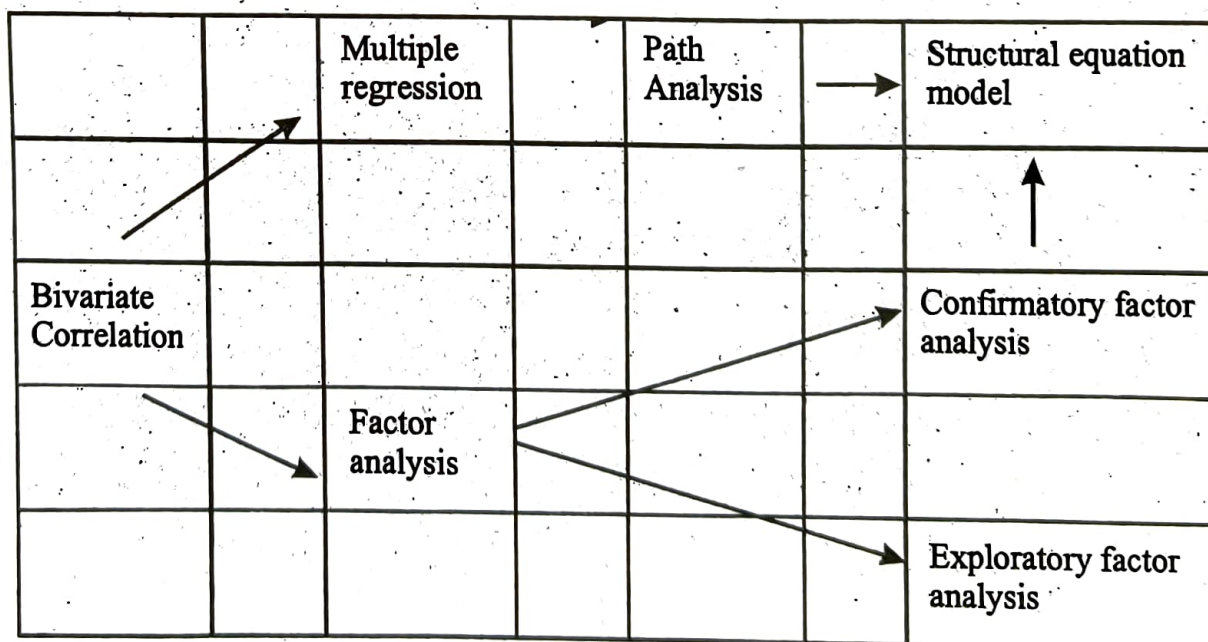
Relation of SEM with Traditional Statistics

Path analysis was the precursor of modern day SEM. SEM still starts with path analysis. Thus path analysis is a special case of SEM. It is customary to communicate a SEM model by drawing a picture of it (*Marcoulides and Hershberger, 1997*). Unlike SEM, path analysis is only a structural model without measurement model. PA is concerned with causal modeling approach than correlative approach. Correlation and regression analysis are traditional statistical techniques but they are similar to SEM in some ways. Both SEM and regression and correlation are based on linear statistical models. One of the assumptions of regression and correlation is that of normal distribution. SEM also assumes multivariate normality. Both the methods of regression and correlation fail to offer a test of causality. But the differences between the two methods are

also apparent. Path analysis is highly flexible and comprehensive in nature. It is a convenient tool for investigating phenomena like environmental awareness and action, self efficacy, motivation and other psychological constructs. Another point of difference is that regression methods specify default model and offers few limitations regarding the relationships among the variables. But in SEM the researcher specifies a hypothesized model which is supported or rejected by it depending on appropriate specification. In regression analysis dependent and independent variables are fixed whereas in SEM an independent variable may be independent in another equation and vice versa. Most importantly the regression analysis considers measurement is error free when SEM indicates the error or unexplained variances. SEM offers a number of tests to determine and evaluate model fit e.g. Chi- square, comparative fit index, Root Mean Square Error of Approximation etc. Regression only offers one test of significance and presents the relation diagrammatically.

Path analysis is a subset of SEM. SEM is an applied form of multivariate statistical analysis where the cause and effect relationships among variables are shown. SEM is communicated by picture or diagram called path diagram. The proposed model is presented in a graphical form and tested for model fit. The objective is to examine the causal relationship between two or more variables based on linear equation system. However, path analysis really cannot prove causation. SEM is an extension of multiple regression analysis but a difference between the two techniques is that regression analysis considers only observed variables whereas SEM takes into account the variables that have not been directly measured. These unobserved variables are calculated on the basis of the relation among a set of measured variables.

The relation among the different statistical techniques is shown below -

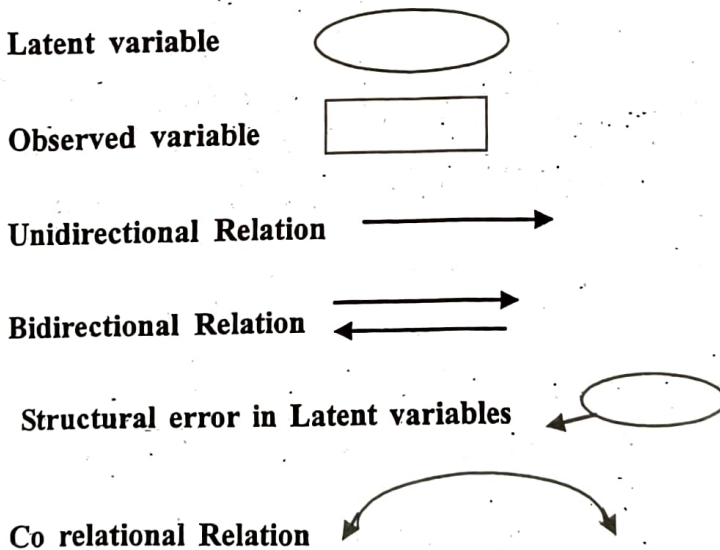


So it can be said that traditional data analysis methods specify default model, assume measurement occurs without error and to some extent inflexible. On the other hand SEM specifies model based on theory and research incorporating measured variables and latent constructs. It also specifies measurement error. The SEM can identify the imperfect nature of measurement by specifying measurement errors. The traditional statistics provide straight forward significance test to show group difference. But SEM does not indicate such straight forward test rather multiple tests like chi square, Comparative Fitness Index (CFI), RMSEA (Root Mean Squared Error of Approximation) etc and some more indices for model evaluation.

SEM terminology

In SEM nomenclature the dependent variable is known as endogenous and independent variables are exogenous. SEM is an extension of multiple regression analysis but a difference between the two techniques is that regression analysis considers only observed variables whereas SEM takes into account the variables that have not been directly measured. These unobserved variables are calculated on the basis of the relation among a set of measured variables.

This graphical forms use some graphical notations given below (*Marcoulides and Hershberger, 1997*)



SEM is a family of statistical techniques. Despite the variations in techniques generally the following steps are adopted while using this technique-

Model specification

This is the stage when the model is formally stated. A-priori hypothesis is formulated and parameters are determined as fixed or free. That is a structure or model is specified. At this

stage the relation among latent variables and how they will be measured are specified. This is the most important and most difficult phase because the computer programming cannot help the researcher in this matter. He has to utilize his knowledge gained from literature review and relevant theories. If the wrong measured variables are chosen to reflect latent ones then the model cannot be specified. This hierarchy based model is pictorially presented with a series of equations. A good model should be parsimonious, theoretically justified and should reproduce the underlying correlation matrix based on constraints imposed. In the next step a path diagram is drawn showing a causal relation. In this stage exogenous and endogenous constructs are defined and they are linked in a specified manner.

Model identification

Model identification means whether there are sufficient equations to solve each of the coefficients (Unknown) to be estimated. A researcher will always want to have an over identified model. There are three types of model identification. Under identified models are those where one or more parameters from observed variance covariance matrix cannot be estimated. Most computer programme will not identify under identified model. This type of model identification is considered to be uncertain. A just identified model is also known as saturated model where all uniquely estimable parameters are utilized. It fits the data perfectly. However, the most desirable model is over identified where the number of available variance covariance is greater than the number of parameters to be estimated. That is more equations than estimated coefficients and degree of freedom greater than zero are available. In SEM ideally model should be over identified. AMOS software can detect and notify a range of model identification problems.

There are recursive and non-recursive models in SEM. Recursive models are described as model with unidirectional influences. The non-recursive models depict reciprocal causation, feedback loops or they have correlated disturbances (Bollen, 1989; p. 83).

Estimate

SEM computer programmes have maximum likelihood estimate by default. In ML estimate all estimates are calculated all at once. It specifies whether observed covariance is drawn from the population (expected covariance). ML is also appropriate for non-normally distribution or in case of small sample size.

Tests of fit

There are a number of indices of model fit. Chi square is badness fit index, the smaller the value the better is the fit index. There are other indices like CFI, RMSEA which have been mentioned earlier. It is often problematic to select appropriate fit statistics.

Respecification

If the model is bad fit the question of respecification comes up to develop better model fit. The SEM programmes provide a set of modification indices along with their outputs suggesting changes for good model fit. However pruning co variances should be undertaken cautiously so that changes make theoretical senses.

Uses of SEM in educational research

In educational research, the use of SEM is likely to be beneficial as it explores the latent variables and in this kind of research i.e. in education many variables are latent. Latent variables are abstract psychological constructs like self efficacy, environmental awareness etc. To measure such variables different types of errors may contaminate the result. SEM deals with two types of variables namely observed and latent variables. Observed variables are measured from the responses obtained from data and mostly continuous. However, latent variables cannot be directly observed. In SEM the models are set and latent variables are expressed in terms of observed variables. SEM, while dealing with model measurement error, gives an unbiased estimate of the relation between latent constructs. Besides multiple measures of a single latent construct is possible in SEM

Conclusion

It has already been mentioned that in educational researches most variables are abstract and difficult to measure. In these types of research understanding of indirect effect is important. As a matter of fact true role of education is not a pure direct effect. Educational researches need to construct hypotheses which evaluate all three types of direct, indirect and total effects of the variables which can be realized in a better way by SEM. The SEM is a powerful tool and now a days it is easy to apply due to availability of software. However, the misuse of technology has also been reported. The two issues in this regard are normality assumptions and sample size. Besides in educational research most researches are non experimental in nature. Hence it is difficult to ascertain causal model. *Cliff* (1983) had identified some fallacies related to causal interpretation of co relational data. Besides, model may be corroborated by measured data but may not be proven because there may be other competing models which may also be accepted. The results of comparison with competing model will give a more convincing interpretation of the model.

REFERENCES

Bollen, K.A. (1989). *Structural Equations with Latent Variables*. New York: Wiley.

- Bollen, K. A. (2002). Latent variables in psychology and the social sciences. *Annual Review of Psychology*, 53, 605-634.
- Cliff, N. (1983). Some cautions concerning the application of causal modeling method. *Multivariate Behavioural Research*, 18, 115-127.
- Hershberger, S. L. (2003). The growth of structural equation modeling: 1994-2001. *Structural Equation Modeling*, 10(1), 35-46.
- Hoyle, R. H. (1995). The structural equation modeling approach: Basic concepts and fundamental issues. In *Structural equation modeling: Concepts, issues, and applications*, R. H. Hoyle (editor). Thousand Oaks, CA: Sage Publications, Inc.
- Kenny, D. A. (1979). *Correlation and causality*. New York: Wiley
- MacCallum, R. C., & Austin, J. T. (2000). Applications of structural equation modeling in psychological research. *Annual Review of Psychology*, 51, 201-226.
- Marcoulides, G.M. (1989). Measuring Computer Anxiety: The Computer Anxiety Scale. *Educational and Psychological Measurement*, 49, 733-739.
- Rigdon, E. E. (1998). Structural equation modeling. In *Modern methods for business research*, G. A. Marcoulides (editor). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers, pp. 251-294.
- Werts, C. E., & Linn, R. L. (1970). Path analysis: Psychological examples. *Psychological Bulletin*, 74, 193-212.
- Wright, S. (1918). On the nature of size factors. *Genetics*, 3, 367-374.
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Education in the 21st Century : Thoughts and Realities

*Dr. Subimal Kumar Chatterjee**

Abstract

In the 21st century changes in the perspectives of education have been noticed. Effects of globalization have been witnessed by one and all at each and every level of education. Provisions created in Right to Education Act, recommendations of Knowledge Commission, International Conference on Secondary Education, WTO Conference (Paris), Conference on Higher Education etc. were taken into consideration to make education more effective for strengthening quality of manpower. In this article a general discussion has been presented to critically evaluate performance of India in the backdrop of thoughts and realities.

Key Words : Globalization, Knowledge Commission, Quality Manpower, Right to Education Act, 21st century,

Introduction

Thoughts about educational needs suitable for 21st century sprang up in the mindset of educationists, policy makers and researchers in the later part of 20th century which were reflected in the National Education Policy of 1986 and its Programme of Action (1992). Proposed changes and guidelines were discussed and subsequently publicized as recommendations of International Conference on Secondary Education at New Delhi (1993), WTO Conference at Uruguay (1994) and International Conference on Higher Education at Paris (1998). Keeping apart the level-wise issues, the basic features of the recommendations were more or less similar. The key points highlighted were directed towards creation of strong and dynamic education system through which man-power would be trained. It was desired that the educated youth would not simply obtain degrees in different disciplines but they would be able to meet the challenges of the changed perspectives in education sector, man-power, social as well as national developments, restoration of values for peace, harmony and national integration, national /

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international relations and understanding and such other issues which were essential for upliftment of India from the status of a developing country to a developed country. To reach this level, proper human resource development comparable to international standard must be achieved for obvious reasons. Let us examine the present situation from the basic level.

Primary Education

Let us go back to 1990, the year designated as International Literacy Year jointly by UNDP, UNESCO, UNICEF and World Bank when the slogan "Education for all" was raised. When some of the developed countries have fulfilled their mission, in India it is still a dream to come true. In spite of the fact that education is a constitutional right for all Indians, in the recent past, on 5th August, 2009 a bill for Indian Children in the 6-14 age group was passed in Lok Sabha. The bill entitled "The Right of Children to Free and Compulsory Education Bill, 2008" has been drafted in a manner so that after proper implementation and follow up, children irrespective of caste, creed and financial status can have elementary education. In addition to the existing lacunae and obstacles in the form of financial crisis, lack of resources, and physical infrastructure; increasing population, true willingness of involved manpower; illiteracy, lack of awareness and low socio-economic status of parents are the prominent issues which debar children from going to school. Such parents willingly engage their children in other activities through which they earn insufficient quick money. Even arrangements of mid-day meals in schools have not been proved as an effective measure to involve sufficient students in school education. A survey report of CRY (Child Rights and You) reveals that about 30 million of Indian children never see schools. In spite of the rise in gross enrolment ratio in primary education, significant drop-outs at stages have made the picture quite gloomy.

Schools imparting primary education are of varied nature. Some are managed and administered by government, others by trust bodies, government sponsored bodies and private entrepreneurs. Nature of teaching-learning system depends on the affiliating bodies as well as school management. Quantum of financial involvement varies with status. Guardians of the children studying in such schools often have to pay heavy amount towards fees and other charges which may not be possible for those who do not belong to well-to-do families. As a result, difference in training level occurs amongst those who have completed elementary or primary education curriculum : one group receive basic education through traditional system because of poor and backdated infrastructure in the teaching-learning system; the other group enjoy the benefit of most modern technology based teaching methodology. It is difficult to ascertain learning difference if any but psychological impact on students matter.

Secondary Education

One of the pre-requisites for entering into the secondary education sector of 21st century was development of capability to keep pace with rapid outburst of new knowledge and simultaneous obsolescence of old and traditional knowledge. Gathering of new knowledge, skill development and self learning were stressed. What to learn, how to learn, how and where to apply the new knowledge – these issues were highlighted to make students understand that after completing 12 years of school studies they will have to be turned into their own teacher for planning the future goal and career. Vocational streams were introduced at this stage with a view to create scope for those secondary students who were willing to opt for vocational training as a pre-requisite to self-employment.

Restructuring and modernization of curriculum was urged upon to make it more dynamic and multi-dimensional. As done in some African and South American countries, creation of scope for students to gather earning experience with learning schedule was desired. Use of audio-visual aids, technology supported teaching-learning system, change in the evaluation system, continuous monitoring system, introduction of subjects like environmental education, population education, life-cycle education, technology education etc. were prescribed by the educationists and policy makers. Time bound revision of secondary curriculum to bring uniformity in standard all over India, repetition of topics at different levels of secondary stage, justifying linkages with higher education, maintenance of quality are also the vital issues for consideration. International trends are to be looked into for introduction of relevant thoughts at secondary stage in Indian education curricula considering need and feasibility. To be more precise, keeping in view the changing perspectives after globalization of education, internationalization of secondary education was slowly and steadily urged upon. Not just blind imitation of European system of education but inculcation of quality thoughts in the mind-set of Indian students was desired. I feel proud to mention that this was the view of Swami Vivekananda, obviously a great educator of all time.

Higher Education

If one considers steps of manpower development, primary and secondary education systems are to be designated as pre-primary and primary steps. Higher education is the final stage where the colleges, universities and research institutions are the educational institutions cum training centres and nation as a whole is the target area for application of knowledge based skills. Performance of manpower towards social and national developments is the yardstick by which one can evaluate their capability to meet the challenges of 21st century in the global world. It is known that after obtaining degrees in higher education, young graduates and post-graduates

either opt for traditional service sector or go for research activities. Hence educationists and education-planners made some well thought recommendations for upgradation, modernization as well as improvement of higher education. Some of such recommendations are :

- 1) Enhancement of access, equity and quality control;
- 2) Multidisciplinary approach in curriculum framework and introduction of new subject areas; vocationalization;
- 3) Selection of specialization, research areas and developmental projects considering need of the time and social relevance;
- 4) To give weightage in technology supported education, technology in education and technological education;
- 5) Strengthening of Distance Education Centres, Academic Staff colleges and monitoring bodies, stress on privatization;
- 6) Serving the unserved areas to minimize regional imbalance;
- 7) Resource mobilization and resource generation;
- 8) Strengthening of Faculty improvement programme;
- 9) Strengthening of Industry-institute linkages;
- 10) Restoration of values, standardization of performance and accountability;
- 11) Strengthening of Teacher Education, Management Education, Medical Education in the light of current national needs and international trends;
- 12) In addition to the above recommendations any other suitable need based measure may be taken so that we can have such 'Quality Manpower' who can face and tackle the challenges of 21st century.

A Critical Appraisal of the Present Scenario

Since independence we have with us bunches of recommendations from different education commissions, policy framing bodies, seminars, workshops, conferences – at both national and international level. Some of such recommendations were implemented and others left for consideration in due course mostly on the pleas like shortage of fund, disagreement amongst policy makers and political interference. The last one seems to be the strongest issue which often stood on the way of implementation of vital recommendations. After sixty-five years of independence, a good number of Indians are unable to sign their names and use their thumb impression. In the present century, knowing the alphabet is not literacy. We require more functional literates who can utilize literacy for earning their livelihood. Meagre enrolment at elementary education level and significant dropout at secondary stages are causes responsible for release of functional literates in limited number. Mushrooming of private English medium schools imparting instruction at primary and / or secondary level has been permitted by concerned

government more for their own political interest and financial benefit of the management. In such schools proper elementary training by competent trained teachers is often lacking. Exceptions are there. Other schools follow traditional teaching-learning system. Thus the basic raw materials or the students from primary level who opt for admission in secondary schools do not always belong to quality category. As a result pass outs from secondary schools in spite of obtaining high percentage of marks in their final examination fail to prove themselves when they reach the first step of higher education – the graduation level.

It is known that in India there is no uniformity in curriculum structure at any level. Many new interdisciplinary courses like information technology, computer application and engineering, biotechnology, microbiology, bio-informatics, bio-medical engineering etc. have been introduced in many private colleges some of which do not have sufficient quality infrastructure. It is true, where basic physical infrastructure exists, quality teachers are lacking. In our country, need for privatization has been so highlighted that anybody leading a team of financiers submit proposal to the concerned government, seek permission for opening a college, get it within a short time after observing some stipulated formalities. Such colleges sometimes starve for students, mostly starve for duly qualified teachers and proper infrastructure. As a result quality teaching remains a dream. Though some of the students secure high marks at the end of the final examination, their level of acquisition of knowledge and extent of understanding of the subject are often found below the desired standard. Mushrooming of teacher training institutes under private management is in my opinion a growing problem for the forthcoming days. Scarcity of qualified teachers (as per NCTE norms) for imparting instruction in these colleges is a major problem. In training colleges development of infrastructure as per present trends, teaching practices in schools following proper stipulations, imparting instructions in subject areas (both theoretical and practical) following prescribed methodology, participation of trained teachers in seminars and workshops – all these needs are mechanically processed. As a result what we get at the end of academic session is a group of B.Ed. and / or M.Ed. degree holders, not a bunch of committed well trained teachers / teacher-educators who can act as king pins of education system. Same is true for management education, technical education, medical education and other such areas. What we desire is quality manpower, skilled professionals and dedicated soldiers in the education sector. We are unfortunate to have at the end some graduates and post-graduates whose only target is to get a safe job against fabulous salary.

In between 1951 and 2008, the number of colleges and universities rose to 20676 and 500 respectively. During the last four years spanning from 2008 to 2012 I am sure that the number of institutions has increased to certain extent. Keeping in view the continuous population

explosion, numerical increase in educational institutions is necessary. But the truth that unlimited quantitative expansion stands on the way of maintenance of quality can not be denied. In such a crucial situation quality control is a difficult task for so many factors like lack of quality infrastructure (both physical and manpower), financial shortage as well as misuse, lack of dedication and accountability of involved manpower, logical and strict administration, lack of value based thoughts of management and all stakeholders of the system and absence of continuous surveillance by competent monitoring bodies. Other than internal monitoring system, approval bodies like UGC, CSIR, ICAR, IMC, AICTE, NCTE and especially National Assessment and Accreditation Council (NAAC) were constituted for quality assessment and assurance as well as suggesting a number of 'do's and 'do not's to follow judiciously. But we have not observed any effective implementation. This is the general picture. There are schools, colleges and academic institutions where quality in teaching, administrative and related areas is truly maintained by the internal management who do not compromise with any type of pressure, power and politics. The number of such institutions is limited.

Side by side with quantitative increase in the number of institutes for higher education, the concept of Distance Education has also been accepted throughout the world. India has also made significant advancement with this new system of transmission of higher education to the remote areas. Since the establishment of Andhra Pradesh Open University in 1982 (the first open university in India which was subsequently renamed as Dr. B.R. Ambedkar Open University), followed by establishment of IGNOU at Delhi in 1985, a number of institutes in the form of Distance Education Directorate, Open Universities and such others have been established and activated. These institutes either follow fully advanced technology supported teaching-learning system or printed study materials and PCP (Personal Contact Programme). The number of enrolment in these institutes is gradually increasing but quality of the system as well as degree holders / pass outs is not still beyond question. Though education through distance mode mostly centre around Post-Graduate courses, some institutes offer undergraduate courses as well. Recently a proposal has been floated by some state governments to allow B.Ed. course or identical teacher education programme through distance mode. It is difficult to say whether such a decision will be approved by NCTE or not. But I personally having more than forty years experience as a teacher-administrator in B.Ed. training and many other academic areas do believe that introduction of teacher education / teacher training programme through distance mode at UG / PG level will make no positive impact on quality of teaching-learning-training system.

Concluding Remarks

It is difficult to do proper justice to the title of the present topic in full within the

framework of a single article of standard length. The word education has so many dimensions and diversifications to deal with. Without elaborating further it will be nice to draw conclusion to the present discussion mentioning a few salient points as follow :

1) It was stressed in the National Knowledge Commission Repot (2007) "The Central Government must provide the bulk of the additional funds required to ensure the "Right to Education". UNESCO in its 2003 report emphasized that higher education should be internationalized but should not be commercialized. In the said report it was urged upon that "Education in a globalized society should assure equality of access and respect cultural diversity as well as national sovereignty".

2) Every now and then we use to quote Swami Vivekananda in our lecture or writings but never try to apply his thoughts about value based culture of ancient India. According to him educational raw materials already contained in man are to be utilised for creating quality manpower, character building, for increasing strength of mind and expansion of intellect. He never thought of acquisition of consciencesless knowledge or filling ones brain with lots of information only.

3) The realities are painful. There is no doubt that our educational thoughts, planning and the running system have undergone changes to meet the need of 21st century but not to the desired direction and level. Joseph Stiglitz, a great noble laureate economist and former director of World Bank have rightly pointed out that many countries many not be able to enjoy the benefit of globalization. In spite of all efforts, India is marginally benefitted. We have promoted uncontrolled privatization, created limited scope for use of technology, failed to implement most of the directives and / or recommendations of policy making bodies (national and international), failed to restrict political interference, technocrat-bureaucrat-educationist conflict, regional disparity and socio-economic imbalance and such other issues which directly or indirectly influence not only educational upgradation and modernization but also national development. Cost of education is gradually increasing for common people and often become unaffordable for a larger segment of learners. Central and state governments often openly declare their inability to allocate more fund for the institutions. Resource generation for the purpose is inadequate. Involvement of non-government organizations for educational betterment of the country is insufficient. To cope with the changing perspectives of education in general in the present century it was urgently required to have uniformity in thoughts and activities throughout India, dedication of all the stakeholders and time bound implementation of suitable value-based policies in the backdrop of ground realities. We are still lagging behind many of the developed, even some developing countries also.

REFERENCES

- Banerjee, D., Maji, P. K. and P. Das (2008). Globalization and the Challenges of Higher Education : An Opinion Survey in West Bengal. *Anwasha*, 3: 41-46.
- Bhattacharyya, B. B. and C.T. Bhunia (2007). Threats and Opportunities in the Higher Education in the Context of GATS. *Education in India*, 4: 91-95.
- Chatterjee, S. K. (2005). Aspects of Qualitative Challenges in Indian Education : A General Approach. *University News*, 43(17): 11-17.
- Chatterjee, S. K. (2009). Educational Scenario in India in the Light of Globalization. *University News*, 47(47): 16-20.
- Deshmukh, V, (Ed.) (2012). *Education for Human Resource Development*. (Edited Volume), Atlantic : New Delhi, 110002.
- Gosai, M.R. (2009). The Recent Right to Education and the Present State of Primary Education. *University News*, 47(47): 1-6.



Action Research The Search for Meanings

*Dr. Sudip Chaudhuri **

Abstract

Action research is generally defined as a form of educational research wherein a professional, actively involved in practice, engages in systematic, intentional inquiry into some aspect of that practice for the purpose of understanding and improvement. It is a continuous learning process in which the researcher learns and also shares the newly generated knowledge with those who may benefit from it. Action research is a methodology which has the dual aims of action and research. However, it is possible for action to inform understanding, and understanding to assist action. The purpose of action research is to solve classroom problems through the application of scientific methods. It is concerned with a local problem and is conducted in a local setting. It is not concerned with whether the results are generalizable to any other setting and is not characterized by the same kind of control evidence in other categories of research. That is why, its findings are to be evaluated in terms of local applicability, not universal validity. Action research can be applied to three phases of instruction—planning, instruction, and evaluation. Action research constructs theory from practice and accordingly it can be useful in real problem-solving; i.e. there are opportunities for theory to emerge from the research rather than always follow a previously formulated theory.

Introduction

Doing a piece of research on how to enhance the learning opportunities of students is the most rewarding experience of any teacher. In the past few years, action research has become increasingly popular as a mode of research among practitioners. Doing action research facilitates evaluation and reflection in order to implement necessary changes in practice – both for an individual and within an institution – with increased understanding and confidence. Evaluating one's own practices is an integral part of an applied discipline such as education (Calhoun,

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2002). Introducing secondary school teachers of our country to action research can help them develop professionally through reflection, inquiry into practice, and connecting theory and practice. When teachers learn they are capable of transforming student learning by researching their own practice, their conceptual understanding of teaching and learning changes. The teacher education programs provide authentic opportunities for secondary school teachers to explore and expand their practice in order to meet student needs through such vehicles as action research.

What is action research ?

A Comprehensive Definition

As the name suggests, action research is a methodology which has the dual aims of action and research...

action — to bring about change in some community or organization or programme

research — to increase understanding on the part of the researcher or the client, or both (and often some wider community)

There are in fact action research methods whose main emphasis is on action, with research as a fringe benefit. At the extreme, the "research" may take the form of increased understanding on the part of those most directly involved. For this form of action research the outcomes are change, and learning for those who take part. In other forms, research is the primary focus. The action is then often a by-product. Such approaches typically seek publication to reach a wider audience of researchers. In these, more attention is often given to the design of the research than to other aspects. In any event, the whole purpose of action research is to determine *simultaneously* an understanding of the social system and the best opportunities for change.

In both approaches it is possible for action to inform understanding, and understanding to assist action. Both approaches should try to assure both action and research outcomes as far as possible. It can be modified whatever direction best suits one's own circumstances.

Much of the literature on action research emphasises the practical nature of this type of research. It deals with the practices of people, quite often within their settings. Its main purpose is to improve practice – either one's own practice or the effectiveness of an institution. Action research is a constructive enquiry, during which the researcher constructs his or her knowledge of specific issues through planning, acting, evaluating, refining and learning from the experience. It is a continuous learning process in which the researcher learns and also shares the newly generated knowledge with those who may benefit from it.

Action research is generally defined as a form of educational research wherein a professional, actively involved in practice, engages in systematic, intentional inquiry into some aspect of that practice for the purpose of understanding and improvement (Cochran-Smith &

Lytle, 1990; Kemmis & McTaggart, 1988; Sagor, 1992; McNiff, 2002). Simply stated, action research looks for answers to the question, 'how do I improve my work?'. It is designed to uncover effective ways of dealing with problems in the real world. According to Best and Kahn (2009) action research is focused on immediate applications, not on the development of theory or on general application. It has placed emphasis on a problem here and now in a local setting. Its findings are to be evaluated in terms of local applicability, not universal validity. Its purposes is to improve school practices and at the same time, to improve those who try to improve the practices, to combine the research processes, habits of thinking, ability to work harmoniously with others, and professional spirit (Best and Kahn; 2009). Thus, action research is a means by which concerned school personnel can attempt to improve the educational process, at least within their environment. Thus, action research is research undertaken by practitioners in order that they may attempt to solve their local, practical problems by using the method of science.

This kind of research is not confined to a particular methodology or paradigm. For example, a study of the effectiveness of training teenage parents to care for their infants. The study is based on statistical and other evidence that infants of teenage mothers seemed to be exposed to more risks than other infants. The mother and children were recruited for participation in the study while the children were still in neonate period. Mothers were trained at home or in an infant nursery. A controlled group received no training. The mothers trained at home were visited at 2-weeks interval over a 12-month period. Those trained in nursery setting attended 3-days per week for 6 months, were paid minimum wage, and assisted as staff in centre. Results of the study suggested that the children of both group of trained mothers benefited more in terms of their health and cognitive measures than did the controlled children. Generally greater benefits were realized by the children of the mothers trained in the nursery than the mothers trained at home.

Thus the study shows that such researches have direct application to real world problems. Second, elements of both quantitative and qualitative approaches can be found in the study. For example, quantitative measure of weight, height, and cognitive skills were obtained in this study. Third, treatments and methods that are investigated are flexible and might change during the study in response to the results as they are obtained. Thus, action research is more systematic and empirical than some other approaches to innovation and change, but it does not lead to careful controlled scientific experiments that are generalizable to a wide variety of situations and settings.

Hence, the purpose of action research is to solve classroom problems through the application of scientific methods. It is concerned with a local problem and is conducted in a local setting. It is not concerned with whether the results are generalizable to any other setting

and is not characterized by the same kind of control evidence in other categories of research. The primary goal of action research is the solution of a given problem, not contribution to science. As a consequence a common criticism of action research is its lack of generalisability, i.e. external validity. To some extent this is true. The harder you try to find an explanation which fits a specific situation, the more likely it is to differ from what would suit a different situation (Chaudhuri, 2013). Some literature (Kirk and Miller, 1986; Elliott, 1991) reverses the argument. Qualitative research, Kirk and Miller argue, has an ecological validity which quantitative research lacks. However, Kirk and Miller do acknowledge a trade-off between reliability and validity. At least an issue underlying the generally-held principle is revealed. With the above statements in mind, action research may be defined as an enquiry, undertaken with rigour and understanding so as to constantly refine practice; the emerging evidence-based outcomes will then contribute to the researching practitioner's continuing professional development. The purpose of action research is to facilitate practitioners to study the aspects of practice in assessing and reflecting on the effectiveness of existing practice, with the view of improving practice; i.e. to learn from your experience, and apply that learning to bring about change. As the dynamics of a social system are often more apparent in times of change (Lewin, 1948), learning and change can enhance each other.

Characteristics of action research

Action research is defined above as a form of research intended to have both action and research outcomes (Koshy, 2005). This is a minimal definition. Various writers add other conditions. Almost all writers appear to regard it as cyclic (or a spiral), either explicitly or implicitly. At the very least, intention or planning precedes action, and critique or review follows (Figure 1).

For some writers action research is primarily qualitative. Participation is another requirement for some writers. Some, in fact, insist on this. Participation can generate greater commitment and hence action. When change is a desired outcome, and it is more easily achieved if people are committed to the change, some participative form of action research is often indicated.

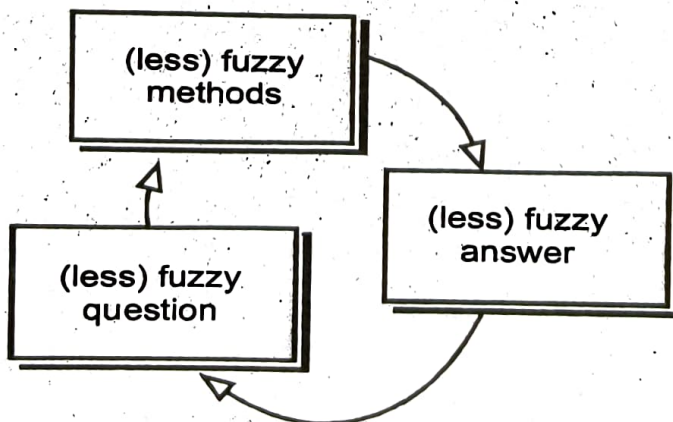


Figure 1 : The action research cycle consists at least of intention or planning before action, and review or critique after [Adapted from Argyris *et al.* 1985].

Although teaching is often viewed as the simple procedure of presenting students with a body of subject matter that is learned and tested, experienced teachers know that much more is involved. They understand the need to take into account the diverse abilities and characteristics of their students, the complex body of knowledge and skills that students must acquire, and the diverse learning activities that need to be engaged. In many respects, also, each class is different from any other, and requires a carefully planned program of activities to ensure that students achieve successful learning outcomes. Action research provides the means for teachers to incorporate these diverse elements into their instruction, and to organize their work so that they effectively accomplish the demanding task of teaching.

The approach of **Stringer *et al.* (2010)** to action research as applied to teaching is based on a simple LOOK > THINK > ACT heuristic (Figure 1.2) that frames both the instructional work of the teacher and student learning activities. The three components act as a compass or map that guides teachers through the systematic steps of a process of inquiry:

LOOK Acquire;;;;;tion and analysis (plan, implement, evaluate)

This simple process is repeated in an ongoing fashion, providing a constant guide to ongoing processes of teaching and learning (Figure 2).

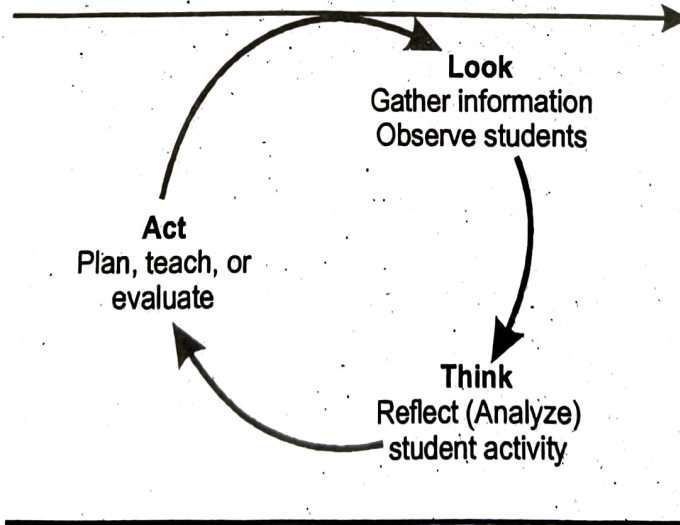


Figure 2 : Action Research Cycle

[Adapted from **Stringer E. T., Christensen L. M., Baldwin S. C. (2010)**]

Action research is often used to investigate specific issues or problems associated with classroom or school life. However, it may be continuously applied to ongoing classroom teaching and learning routines (**Stringer E.T., Christensen L.M., Baldwin S.C., 2010**). Action

research therefore becomes an integral part of classroom lessons, providing a scaffold on which to build creative and effective lessons that consciously engage the students' full learning potential. It assists teachers to link student learning to real-life contexts, interests, and experiences, and provides an approach to experiential education that boosts student learning while promoting social outcomes related to participatory democracy. Action research can be applied to three phases of instruction—*planning, instruction, and evaluation* (Figure 3).

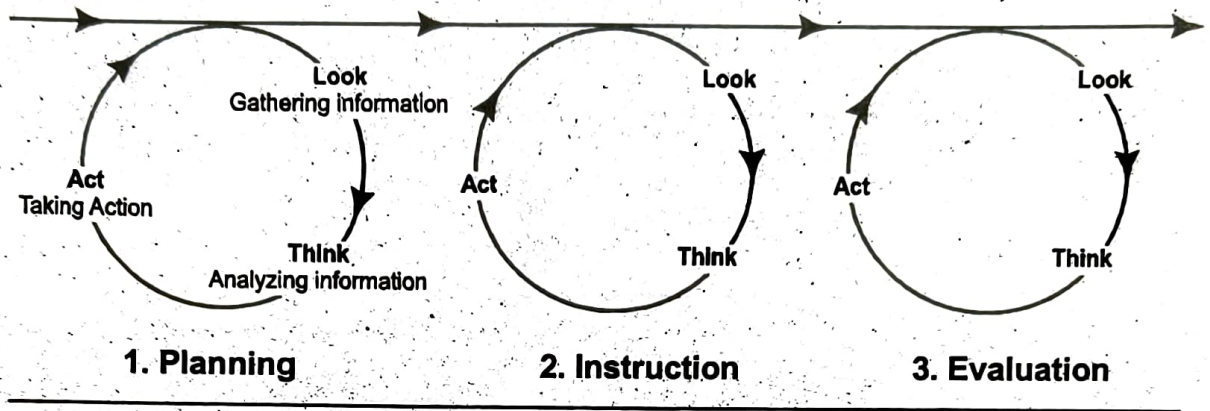


Figure 3: Action Research in Phases of Teaching

[Adapted from Stringer E. T., Christensen L. M., Baldwin S. C. (2010)]

Phase 1—Lesson planning and preparation: Reviewing information and resources (Look); selecting, sorting, and organizing information (Think); formulating a lesson plan (Act).

Phase 2—Instruction: Initiating activity and observing student responses (Look); reflecting on their learning processes and performances (Think); providing feedback and information (Act).

Phase 3—Assessment and Evaluation: Reviewing lesson outcomes, reviewing student performance (Look); identifying successes and strengths; identifying weaknesses and gaps (Think); Planning remedial actions; planning ways of improving instruction and learning (Act).

The cyclical Look–Think–Act steps of action research thus are incorporated into each phase of instruction, providing carefully articulated processes that enhance both teacher instruction and student learning.

Conventional research works best when you can start with a very precise research question. You can then design a study to answer that question, also with precision. In action research your initial research question is likely to be fuzzy. It is because you are more likely to achieve your action outcomes if you take the needs and wishes of your clients into account. Your methodology will be fuzzy too. After all, it derives from the research question, which is fuzzy, and the situation, which is partly unknown. If you address a fuzzy question with a fuzzy methodology the best you can hope for initially is a fuzzy answer (Clark, 1972) (Figure 4). This explains some

of the opposition that action research draws from some quarters. But here is the important point...Provided that the fuzzy answer allows you to refine both question and methods, you eventually converge towards precision. It is the spiral process which allows both responsiveness and rigour at the same time. In any event, the whole purpose of action research is to determine simultaneously an understanding of the education system and the best opportunities for change. If you are to be adequately responsive to the situation, you can't begin the exercise with a precise question. The question arises from the study.

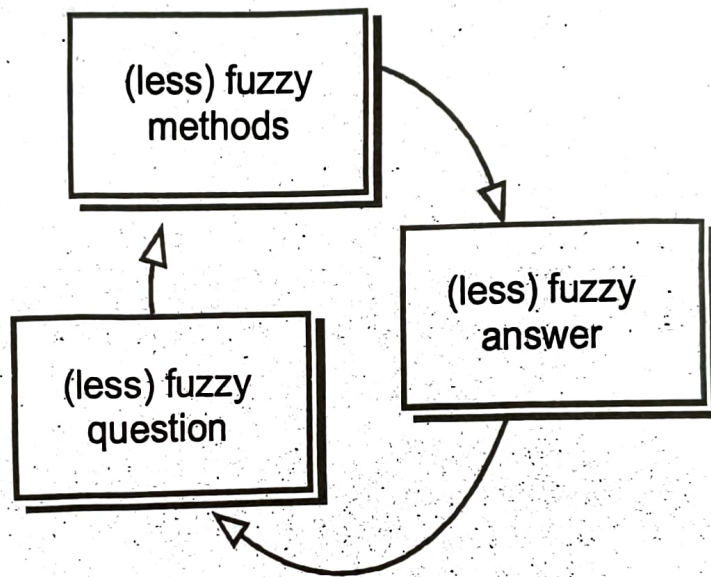


Figure 4 : Action research often starts with a fuzzy question and methodology; but provided each cycle adds to the clarity, this is appropriate [Adapted from Clark, P. A., 1972]

In conclusion, action research encompasses several important features. It involves researching your own practice – it is not about people out there. It is emergent, participatory and situation-based. Action research constructs theory from practice and accordingly it can be useful in real problem-solving. It deals with individuals or groups with a common purpose of improving practice and involves analysis, reflection and evaluation. There are several advantages of using action research as a method of researching into aspects of practice: research can be set within a specific context or situation; researchers can be participants – they don't have to be *distant* and *detached* from the situation; involves continuous evaluation and modifications can be made as the project progresses; there are opportunities for theory to emerge from the research rather than always follow a previously formulated theory; the study can lead to open-ended outcomes.

REFERENCES

- Argyris, Chris; Putnam, Robert and Smith, Diana McLain. (1985). *Action science: concepts, methods and skills for research and intervention*. San Francisco, Ca.: Jossey-Bass.
- Best J.W, Kahn J.V. (2009). *Research in education*, tenth edition, Dorling Kindersley (India) Pvt Ltd, New Delhi.
- Calhoun, E. (2002). Action Research for School Improvement. *Educational Values*, 40 : 72-78.
- Chaudhuri S. (2013). *Leading Action Research in Teacher Education: An Introduction to Theory and Practice*, Kolkata, Rita Publication.
- Clark, Peter A. (1972). *Action research and organisational change*. London : Harper and Row.
- Cochran-Smith, M., & Lytle, S. L. (1990). Research on teaching and teacher research : The issues that divide. *Educational Researcher*, 19(2), 2-11.
- Elliott, J. (1991). *Action research for educational change*. Milton Keynes : Open University Press.
- Kemmis, S., & McTaggart, R. (1988). *The action researcher planner*. Victoria : Deakin University.
- Kirk, Jerome and Miller, Marc L. (1986). *Reliability and validity in qualitative research*. Beverly Hills, Ca.: Sage.
- Koshy V. (2005). *Action Research for Improving Practice - A Practical Guide*, Paul Chapman Publishing, A SAGE Publications Company, London.
- Lewin, K. (1948). *Resolving social conflicts: selected papers on group dynamics*. New York : Harper.
- McNiff, J. (2002). *Action research for professional development: Concise advice for new action researchers* (3rd ed.). Retrieved from: <http://www.jeanmcniff.com/booklet1.html>.
- Sagor, R. (1992). *How to conduct collaborative action research*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Stringer E. T., Christensen L. M., Baldwin S. C. (2010). *Integrating Teaching, Learning, and Action Research-Enhancing Instruction in the K-12 Classroom*, SAGE Publications, Inc.
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Understanding Climate and Climate Change in the Perspective of Environmental Education for Social Development

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Abstract

Issues pertaining to the ever changing weather and climate are frequently discussed in the different platforms having participation of the academics, scientists, economists, policy-makers and other stake holders. Weather and climate have many roles to play in the human society, especially with regard to food, shelter, economic activities, transport and a host of life support systems. But, the functions and impacts of weather and climate systems are often not understood properly, which lead to improper utilization of these atmospheric resources, and also difficulties faced during their extreme occurrences. Many of our day-to-day decisions require proper understanding of weather processes and climatic conditions. Incorporation of weather and climate in environmental education curricula is necessary for social well-being.

Key Words : Weather and Climate, Climate Change, Environmental Education, Climate and Society

Introduction

The term 'environment' is, in true sense, holistic to include both 'natural' and 'cultural' elements that have profound impact on the life and activities of man. Nature provides certain conditions, either favourable or detrimental, to man; and these conditions often determine the development of human society and progress of civilization. Cultural environment is definitely man's own creation, and that too guides the society in the path of its evolution. Understanding of the environment is essential for the development and sustenance of human beings and his creations on this beautiful earth. Environmental education includes not only the understanding of the components (including man) of the environment, their cause-and-effect relationships, impacts of each on the other; but also the concern about maintaining the balances of the environmental

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components, and remain aware and adaptive to the adverse situations due to extreme conditions of the environment.

Climate is an important component of environment as it plays many roles in the bio-geo-chemical processes of the earth. It influences the hydrological cycle and water balance, soil systems and land cover, eco-systems and nature of biota, human activities and culture. It interlinks all the natural spheres- namely lithosphere, hydrosphere, atmosphere, biosphere and noosphere (related to brain work of human beings) through a system, called climate system which is very dynamic and quite sensitive to any kind of change occurring in it. A change in the climate system may lead to irreversible consequences in the other systems of the earth's environment. So, it is important to have a good understanding of weather, climate and climate change among the people in the perspective of environmental education for the development of human society. Although there are many channels of mass awareness (Satpati, 2011) for climate abnormalities like the recent global warming and climate change, a scientific temperament among the people about such issues can be created through properly designed environmental education. This is especially required when human beings are partly responsible for the permanent changes of climates and environment, and such changes have negative impacts on man himself.

Weather and Climate

Definitions and meanings of climate vary according to the level and purpose of its understanding. Sometimes people hardly differentiate between weather and climate, and climate and climate change, as the spatial and temporal scales of operations of weather and climate are somehow ignored. Normally, weathers are short term phenomena, the momentary reflections of atmospheric conditions; whereas climates are long term earth-atmospheric systems of a place. Climate of a place is usually defined as the 'average' of weathers for a period of about three decades of the place. However, during this reference period the 'expectedly' extreme weather situations are also included for characterization of a particular climate; and in this context, climate may be defined as the 'integration of all weathers' experienced by a place (Critchfield, 2004). In other words, climate is the pattern of change of weathers, both 'the normal's (i.e. the most occurring phenomena) and 'the extremes' (i.e. the least occurring phenomena) of a particular locality for a 'reasonably long period' of time. Weathers change momentarily, and with the change of time, gradually one kind of weather is replaced by the other. Often we do not perceive changes of weathers during a few consecutive days, but depending on the location of a place weathers significantly change in the subsequent months and seasons are produced. Almost the same types of seasonal characteristics are expected for next 'several years' (usually experienced during the 'active life-span' of a person) unless there is any shift in the weather pattern of the locality.

Climates vary with geographic locations of places on the earth. Besides latitude- insolation- altitude factors, nature of wind and ocean water circulation systems, distance from the seas and oceans, pattern of land cover, character of land-soil-vegetation interactions, nature of land and water utilization etc. determine the climatic conditions of a place. Thus, some places may have a number of seasons, e.g. in the lower Ganga Plains it is six (i.e. *grishma* ~ summer, *barsha*~ rainy,

sharat ~ festive, *hemanta* ~ autumn, *shita* ~ winter, and *basanta* ~ spring), while in others areas it is only a perpetual spring (as in Quito, the capital city of Ecuador) or only two extremes of summer and winter (as in the Saharan deserts of Africa). It is primarily the temperature that characterizes the concerned climate, but the nature of winds and precipitations also determine the climates of the different locations.

Climate and Society

Historically, man-climate relationship is very interesting throughout the development of human civilization. In the past human activities were mostly regulated by natural forces operating on the surface of the earth. For example, a round the year high temperature and high humidity conditions have resulted in an unpleasant environment for the Congo (Zaire) people to live a rudimentary life, semi-nude having houses on branches of trees; on the other hand the Tundra people have to put on tight clothes made of multi-layered skins of wooly animals, and live in igloos. Food, shelter, life support systems, economic activities, habits and movements of people were highly dominated by climate. In many areas of the world climate is still one of the chief factors regulating the life and living of human beings.

On many occasions climate is a resource to mankind. The suitable weather and climate has made the earth livable and life has become possible on this planet. Man is constantly and continuously using various essential elements of the atmosphere, both directly and indirectly. The weather plays important beneficial roles to man through providing water at the time of need, evaporating it to suit his requirements, and storing it as vapour or snow for future demand. Although man has become able to regulate the supply of water need, he still largely depends on the natural processes of the climate system. All life forms on the planet earth are heavily depending on climate, which is normally a resource to them.

To man a particular type of weather can be a resource or a hazard depending on the intensity and time of need. For instance, in a country with seasonal rhythm of summer and winter, too much hot or cold are regarded as hazards, as in India heat waves and cold waves are responsible for loss of many lives. It is to be noted that during the hot and humid summer months the people of Indian plains rush to the hill stations not to just experience the beauty of the mountains, but to have a respite in the cool weather there. Transhumance can be a classic example of climate being a resource as well as a hazard for the tribal herdsmen. The beneficial aspects of climate can be referred in the study of applied climatology, e.g. agro-climatology, climate and architecture, bio-climatology etc. The climate hazards are the extreme events having potential to cause damage to man (Das, 2004). These can be momentary storms to prolonged drought; or may be direct atmospheric events like lightning or hailstorms, and indirect ones like floods and water logging. Again these can be of a local phenomenon like dust storm or lightning, and may be quite extensive like heat or cold waves or mid-latitude cyclones.

In the past man-climate relationship was very much deterministic, i.e. climate used to dominate over the life and activities of man. Subsequently with the progress of human civilization

and technological development man could alter, to a certain extent, the character of his ambient weather and climate, and a possibilistic relation emerged with man trying to be dominant over natural environment. But, during the last few decades it has been found that in spite of tremendous technological progress man is not in a position to overcome the losses against the fury of the natural forces. For instance, in case of climate hazards like cyclones, floods, heat waves, cold waves, thunder storms, snow falls and blizzards have been playing havoc for man that require many adaptive measures. So, in these days more emphasis is being given on capacity building against climatic hazards and providing resilience against the odd climatic situations.

Climate Change and Development

Climate itself is a natural phenomenon, although in the recent years much has been talked about the influence of man on modification of contemporary climate, called climate change (Letcher, 2009). In recent times some of the human activities are said to be responsible for rapid changes in climate through the process of global warming- i.e. increase in global mean temperature due to anthropogenic forcing, like excessive deforestation, burning of fossil fuel, and agricultural practices emitting greenhouse gases. However, earth's climate never remained static (Barry and Chorley, 2010). It has undergone various changes in the past, and the aspect is studied as paleo-climate (climate of the past).

The recent global warming induced climate change is now not confined to science alone. Issues relating to economic and social implications of climate change have already taken centre stage in the international political platforms (Wheeler, 2012). This is because climate change has many visible as well as probable impacts on the developmental processes of the different countries, especially in the fields of environment, forestry, water resources, agriculture, health, energy sector, manufacturing, trade and commerce etc. Most of the developed nations are trying to force the developing countries to cut their carbon dioxide, methane and other greenhouse gas emissions, which are produced from coal-fired thermal power plants, agricultural fields and animal husbandry. Moreover, extension of farming in the non-farming areas, intensification of cultivation, and deforestation, etc. for the production of more food grains for the growing population of the developing countries requires emission of greenhouse gases. In the developing countries, like India, it is the necessity of development that incidentally produces greenhouse gases which is partly responsible for the current global warming, somehow over stated (Ahmed and Shamsuddin, 2011); whereas in the developed countries the huge emissions of greenhouse gases are related to high level consumption for very high level of standard of living. If the per capita emissions are compared the developed countries of the USA, Europe, Australia and Japan rank at the top of the list. But, the adverse consequences of the warming e.g. sea level rise, water crises, food shortage, health problems etc. will have to be faced more by the developing and under-developed countries, mostly located in the tropics, where the total number of population is huge and the growth rate of population is also quite high.

Climate in Environmental Education

Since weather and climate are part of our daily life a good understanding of them is essential to make better use of them as resources and take appropriate measures in case of adverse situations. Moreover, many of the human activities are now found to be causing change in weather and climate, which in turn are posing serious threats to mankind. So, to make our relation with weather and climate should be mutually beneficial, a good understanding of the normal as well as extreme climatic conditions has to be developed. Knowledge of daily weather is essential for our routine responses and activities, and to behave with the changing weather patterns. The process and pattern of artificial weather-making, e.g. use of refrigeration, air conditioning system, heating and cooling mechanisms etc. should also take into account the energy utilization and its impact on the environment in the long run.

Weather is studied in meteorology while climatology studies the climates of the world and also climate change. Both meteorology and climatology are based on principles of natural sciences; therefore these may not be properly understood by mass awareness campaigns alone. Climate must be studied as a part of environmental education right from the beginning of formal education; and it should be incorporated in the tertiary education as a special branch of knowledge, besides being taught in some relevant disciplines like geography, geology, hydrology, biology, atmospheric science etc.

The method of learning about climate in environmental education may be followed in the manner as outlined below:

(i) Students of the early environmental education can be encouraged to observe the day-to-day or seasonal changing pattern of weather and to learn the basic causes and consequences of such changes. They may be asked to keep notes of such changes and discuss with the peer groups under the supervision of the class teacher.

(ii) Middle level students of environmental education may keep records of daily weather with the help of some simple instruments like thermometers, barometers, anemometers, wind vane and rain gauge that are available in the school laboratory and observations of clouds, comfort level etc. If instruments are not available the weather records can be obtained from daily news papers or radio/ television news, and can be compared for different periods or places. Paper cuttings of news items on weather and climatic incidents/ events can also be collected, displayed and discussed.

(iii) Senior students of environmental education can prepare project reports on weather/ climatic hazards and disasters. They may organize discussions and debates, quiz contests, seminars and workshops on any problem related to climate and climate change, e.g. impact of climate change on water resources and agriculture of a country or a locality.

In the informal education also there should be some useful efforts on imparting environmental education of climate, and for this mass media, especially radio and television, can play a very positive role. Regular programmes on weather and climate can be organized to make people aware of effective use of the climatic conditions for different economic activities like agriculture, animal

husbandry, forestry, water resources management, urban planning, tourism etc. People should also be made aware of any adverse climatic condition and the possible measures for its mitigation.

Conclusions

Understanding weather and climate is essential to make full use of climate as a resource and also to reduce losses from adverse climatic conditions. This requires climate study as a part of environmental education, in both formal and informal manner. This should start from the early education system of the children to make them aware and act according to their local weather/climatic conditions. Food, water, energy and health are very much related to weather conditions, and therefore, people should have adequate understanding of this relation to live a better life on sustainable basis.

REFERENCES

- Ahmed, R. and S. D. Shamsuddin (2011). Climate Change: Issues and Perspectives for Bangladesh; Sahitya Praksh, Dhaka, p.95.
- Barry, R. G. and R. J. Chorley (2010). Atmosphere, Weather and Climate; Routledge, London, p.516.
- Critchfield, H. J. (2004). General Climatology; Prentice-Hall of India Pvt. Ltd., New Delhi, p.453.
- Das, P. K. (2004). Meteorological Dimensions of Natural Hazards; in Valdiya, K. S. (ed.) Coping with Natural Hazards: Indian Context; Orient Longman Pvt. Ltd., Hyderabad, pp. 37-47.
- Letcher, T. M. (ed.). (2009). Climate Change: Observed Impacts on Planet Earth; Elsevier, Amsterdam, p.444.
- Satpati, L. N. (2011). Evaluation of the Strategies for Generation of Mass Awareness in India against Global Warming; in Proceedings of National Seminar on Global Warming and its Impact on Water Resources (GWIWR), Vol. I, Indian Association of Hydrologists (WBRC, Kolkata), pp. 111- 118.
- Wheeler, S. M. (2012). Climate Change and Social Ecology- A New Perspective on the Climate Challenge; Routledge, London, pp. 10-31.
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A Study on Relationship among Attitude towards Environment, Environmental Awareness and Achievement in Environmental Education at Higher Secondary Level in West Bengal.

*Dr. Goutam Chakraborty**

Abstract

Environment is a global concept today. Environmental Education is an approach to learning. Environmental Education means the educational process dealing with man's relationship of population, pollution resource, conservation, technology, energy, urban and rural planning to the total biosphere. Today our environment is being destructed due to various factors. One of the major causes of environmental destruction is human activities. Man with his great skill and adaptive power has brought a lot of changes. It is the time to realize that our Earth has limited resources. Educators and environment specialists are rapidly pointing out that solutions to the environment crises will require environmental awareness and understanding of the education system at all levels. Environmental psychology as a new branch of psychology focuses on the relationship between the physical environment and human behaviour. Environmental Awareness means help to social groups and individuals to acquire an awareness and sensitivity to the total environment and its allied problems. The importance of Environmental Awareness cannot be over emphasized. We must understand that to improve the environment is to improve the quality of life. The present paper has discussed the Achievement in Environmental Education in relation to Attitude towards Environment, Environmental Awareness at Higher Secondary level.

Key Words : Achievement, Adaptive power, Environment, Environmental Awareness.

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Introduction

Environment is defined as a surrounding or conditions influencing development or growth. It can be understood as a system which includes all living and non-living things, i.e., air, water, soil, vegetation, flora and fauna. The relationship between environment and human kind is indeed deep and has been recognized from the Vedic period. Furthermore, non-violence towards both animate and inanimate components of biosphere has been ingrained as a guiding principle in the Indian Psyche. Therefore, awareness and education of environment is the paramount concern of all the citizens of society. Environment protection starts by creating an awareness among the people so that it becomes part of their life style. The key to achieving this goal lies in Environmental Education and its related programmes. The objective of environmental education includes awareness, knowledge, attitudes, skills and participation of people in protecting the environment. Today environment degradation and preservation have emerged as major issues in studies of globalization. Our environment is being deteriorated every now and then due to serious factors like population explosion, uncontrolled consumption of precious environmental resources; industrialization, carbonization and exploitation of abiotic and biotic components of environment resulted in the present day environmental crises. The principle of Environmental Education is that it makes the pupil's education related to understanding the environment and hazards of its pollution. The Environmental Education is socially relevant as it helps us understand how unchecked and unplanned development pollutes air, water and soil and thereby threatens our subsistence and existence.

Objectives

The main objectives of the study are as follows:

1. To find out relationship between Attitude towards Environment, environmental awareness and Achievement in Environmental Education.
2. To find out whether Attitude towards Environment and environmental awareness are significant predictors of Achievement in Environmental Education.
3. To find out relative effects of Attitude towards Environment and environmental awareness on the Achievement in Environmental Education.

Null Hypotheses

H_1 : There will be no significant relationship Among Attitude towards Environment, Environmental Awareness and Achievement in Environmental Education.

H_2 : Attitude towards Environment and Environmental Awareness are not significant predictors of Achievement in Environmental Education.

H_3 : There will be no relative effects of Attitude towards Environment and Environmental Awareness on the Achievement in Environmental Education.

Population and Sample

Students of West Bengal Council of Higher Secondary Education in North 24-Pgs. district constitute the population of the study. The sample of 500 students was drawn through a randomized process from 10 Higher Secondary schools.

Variables

Three variables have been selected for the study —

- Attitude towards Environment
- Environmental Awareness
- Achievement in Environmental Education.

Tools

- Environmental Awareness scale develops by Dr. Jha Praveen Kumar, Professor P.G. Dept. of Psychology, T.P. College, Madhipur (B.N. Mandal University, Madhipur, Bihar).
- Environmental Attitude Scale (E A S) constructed by Dr. Hassee taj with 61 items to assess the attitude towards environment of the respondents.
- Achievement test in Environmental Education developed by the investigator.

Data Analysis

Relationship between the independent variables (Attitude towards Environment and Environmental Awareness) and dependent variable (Achievement in Environmental Education) was ascertained using the corresponding scores obtained from the variables and tested the same through Pearson Product moment correlation coefficient statistics. Similarly, data on the Prediction Variables were analysed using Multiple Regression Statistics. All analyses are carried out at 0.05 margin of error.

Results

The results of the analysis on the study are presented in the tables below :

Research Question 1 : There will be no significant relationship Among Attitude towards Environment, Environmental Awareness and Achievement in Environmental Education.

Table-1 : Mean, Standard Deviation and Inter Correlation Matrix of the Independent and Dependent Variables

Variable	NO	X	SD	Environmental Achievement	Attitude towards Environment	Environmental Awareness
Achievement in Environmental Education	500	58.5	10.6	1.0000	0.3108*	0.3261*
Attitude towards environment	500	45.2	4.8	0.3108*	1.000	0.0012
Environmental Awareness	500	43.8	4.2	0.31261*	0.0012	1.0000

* p < 0.001

In table 1, the inter-correlation matrix of the independent (Attitude towards Environment and Environmental Awareness) and dependent (Achievement in Environmental Education) variables scores are computed. In the table, there is a positive and significant relationship of 0.318 between Attitude towards Environment and Environmental Achievement, a positive and significant of 0.3261 also existed between Environmental Awareness and Achievement in Environmental Education.

Research question 2 : Attitude towards Environment and Environmental Awareness are not significant predictors of Achievement in Environmental Education.

Table 2 : A Stepwise Multiple Regression Analysis on Independent and Dependent Variables

Multiple $R^2 = 0.36714$ R square = 0.55140		Df	Sums of squares	Mean square	Cal. F	Crit. F
Step 1	Regression	1	43224.6673	43224.6673	314.53	2.2
A T E	Residual	498	68437.5211	137.4247		
	Total	499	111662.1884			
Step 2 E.A.		S*	S*		0.55140	

Significant @ 0.05

Note: A T E = Attitude towards Environment; E.A. = Environmental Awareness

A stepwise multiple regression analysis on the data obtained on independent (Attitude towards Environment and Environmental Awareness) and dependent (Achievement in Environmental Education) variable were run. Table 2 shows that both Attitude towards Environment and Environmental Awareness make 55% prediction of Achievement in Environmental Education. From the analysis of variance in table performed on multiple regression, it is seen that the calculated F-value = 314.53, $p < 0.05$ when the two variables were regressed with the Achievement in Environmental Education. These indicate that both Attitude towards Environment and Environmental Awareness were good predictors of Achievement in Environmental Education of the students.

Research Question 3 : There will be no relative effects of Attitude towards Environment and Environmental Awareness on the Achievement in Environmental Education of the students.

Table 3 : Relative Effects of A T E and E.A. variables on the prediction of Achievement in Environmental Education

Model	Non-standardized coefficients		Standardized coefficients	t	p
	Beta	Standard Error			
Constant	22.350	3.221	Beta	4.20	< .05
A T E	.412	.095	.228	2.31	< .05
E.A	.327	.070	.186	2.04	< .05

The table 3 above shows that each of the independent variables had significant effect on the prediction of Achievement in Environmental Education. Attitude towards Environment (A.T.E) had the greater effect (Beta = 0.228; $t = 2.31$; $p < .05$). Environmental Awareness E.A also had a significant effect with (beta = .186; $t = 2.04$; $p < .05$) respectively.

Major findings

1. Analyses of relationship among Attitude towards Environment, Environmental Awareness and Achievement in Environmental Education in this investigation indicated that there is a positive and significant relation Among Attitude towards Environment, Environmental Awareness and Achievement in Environmental Education of the students. This suggests that Attitude towards Environment and Environmental Awareness could predict Achievement in Environmental Education. -

2. As predicted in Null-hypothesis 1, analyses have shown that Attitude towards Environment and Environmental Awareness could significantly predict Achievement in Environmental Education of higher secondary school students. Attitude towards Environment determines to a great extent Achievement in Environmental Education among higher secondary school students.

3. In the investigation, it was also found that Environmental Awareness as well predicts Achievement in Environmental Education.

4. Regarding Null-hypothesis 2, positive relationship was observed for Attitude towards Environment and Achievement in Environmental Education and as well for Environmental Awareness and Achievement in Environmental Education. The finding of this Null-hypothesis is a confirmatory of the finding of the first Null-hypothesis earlier reported in the study.

5. The results of the third Null-hypothesis further confirm the first and the second findings on the study by revealing that both Attitude towards Environment and Environmental Awareness had relative significant effects on the Achievement in Environmental Education of the students.

It is reasonable therefore, to note that both Attitude towards Environment and Environmental Awareness are good indices of Achievement in Environmental Education.

Conclusions

- (a) There is a positive and significant relation among Attitude towards Environment, Environmental Awareness and Achievement in Environmental Education of the students.
- (b) Attitude towards Environment determines to a great extent Achievement in Environmental Education Among Higher Secondary School students.
- (c) Environmental Awareness as well predicts Achievement in Environmental Education.
- (d) Both Attitude towards Environment and Environmental Awareness had relative significant effects and are good indices i.e. predictors of Achievement in Environmental Education.

REFERENCES

- Altman, I. (1975). *The Environment and Social Behaviour*, Brooks Cole : California.
 - Berry, J.W. (1976). *Human ecology and cognitive style : Comparative studies in cultural and Psychological adaptation*, New York : Sage/Halsted.
 - Sinha, P. (1992). *Perceived Household crowding as Related to Personality Characteristics, adjustment and Academic Achievement of Male and Female Students*. Unpublished Doctoral Dissertation. Banaras Hindu University, Varanasi.
 - Stokols, D. and Altman, (Eds.) (1987). *Handbook of Environmental Psychology*, New York, Wiley.
 - Radha, A. (2005). *Attitude towards environment and perception of environmental education among student-teacher and teacher educators*, Punjab University, pp.105-106.
 - Palmberg, I. (1997). *Environmental knowledge, attitudes and actions among finish secondary school pupils*. Paper presented at ATEE-97, Association teacher education in Europe, pp.106-107.
 - Roli, Sablock. (1955). *A study of awareness and attitude of teachers and students of high school towards Environmental Education in Jabalpur district*, Indian Educational abstract, Issue-1, July, 1966, NCERT.
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VALUES TO VALUE IN EDUCATION

*Dr. Mousumi Boral **

Abstract

Knowledge and skill generated in our current education system are mostly theoretical and superficial; and so, degeneration of values has become an increasing concern in today's world. Values need to be infused from the formative years of a child to address the social and ecological challenges of our time. In the modern age of science and technology strengthening and deepening of the sense of social responsibility and a keener appreciation of moral and spiritual values need to be inculcated at home, school and at all places of interaction to cause a social transformation for human development.

Key Words : Values, Value Education, Values in Children, Curricular Reforms

Introduction

The present day education system hardly puts much emphasis in holistic development of the students. Very often it imparts knowledge and skill, of theoretical and superficial level, and that seldom promote wisdom. Degeneration of values is an increasing concern in today's world. In fact, the current education system has become dysfunctional and inadequate to address the social and ecological challenges of our time. The weakening of social and moral values among the younger generation is creating many serious social and ethical conflicts. The responsibility and the commitment to the society and family have almost been replaced by unhealthy individual competitions. There have been rising crime, corruption, violence, exploitation and strife in the educational institutions which are mainly due to the different market forces that manipulate attitude and valued choices. It is flooded with various goods and services that are creating

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unlimited greed and lust in all persons. Very little thought is given in exploring reorganization of the educational systems, and how physical landscapes of schools and colleges could be actively incorporated in better teaching-learning processes. The condition is worsening day by day, and therefore, at this critical juncture, there is a need for thought for inclusion of 'values' in our curricular framework.

In ancient and medieval ages value education was provided through religious instructions, better known as spiritual education (Sāstry, 2008), which sometimes led to religious wars, strikes and violence in the human civilization. Whenever the values of society lose their hold due to social changes the society begins to decay and disintegrate. The quality of life of the population deteriorates and the nation suffers. Therefore, there is an urgency to demarcate and precisely describe the dimension of values.

Importance of Values

Different scholars have attempted to highlight the essence of values and stated how it should be in vogue in our daily life. M. K. Gandhi, the great national and educationist of India pronounced, '...habits become your values; your values become your destiny'. Martin Luther King, Jr. (on Rediscovering Lost Values) opined, '...there are moral laws of the universe just as abiding as the physical laws'. Barack H. Obama, the present President of America, has stated, '...values must be tested against fact and experience, so long as we recall that they demand deeds and not just words'.

Inculcation of Values in Children

Values need to be infused from the formative years of a child. This is evident from psychological perspectives. The famous psychoanalytic theory of Sigmund Freud (1856-1938) stressed that the *Id*, the most primitive part is a sort of storehouse of biological urges driven by 'pleasure principle', the *Ego* works on 'reality principle' as the motives and channels of behaviour are regulated on more socially acceptable outlets and the *Superego* commonly called the 'conscience' works on the 'morality principle'. It acts on the prohibitions of formal and informal agencies, i.e. on a set of values and ideals that are pursued, because they are believed to be valuable. The ongoing tension between the insistent urges of the *Id* and the constraints of reality helps the *Ego* develop more and more sophisticated thinking skills. Therefore, it justifies infusing moral codes from the child's very nascent stage and then only appropriate conscience would be networking and initiate in restraining the individual from any dishonest act in future. Naturally the grooming can be initiated at home and not always demands curriculum dictums for an aftermath effect.

Kohlberg's theory of moral development (1981) believes that moral stages emerge from a child's active thought about moral issues and decisions (Colby *et al*, 1983). He developed his

ideas by presenting children a series of moral dilemmas which were real or imaginary conflicts that forced children to make decisions based on their moral reasoning. These ideas or issues gradually changes with age. He found that children begin to think about moral issues at about four years of age, as they begin their passage through their first of six stages of moral development. The six stages are grouped into three levels: *Pre-conventional* (4-10 years), *Conventional* (10-13 years) and *Post-conventional* (13 years and above). In the first stage, children respond mainly to cultural control to avoid punishment and attain satisfaction. They obey rules and orders to avoid punishment. Children obey rules not only for self-interest, but also for their own satisfaction. In the second level, children desire approval both from individual and society. They not only conform, but actively support social norms. In the third level, true morality develops. The individual does not appeal to others for moral decisions, but decisions are made by an 'enlighten conscious', which is regulated by an internal moral code.

Elizabeth B. Hürlock in the outstanding work, entitled 'Child Development' (1978) postulated that values are concepts, heavily weighted with emotions. Every child develops his own concept of what is desirable to him and pressures are put on him at home and in the peer groups for development of values. Pestalozzi (1746-1827) has made special attention to morality and for its inclusion in the school curriculum. J. F. Herbart (1775-1841) believed morality to have 5 basic ideas: freedom, perfection, goodwill, justice and equity (right and retribution). According to him, morality is real personality, the personality that ceaselessly surges forward to reach its ideal of life.

N. T. Ramji (Mohanty, 2004: 121) has pointed out that values may be 'operationally conceived as those guiding principles of life which are conducive to one's physical and mental health as well as to social welfare and adjustments that are in tune with one's culture'. In this modern age of science and technology, it is desirable to equip the children with skills and values for making them responsible citizens.

Matthew Lipman (1922-2010) is recognized as the founder of philosophy for children. His interest was particularly on developing reasoning skills by teaching logic which would lead them to possess the ability to think abstractly from an early age. According to DH Parker (cf. Sharma and Katoch, 2007) values belong wholly to the inner world of the mind. The satisfaction on the desire is the real value that serves as an instrument. It is always an experience, never a thing nor an object. These are embodied in educational practices which enable the individual to discriminate the good and bad. This sense of discrimination based on values starts from the very school level.

A teacher has a key role to play in the processes of building strength and purity of character in the students. Many educationists and great thinkers believe that through the means

of education a child should be able to cultivate certain moral and ethical values. Swami Vivekananda's famous statement, 'Education is the manifestation of perfection already in man' is very much pertinent wherein every individual has to utilize his/her head, hand and heart to express the inner potentialities and create a peaceful environ for the fullest development. The statement of M K Gandhi that 'an all-round drawing out of the best in the child and man-body, mind and spirit' (Taneja, 1990: 4) has the same reflection.

Curricular Reforms for Value Infusion

The University Education Commission of 1948 considered both philosophical and practical aspects of values and made certain important proposals for reforms. The Committee on Religious and Moral Instruction (1959) defined moral and spiritual values as follows: 'Anything that helps us to behave properly towards others is of moral value'. The Sri Prakash Committee (1959) suggested a number of measures for moral and spiritual values among the pupils. The Kothari Commission of 1964-66, emphasized that with 'the expanding knowledge and growing power which it places at the disposal of modern society must therefore be combined with the strengthening and deepening of the sense of social responsibility and a keener appreciation of moral and spiritual values'. The National Conference on Minimum Curriculum for Primary stage organized by NCERT in July 1970 emphasized the importance of moral and spiritual values. The 5th Five Year Plan (1974-79) pointed out that 'the most significant need of the hour is to transform the educational system with a view to cultivating the basic values of humanism, democracy, socialism and secularism'. The National Policy on Education (NPE, 1986) also stressed value education. In its Programme of Action (PoA), it has been observed that 'a special place has been assigned to impart value oriented education in the Education Policy. NCERT has made recommendations on value education in its curriculum framework on school education in November, 2000.

Inclusion of Value Education: Necessity and Methods

The future of a country largely depends on the education system prevailing in it; and to reap the maximum dividend out of this, the focus should be on its young population. Education not only nurtures self, but also paves the way to human development. It is the interaction among the people to achieve the best in the society through cooperative practices. The people should be aware of their legitimate rights and moral duties. Thereby, some of the essential qualities of the individuals relating to ethics, values, and good senses become pertinent to avoid and resolve many untoward happenings in the society; and perhaps for that, it is needed to be included in the curriculum framework. Cunningham (cf. Sharma and Katoch, 2007) symbolically states that, 'the curriculum is a tool in the hands of the artists (teachers) to mould his material (the pupil) according to his ideal (objective) in his studio (school). Therefore, an educator tries to create

in the educand a definite realization of the prevailing system of values in the community. As a school is a miniature form of community, the school curriculum should include all those activities which are performed by the larger community outside the boundaries of school. This will help in evolving social qualities of the individual and develop the sociological aspect of the personality.

Thus, a single individual can be brought under the ambience of value oriented thinking process with the efforts of all concerned persons coming to his/her contact. However, pertinent questions arise in the situations, like:

- (1) How do we effectively teach children that there are core values, which are relevant in the world?
- (2) How can the children learn to apply these values in real life and cope with the situations they face in their everyday life?
- (3) How do we internalize these values and not just memorize text for a test or for passing an examination?

It is a matter of pledge for all the responsible units of the society to introduce and gradually inculcate values in the new-born and channelize them on a value-path. At home, the children should possess the right of never being discriminated by age or gender, have basic requirements including nutritious food, or not to be abused by any means and by any known or unknown person, possess decent clothing and shelter, healthcare and education for his/ her overall development. At school, effective education to become a self-reliant responsible person in future, and not to be discriminated on any ground i.e. gender, caste, religion, social or economic status etc. Simultaneously, at home, they should be taught to respect the family traditions, parents and other elderly people, to help in household jobs that suit them the best, to cooperate with others in the family with equal treatment like the self, to utilize properly the basic requirements provided to them, to do all the assigned works for one's development through education, personal hygiene and health and to maintain a good and peaceful atmosphere at home and its surroundings, at school, to abide by and maintain the rules and disciplines of the school, to take part in various activities of the school according to age and ability and to treat the peers as he/she likes to be fairly treated by them.

At home there should be the creation of a sensible environment of cooperation, mutual respect, and transparency, collective decision-making at household level involving the concerned people; value for joint family system, exposure to cultural heritage and moral/ spiritual activities, cultivation of inner happiness, recognition of the child's performance/ achievements, whatever small it may be. At school there should be encouragement for students in co-scholastic activities and team-works i.e. sports, cultural programmes, NCC, NSS, field-work etc., promotion of

healthy relation among the students, teachers and supportive staffs, they should be encouraged to respect the social and cultural heritages of the society and nation, to participate in promotion of social harmony, unity and national ethos, to take part in community and environment development programmes and be aware of the role of responsible mass media for social-well being. Not only through the memorization of the text matter on values but few simple conjectures can help in imbibing the necessary values to develop a healthy mental set-up.

There are different strategies for inculcating values in children. However, the following methods can be suggested here, e.g. for the school environs:

1. Silent sitting and meditation to settle the body and mind in peace, focus the thoughts and concentrate and improve the memory
2. Prayer to develop faith, devotion and self-confidence for development of courage and mental strengths
3. Narration of stories and the lifetime achievements of about great men and women, heroes and social thinkers
4. Group singing fills the mind with chastity and discipline
5. Group learning and group activities in scholastic and co-scholastic school programmes enliven mental health
6. Adoption of social recitation method inculcates self confidence and outspokenness
7. Adequate awareness creation through mass media and different organizations
8. Organizing talks, workshops and seminars by invitation of inspiring personalities of the societies
9. Engagement in service activities for the community creates sense of responsibilities and dutifulness

Conclusion

Educational objectives should be adopted within value framework. Education inculcates certain values in a human being. The core values need to be inculcated through different activities at various places of interaction. Each and every pupil with a gentle ripple will gradually set a wave and exert influence on the social environment and lead to its transformation. This ambience will initiate the diffusion process and transmit the pulsation into the curriculum framework. In case of value dilemma, the most discernible value guides the particular situation, after all the scientific rationalizations in stable mind evade any sort of confusion. I. Kant (1724-1804) had stated that moral requirements are based on standard of rationality which he dubbed as the 'Categorical Imperative' (CI) and violation of which he considers immoral. The 12th Five Year Plan (2007-12) is projected to maximize the outcome of access, equity and quality in education, meeting the international benchmarks. It is expected to offer an opportunity to build upon the progress made during the 11th Five Year Plan undertake effective course corrections

where necessary and initiate newer and innovative measures to provide the much needed vibrancy to the system to enhance access, make higher education fully inclusive and promote international quality and excellence to fulfil the objectives of the core of Indian economic and social development planning. In modern democratic society, moral education or value education is given in a secular manner, whose particular aim is to prepare good people to promote human development.

REFERENCES

- Chandra, S. S. and Sharma, R. K. (2002). Principles of Education. New Delhi. Atlantic Publishers & Distributors.
- Elliott, S. N. *et al* (2000). Educational Psychology- Effective Teaching, Effective Learning. Boston, McGraw Hill.
- Joy, Vazhayil (2001). Reflections on the philosophy of education. NCERT.
- Kohlberg, L. (1981). Essays on Moral Development, Vol. I: The Philosophy of Moral Development. San Francisco, Harper & Row.
- Mahapatra, D. and R. Pati (2009). Swami Vivekananda on Education- relevance to Contemporary India. New Delhi, Neelkamal Publications Pvt. Ltd.
- Mohanty, J. (2004). Modern Trends in Indian Education. New Delhi, Deep & Deep Publications Pvt. Ltd.
- Morgan, C. T. *et al* (1997). Introduction to Psychology. New Delhi, Tata McGraw Hill Publishing Co. Ltd.
- Sastry, A. B. S. (2008). Hinduism- Value Education; in Vanaja, M. and D. V. Bharati (eds.) Value-Oriented Education. New Delhi, Neelkamal Pub. Pvt. Ltd.
- Sharma, Y. K. and K. S. Katoch (2007). Education for Values, Environment and Human Rights. New Delhi, Deep & Deep Publications Pvt. Ltd.
- Snowman, J. *et al* (2009). Psychology Applied to Teaching. Boston and NY, Houghton Mifflin Co.
- Swami Vivekananda (2008). My Idea of Education. Kolkata, Advaita Ashrama.
- Swami Vivekananda (2009). Parents and Teachers in Value Education, Belurmath, Howrah, R. K. Mission Sikshan Mandira,
- Taneja, V. R. (1990). Educational Thought and Practice. New Delhi, Sterling Publishers Pvt. Ltd.



The Significance of Integrating ICT Training in the B.Ed. Curriculum: A Study on the Teachers' Attitude

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Abstract

The technology-based global economy poses serious challenges to various countries as national economies become increasingly internationalized, with the increasing flow of information, technology, products, capital and manpower among nations. This new economic environment is producing dramatic shifts in the socio-political and economic structure, shifting the economic base from the industry to information and altering the nature of work and skills required in most professions. Such trends pose challenges to the educational system to prepare students with the knowledge and skill needed to thrive in the dynamic environment of continuous technological change and accelerating growth in knowledge production. Education is at the confluence of powerful and rapidly shifting educational, technological and political forces. The new generation of students are born into a more technologically familiar environment of digital text and context and to make the curriculum more relevant to them it is imperative that teachers too open up to the fruitful application of ICT in the modern multimodal classroom. The teacher training colleges have a pivotal role to play in this regard. The level of technical proficiency and how much the trainee teachers realize the efficacy of the use of ICT in class remains the crux of the present study.

Key words : Information and Communication Technology, Teacher Training.

Introduction

Education is at the confluence of powerful and rapidly shifting educational, technological and political forces and researches from socio-cultural perspectives perceive ICT as essential for forging students' identities in a rapidly changing youth culture which necessitates the school

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teachers to use ICT for a wholesome learning experience that the modern generation can relate to. Every nation considers education to be necessary to engineer and consolidate any developmental process and the role of the teacher in ensuring the success of any education system is of supreme significance, since it is the teacher who translates policy into action at the classroom level, concretizing the curriculum and realizing educational decisions. It is in recognition of the relationship between teacher quality and the quality of instructional delivery that the role of ICT emerges as a significant one in the present context. Today's students inhabit social, cultural and literary environments rich in digital text and demands of modern education have changed significantly. If one believes in a social constructivist model of education, the teachers must explore the students' digital involvement and reading interest, utilizing that for increasing motivation and success. According to the UNESCO World Education Report (1998) titled "Teachers and Teaching in a Changing World", the new information and communication technologies have radical implications:

New possibilities are emerging which already show a powerful impact on meeting basic learning needs and it is clear that the educational potential of these new possibilities has barely been tapped. These new possibilities exist largely as the result of two converging forces, both recent bi-products of the general development process. First the quantity of information available in the world – much of it relevant to survival and basic well-being – is exponentially greater than that available only a few years ago, and the rate of its growth is accelerating. A synergistic effect occurs when important information is coupled with the second modern advance – the new capacity to communicate among the people of the world. The opportunity exists to harness this force and use it positively, consciously and with design in order to contribute to meeting defined learning needs (UNESCO World Education Report, 1998, p.19)

ICT provides an array of powerful tools that may help in transforming the present isolated, teacher-centre and text-bound classrooms into rich, student-focused, interactive knowledge environments. The report concludes that to meet these challenges schools must embrace the new technologies and this suggests the importance of the teachers' attitude towards the use of ICT in class.

Literature Review

N. Atkins and E. Vasu(2000) in "Measuring Knowledge of Technology Usage and Stages of Concern about Computing: A Study of Middle School Teachers" and Y. Milbrath and M. Kinzie(2000) in "Computer Technology Training for Prospective Teachers : Computer Attitudes and Perceived Self Efficacy" focus on the importance of assessing teacher's attitude to ICT, while R.D. Singh, S.P. Ahluwalia and S.K. Verma (1991) in "Teaching of mathematics:

Effectiveness of Computer-Assisted Instructed (CAI) and conventional method of instruction", *Learning to Teach Using ICT in the Secondary School* by Marilyn Leask and Nordert Pachler (1999), Margaret J. Cox (1999) in "Motivating Pupils through the Use of ICT", Joy Egbert, Trena M. Paulus and Yoko Nakamichi (2002) in "The Impact of Call Instruction on Classroom Computer Use: A Foundation for Rethinking Technology in Teacher Education", and Katina Zammit and Tony Downes (2002) in "New Learning Environments and the Multi-literate Individual: A Framework for Educators", explores the diversity and complexity that both teachers and students encounter with the integration of a fast developing technology in contemporary times.

Objectives

The present study aims at exploring the roots of a teacher's reluctance to embrace ICT for classroom teaching and find out whether a proper exposure in the form of mandatory training in ICT use as a part of the teacher training program, can alter the attitude significantly.

Hypothesis

The null hypothesis is as follows -

H_0 : There is no influence of the ICT training on a teacher's enthusiasm towards using ICT.

Population and Sample

Trainee teachers in B.Ed.in colleges under West Bengal State University in 2012, with ICT as a compulsory part of the curriculum, constituted the population. The sample of 70 trainees was drawn through a randomized process.

Variables

- 1) teachers' enthusiasm towards ICT usage
- 2) teachers' coverage of ICT training.

Tools

Questionnaires were prepared and checked by experts. Data was collected by distributing these questionnaires among the sample.

Method

The ICT training was conducted in batches and the questionnaires were distributed to samples consisting of trainees who had already taken the ICT training and those who were yet to take it.

Data Analysis : Data collected from survey questionnaire have been classified as follows :-

	No. of trainee teachers who took the ICT training	No. of trainee teachers who did not take the ICT training at the time of the survey	Total
No. of teachers enthusiastic towards ICT use in class	28	11	39
No. of teachers not enthusiastic towards ICT use in class	15	26	41
Total	43	37	70

The χ^2 Test was applied to test the null hypothesis at 1% level of significance.

χ^2 value, computed based on the above data after applying Yate's correction for continuity

$$= [\{ |28 \times 26 - 11 \times 15| - 70/2 \}^2 \times 70] / 39 \times 41 \times 43 \times 37$$

$$= 19514880 / 2544009$$

$$= 7.671 \text{ (rounded to 3 decimal places)}$$

Tabulated value of χ^2 with Degrees of Freedom 1, at α -level 0.01 = 6.635

Inference

Since the computed χ^2 value is greater than the tabulated value at 1% level, the null hypothesis is rejected and we have strong reason to believe that ICT training offered, as part of the B.Ed. curriculum, does have influence on a teacher's enthusiasm towards ICT usage in the class.

Conclusion

That the use of ICT has led to significant changes in the school education all over the world, is evident from the results of a series of case studies conducted by The Centre for Educational Research and Education(CERI) and Organization for Economic Co-operation and Development(OECD) in 2001, and The Society for Information Technology and Teacher Education(SITE, 2002) points out that ICT should be infused into the entire teacher education program, but the formal introduction of ICT in teacher education is one area that is yet to be done systematically and likely to have far-reaching consequences on various stakeholders involved, namely the funding and accreditation agencies and participants like the teacher educators and trainee teachers. Professional development of teachers according to socio-economic and cultural demands of a fast evolving global economy today, necessitates mandatory inclusion of ICT training in the teacher training course itself for combating technophobia that is largely generated by lack of exposure and for providing confidence to teachers, well equipped to impart quality education in schools.

REFERENCES

- Alagic, Mara and Palenz, Diana, "Teachers Explore Linear and Exponential Growth: Spreadsheets as Cognitive Tools" (*Advancement of Computing in Education*, Vol. 80, 2004).
- Antonyesamy, L., "Teaching Environmental Concepts to School dropouts through video and charts" (M.Phil in Education, Madurai Kamaraj University, 1989).
- Atkins, N. and Vasu, E., "Measuring Knowledge of Technology Usage and Stages of Concern about Computing: A Study of Middle School Teachers" (*Journal of Technology and Teacher Education*, Vol.8, Issue 4, 2000).
- Behera, S.C., "An Investigation into the impact of educational television programmes on the competency of teachers of elementary schools" (Ph.D. in Education, Utkal University, 1990).
- Biswal, Bhabagrahi, "Educational Telecasts: Research Priorities" (*Indian Educational Review*, Vol 27, issue2, 1992).
- Buch, M.B., "5th Survey of Educational Research 1988-92" (National Council of Educational Research and Training, 2000).
- Chowdhury, Mira, "Khilte Phool – An audio intervention study at Kota (Rajasthan)" (Independent Study, National Council of Educational Research and Training, 1990).
- Cox, Margaret J., "Motivating Pupils through the Use of ICT" (Learning to Teach Using ICT in the Secondary School, [Ed.] Marilyn Leask and Nordert Pachler; Routledge: London, 1999).
- Egbert, Joy, Paulus, Trena M. and Nakamichi, Yoko, "The Impact of Cal Instruction on Classroom Computer Use: A Foundation for Rethinking Technology in Teacher Education" (*Language, Learning and Technology*, Vol. 6, Issue 3, 2002).
- Heather, Jane Robertson, "Toward a Theory of Negativity: Teacher Education and Information and Communications Technology" (*Journal of Teacher Education*, Vol. 54, Issue 4, 2003).
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THE EFFECT OF INTELLIGENCE AND SOCIO-ECONOMIC STATUS ON ACHIEVEMENT IN HISTORY WITH SPECIAL REFERENCE TO HEARING IMPAIRED STUDENTS AT SECONDARY LEVEL

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Abstract

The present paper investigates the achievement of Hearing Impaired secondary students in History in respect of their Intelligence and Socio-Economic-Status. Attempt has been made to find out the Significance of Difference between Means of boys and girls in their Achievement, Socio-Economic-Status and Intelligence. Correlation between Achievement and Intelligence, and Achievement and Socio-Economic-Status are also found out.

Key Words : Achievement in History, Intelligence, Hearing Impairment, SES.

BACKGROUND

Hearing is the main sensory pathway through which speech and verbal communication develop. If a child hears imperfectly, he/ she is likely to speak incorrectly. Again, hearing influences learning and other aspects of maturation. If there is a defect in hearing mechanism there will be problem in perception. Hearing impairment reduces our knowledge of the world around us and also adversely affects the child's performance in learning.

Children with auditory impairment may have difficulty in hearing in either one or both ears or have no power of hearing at all. Hard of hearing, deaf, potentially deaf and deaf-mute are some commonly used terms to denote their impairments. But any classification is doubtful.

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to cover the multi dimensional nature of the variable. The term Hearing Impaired children in this sense signifies an umbrella term covering all those children who suffer by one reason or the other from one or the other type of hearing losses (Mangal, 1998, p.201). Consequently, the term hearing impairment may be defined as "a generic term indicating a hearing disability which may range from mild to profound" (Brill, Mac Neil and Newman, 1986, p.67).

Deafness or impairment in hearing capacity is defined in terms of degree of hearing loss. Total inability to hear is deafness but those whose sense of hearing is defective but who manage with or without hearing aids are called hard of hearing. Deafness might occur before the child acquires language or afterwards due to certain environmental problems. The hard of hearing are those in whom the sense of hearing although defective is functional with or without a hearing aid. Deaf individuals have hearing problems that are so severe that speech cannot be understood when it is transmitted through the air, but hard of hearing individuals can still use the auditory channel as their major avenue for speech and language development (Panda, 2009, p.136). Studies show that hearing impairment affects learning achievement as students fail to process the information incorrectly or partially.

Home Environment and its influence on Hearing Impairment

Whether a hearing impaired child will develop behavioral problems, depends upon how well those in the child's environment accept the disability (Hoemann and Briga, 1981; Moors, 1982). How individuals in the child's environment, particularly the parents and family members respond, largely determines whether the child will show behavioral problems or not. As Hoemann and Briga point out the family climate is critical when there is fully one deaf child among the family of hearing persons, it often happens that the deaf child is excluded from the affairs of the family. It is tedious for a hearing member to explain the deaf child and it is easy to leave the deaf child out of family discussion and decision making. Such experiential deficit can have long lasting effect on the child's social adjustment and development of social competence.

Intelligence and Hearing Impairment

The intellectuality of hearing impaired child has been a subject of much controversy over the years. Traditionally, there have been two different points of view-firstly; hearing impairment results in deficient conceptual ability because thought depends on language. (Vygotsky, 1962); secondly, thought is possible without language so only language related concepts are difficult for hearing impaired individuals (Hurth 1964, 1971).

There is a long tradition of controversy over results of intelligence testing on hearing impaired children. Years ago, the prevailing opinion was that hearing impairment led to lower intelligence score. These notions were based on studies using heavily verbal IQ tests. Today

most authorities agree that if non-verbal IQ tests are used, and especially if those tests are administered using sign language, those children are not found intellectually retarded (Sulligan, 1982).

RATIONALE OF THE STUDY

With an extensive review of the literature it has been found out that many studies have been conducted on hearing impaired students and their rehabilitations. Studies have also been conducted on the effect of Intelligence and Socio-economic status on achievement of normal students. But, no such study was found that studied the effect of Intelligence and Socio-economic status on achievement of hearing impaired students. Needless to say, it is important to know whether any deviation can be found in terms of the effect of Intelligence and SES on achievement, as the said children are not normal. Researches on Intelligence and SES showed their positive relationship with Achievement. The present paper tries to generalize whether the same is true in case of hearing impaired students.

OBJECTIVES OF THE STUDY

The following objectives have been taken for the study.

- 1) To find out if any difference exists between boys and girls of hearing impairment in their achievement in history.
- 2) To find out if any difference exists between boys and girls of Hearing Impairment in their SES.
- 3) To find out if any difference exists between boys and girls of H.I. in their intelligence.
- 4) To know the extent of relationship between SES and achievement of H.I. students.
- 5) To know the extent of relationship between intelligence and achievements of H.I. students.

HYPOTHESES

H₀₁ There is no significant difference between H.I. boys and girls in their achievements of history.

H₀₂ There is no significant difference between H.I. boys and girls in their Socio-Economic-Status.

H₀₃ There is no significant difference between H.I. boys and girls in their intelligence.

H₀₄ There is no significant correlation between Socio-Economic-Status and Achievement of H.I. students.

H₀₅ There is no significant correlation between Intelligence and achievement of H.I. students.

DEFINING IMPORTANT TERMS

Hearing Impairment : Anybody who can't hear sound of 24 dB or above in the better year is considered to be hearing impaired.

Achievement : Achievement means achievement scores in a school subject. The scores/marks obtained by different students in History in the last test are considered achievement here.

Intelligence : Here Intelligence means, the scores of hearing impaired students on Cattle's Culture Fair intelligence test. The score of I.Q. denoted by the test is found to be a sufficient indicator of Intelligence in students.

SES : The SES (Socio-Economic-Status) scale developed by *Department of Geriatric Mental Health, King George's Medical University, Lucknow*, is used in the present research. The scores of this test is the indicator of SES in the test.

DELIMITATIONS OF THE STUDY

- 1) Here achievement means only scores that the students obtained in their history examination.
- 2) The study is delimited to three schools (2 schools from Calcutta and 1 school from Hooghly district) of West Bengal.
- 3) The study comprises students in the age group of 13 to 22.
- 4) Both deaf and hard of hearing students are taken in the sample.

RESEARCH APPROACH

The present research is coming under the broad spectrum of Descriptive method. Data are gathered to know the status of hearing impaired students as far as intelligence, socio-economic-status and academic achievement is concerned. In that respect, it is a developmental study. Besides that the study can be called correlational as correlation between IQ and Achievement, and correlation between SES and Achievement are found out.

TOOLS USED

Cattle's Culture Fair Test was used to know the IQ of students. Items of increasing difficulty values were presented to the participants. The children had to select one solution figure for each problem area. There was no time limit, but young students completed the test within 45 minutes, though some took more than that.

Socio-economic status test having ten items within pre-defined domains were given to the participants. As it was a checklist, they had to put their approval signs on the items they were agreed upon. For the present investigation the Bengali version of the scale was used.

ADMINISTRATION OF TOOLS

The group comprises 24 students. With a prior appointment, the researcher reached there and interacted with the students. Rapport was established. The parents (mostly mother in each case, two of them were fathers and one being the aunt) of the children sat with them and cooperated the investigator.

The students were asked to sit and necessary instructions for undertaking the test were given, they were asked to get their doubt cleared if they required it. They were instructed properly and were asked to leave no items unanswered. At first they attempted the IQ test questions and after completing all the items of IQ test, they were asked to respond over socio-economic status checklist. The checklist contained ten inquiries about the family status of the students. To answer it some students needed the help of their guardians as they did not know some technical aspects, like family income and assets their family possessed. All the sheets containing responses of student participants were collected and were kept by the investigator for research use.

SAMPLE POOLING

Twenty four students were selected randomly from three schools of Kolkata and Hooghly district. Their average age was 17 year. But the schools were not randomly chosen. They were chosen according to the convenience of the researcher. However, the details of the distribution are given below.

School's Name	Boys	Girls	Total
Shrirampur Child Guidance Centre	4	4	8
Calcutta Deaf & Dumb School	4	4	8
Helen Keller Badhir Vidyala	4	4	8
Sum total			24

ANALYSES AND INTERPRETATION OF DATA

The data were analyzed through various statistical treatments, the details of which are given below. Different statistical techniques were applied as per the framed hypotheses.

H_1 *There is no significant difference between H.I. boys and girls in their achievements of history.*

The resulting t-value 0.74 is found to be insignificant both at '0.05' and '0.01' level of significance. Because the calculated value of 0.74 with a df. 22 is less than the critical value or table value at 0.05 and 0.01 levels, which are 2.07 and 2.82 respectively. That means the null hypothesis is accepted and there is no significant difference between the mean score of hearing impaired boys and girls in their achievement. Whatever difference is found may be due to sampling variation or chance factor.

(Significance of Difference in Achievement of HI Boys and Girls in History)

Sex	Boys	Girls
Mean	52	47
SD	16.68	16.15
t-Value	0.74	

H_2 *There is no significant difference between H.I. boys and girls in their Socio-Economic Status.*

As per the result of 't'-value, it is found that the calculated value of the scores of SES is quite less, i.e. 0.20, which is too less than the critical value with df.22 both at '0.05' and '0.01' level of significance. Hence, the null hypothesis is accepted and therefore, there exists no significant difference in the mean score of boys and girls in their socio-economic status. So, it can be said that boys and girls do not differ in their socio-economic status.

(Significance of Difference in SES of HI Boys and Girls)

Sex	Boys	Girls
Mean	32	32
SD	4.17	5.48
t-Value	0.20	

H_3 *There is no significant difference between H.I. boys and girls in their intelligence.*

As per the result of the 't' - test, it is found that the calculated value of 4.08 is greater than the table value even at '0.01' level of significance. That means there exists a real difference in the mean of intelligence scores of hearing impaired boys and girls. Hence the null hypothesis is rejected. And the difference found between the mean value of intelligence between boys and girls is a genuine one. If the mean of both boys and girls is compared, it can be concluded that girls have higher mean (30) than that of the boys (18). That means girls are superior in Intelligence to boys.

(Significance of Difference in Intelligence of HI Boys and Girls)

Sex	Boys	Girls
Mean	18	30
SD	4.15	9.33
t-Value	4.08	

H_4 There is no significant correlation between Socio-Economic-Status and Achievement of H.I. students.

As the value of 'r' indicates (0.0013), the correlation between Socio-economic Status and Achievement is found to be very negligible, though positive. The calculated value (0.0013) is less than the critical value at a df. of 22, both at '0.05' and '0.01' level of significance. So, it can be said that, there is no correlation between Socio-economic status & achievement of hearing impaired students, and whatever is found cannot be termed significant. Hence, the null hypothesis is accepted.

(Correlation between SES and Achievement between HI Boys and Girls)

Sex	Boys	Girls
Mean	33	50
r	0.0013	

H_5 There is no significant correlation between Intelligence and achievement of H.I. students

As per the calculated coefficient of correlation, the value turns to be 0.211. The said value is greater than the critical value both at '0.05' and '0.01' level of significance. Hence the correlation is genuine though low. That means intelligence is positively related to achievement of history in case of hearing impaired boys and girls.

(Correlation between Intelligence and Achievement of HI Boys and Girls)

Sex	Boys	Girls
Mean	24	50
r.	0.211	

MAJOR FINDINGS

- There is no significant difference between the mean score of hearing impaired boys and girls in their achievement. Whatever difference is found is due to sampling variation or chance factor and therefore not considered genuine.
- There exists no significant difference in the mean score of boys and girls in their Socio-Economic Status. So, it can be said that boys and girls do not differ in their socio-economic status.
- There exists a real difference in the mean scores of intelligence of hearing impaired boys and girls. The difference found between the mean value of intelligence of boys and girls is a genuine one. If the mean of both boys and girls is compared, it can be concluded that girls have higher mean (30) than that of the boys (18). That means girls are superior in Intelligence to boys.
- The correlation between Socio-economic Status and Achievement is found to be very negligible and non-significant both at '0.05' and '0.01' level of significance. So, the relation found between them is not genuine.
- The correlation found between achievement and intelligence is genuine, though low. That means intelligence is positively related to achievement of history in case of hearing impaired boys and girls.

SUMMARY

The above study finds no significant difference in the mean score of achievement and socio-economic status of hearing impaired boys and girls. That means, boys and girls do not differ in their achievement in history and socio-economic status. But they differ in their intelligence significantly.

Similarly, the correlation between achievement and socio-economic status is found to be insignificant, whereas the correlation between intelligence and achievement is found to be significant. That means boys and girls do not relate themselves in their achievement and socio-economic status, but do relate themselves in achievement and intelligence. So, it can be concluded

that, boys and girls have their achievement being influenced by intelligence, but not by socio economic status.

CONCLUSION

From the above study it is found that, hearing impaired boys and girls differ significantly in their mean score of intelligence, and therefore intelligence has really a positive role in their achievement.

BIBLIOGRAPHY

- Banerjee, J. (2009). *Education of Exceptional Children*. Kolkata, Rita Publications.
- Best, H. (1943). *Deafness and Deaf in U. S. A.*, New york, Mcmillan Company .
- Brill, R. G., B.Mac Neil and L.R. Newman (1986), Framework for Appropriate Program for Deaf Children, qouted in D.P. Hallahan and J.M. Kauffman (1991), *Exceptional Children* (5th ed.), Boston, Allyn and Bacon.
- Helson, H. (1969). *Contemporary Approaches in Psycology*. New Delhi, Affiliated East West Press,
- Kirk, S.A. (1969). *Educating Exceptional Children*. New Delhi, Oxford.
- Khandekar, R., Al Fahdi, M., Al Jabri, B., Al Harby, S., and Abdula, T., (2008). Visual function and ocular status of children with hearing impairment in Oman: A case series. *Asia Pacific Disability Rehabilitation' Journal Vol. 15 No: 1*
- Kurtzer-White, Ellen, Devid Luterman, (2001). *Early Childhood Deafness"*. Bc : Ag Bell, Washington.
- Mangal, S. K. (1998). *Educating Exceptional Children*, New Delhi, Vikas Publishing House.
- Panda, K. C. (2009) *Education of Exceptional Children*, New Delhi, Vikas Publishing House.
- Sen, A. (1988) *Psyco- Social Integration for the-Handicapped : A Challenge to the Society*, New Delhi, Mitali Publication.
- Yesseldyke, J.E. and Algorine, B. (1998) *Special Education: A Practical Approach for Teacher*. New Delhi, Kaniska Publishing.

WEBLIOGRAPHY

1. http://dir.salon.com/story/news/feature/2003/10/07/rush_drug/index.html.retrieved 2008/09/08.
 2. [cdc.gov.http://www.cdc.gov/niosh/topics/noise/pubs/presentation/AOHCs.wf](http://www.cdc.gov/niosh/topics/noise/pubs/presentation/AOHCs.wf).Retrived / 2008-06-0.
 3. Johanson, Ann-Christin. "Occupational exposure to chemicals and hearing empairment- the need for a noise notation." (pdf). Karolinska institutet: 1-48.
 4. An Educators Guide to Hearing Disability Issues. (N.D.). <http://www.ed.uiuc.edu/wp/assess/hearing.html> and facts about hearing loss. (2005).
 5. Alexander Bell Association For The Deaf And Hard Hearing: <http://www.agbell.org/desktopdefault.aspx?p=facts> about hearing loss.
 6. "Mortality And Burden of Disease Estimetes for Who Member States In 2002" (Xlx). World Health Organisation. 2002. <http://www.who.int/entity/healthinfo/statistics/bodgbddeathdalyestimates.xls>.
 7. "FDA Public Health Web Notification: Risk of Bacteria Meningitis in Children with Cochlear Implants." U. S Food and Drug Administrations, Sept. 25, 2003. Available Online At <http://www.fda.gov/cdrh/safety/cochlear.html>
 8. Gordon langbian, Amie. "Facts About Hearing Loss In Children" http://www.agbell.org/information/brochures_faq.cfm.
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School Refusal : A Problem and its Solutions

*Sucharita Roy Chowdhury **

Abstract

School phobia is a serious problem among school going children and adult. There are a lot of symptoms from which the parents, caregivers and teachers can detect a child with this problem. The causes are many. Although school phobia and avoidance may appear to be a very simple issue to resolve, it is often misunderstood and consequently minimized or mistreated. It should be treated as soon as it is diagnosed, as it could become a chronic and long term problem in future not for the child only, but for his family, peers also, if kept untreated.

Key Words : School Phobia, Symptoms, Causes and Interventions.

Introduction

School is the second home to the child and going to school usually is an exciting, enjoyable event for young children. But for some it brings fear or pain. When a child persistently avoids or refuses to go to school with minor or no physical complaints or with different irrational causes, it is called school refusal. School refusal is sometimes referred to as school avoidance and used to be known as "school phobia." it is quite different from truancy. Children who have school avoidance want to be in close contact with their parent or caregiver, whereas truants do not. School phobic children are often insecure, sensitive, and do not know how to cope with their emotions. They appear anxious and may become physically ill at the thought of attending school. The parents of these children are often attentive and loving, but may be overprotective. As a result some students lack self-confidence and the ability to cope with school life. Usually, school refusal lasts only a short time, especially if a parent insists on school attendance. However, if the problem persists, consultation with school personnel will be necessary to form a unified home and school approach. If ignored, chronic school phobias can result in the deterioration of academic performance, peer relationships, work quality and possibly lead to

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adult anxiety, panic attacks, or psychiatric disorders. Therefore, the issues of a child with school phobia must be addressed early so that his or her fears can be abated.

Children with school phobia are often emotionally insecure and very sensitive. They want to be near their parents and feel anxiety when separated from them. Their feelings of anxiety may give rise to physical symptoms such as headaches, nausea, or stomach aches. Children with school phobia may resist going to school for extended periods of time over many days. Some research suggests that only children, the youngest children in families, and children with chronic illnesses are more likely to show signs of school phobia than others.

Symptoms of school phobia are :

- Feel unsafe staying in a room by themselves or fear being alone in the dark.
- Frequent stomach aches and other physical complaints such as nausea, vomiting, diarrhea, exhaustion, or headaches that cannot be attributed to a physical ailment.
- Clinginess, tantrums, panic, anxiety when away from parents or when forced to go to school.
- Have difficulty in sleeping and frequent nightmares.
- Exaggerated fears of school.
- Constant thoughts concerning the safety of self or others.

The causes of school phobia may be due to the :

- Experience of family change like a transfer, illness, separation, divorce, death, depression, financial problems, or traumatic event.
- Parent's undivided attention at home or overprotective parent who reinforces the idea that being away from him or her could be harmful.
- Over exposure to television, video games or toys rather than to schoolwork.
- Fear of neighborhood violence, storms, floods, fires, etc.
- Real concerns for safety of family members;
- Absence from school due to a long illness.
- Bullying at school;
- Fears over negative relationships with a teacher or peers
- Fear of criticism, ridicule, confrontation or punishment by a teacher or other school personnel.
- learning difficulties — for example, afraid to read aloud, take tests, receive poor grades, be called on to answer questions or perform on a stage or being afraid of not making perfect test scores.

- Fear teasing due to appearance, clothes, weight, height, etc.
- Feeling of social inadequacy due to poor social interaction skills.
- difficulty in adjustment to a new school

The potential long-term effects are serious for a child who has persistent fears and does not receive professional assistance. The child may develop serious educational or social problems if away from school and friends for an extended period of time. It can be successfully treated, and parents should not hesitate to seek professional help. These types of services are available at the Counseling Corner. At the Counseling Corner the child therapists commonly treat this issue and help to resolve the problem. The child therapist can work with the parents and the child. Refusal to go to school in the grown-up child or adolescent is generally a more serious issue, and often requires more intensive treatment. Left untreated, school phobia can have negative consequences for a child's present and future

Parents and school staff together can develop an intervention plan to increase the child's school attendance and reduce refusal behaviors. Some examples of the types of interventions that are often helpful include:

- Behavior modification system by rewarding the child for attending school.
- Counseling for any family issues that may be impacting the problem.
- Taking steps to address the real problem related to school.
- Determining if poor academic skills or a learning disability are contributing to the problem.
- Sending the child for a short period at school, and gradually increasing the time.
- Helping the child develop friendships at school.
- Ensuring the child that he has opportunities for success at school
- Seeking the help of a mental health professional when the problem is severe.
- Sharing the experience of other children.
- Limiting or controlling Television or Computer usage.
- Getting the child used to being with others.
- Listening to the child about school to detect any clues regarding school refusal.
- Talking to the child's teacher, school psychologist, and/or school counselor and maintaining regular communication with the school personnel to share concerns.
- Modification of school environment with having school counselor or professionals who can establish a caring relationship with the children and helping the child to build self confidence by discovering his strengths, monitoring bullying, anxiety.

- Modification of home by eliminating any fun activities when school is in session, encouraging the better school attendance.

Parents and teachers can and should take steps to address a child's school phobia to prevent a chronic, long-term problem that can substantially affect learning and a child's ability to develop into an independent adult. First, parents should have the child examined by her physician to determine if there are underlying, treatable medical causes for the condition. Second, parents and the child can work with the child's school counselor, teacher, or school psychologist to help determine possible causes for the problem. Ultimately, if the issue of school avoidance is to be resolved once and for all, it takes a concerted effort from parents, school personnel and mental health professionals.

REFERENCE

- Blagg, Nigel.(1987). School phobia and its treatment : Croom Helm, New York
- Farrington, D. (1995). The development of offending and antisocial behaviour from childhood : key findings from the Cambridge study of delinquent development: in *Journal of Child Psychology and Psychiatry*.
- Kearney, C.A. & Silverman, W.K. (1993). Measuring the function of school refusal behavior : The School Refusal Assessment Scale. *Journal of Clinical Child Psychology*.
- Kearney, C.A. (2001). School refusal behavior in youth : a functional approach to assessment and treatment. American Psychological Association.
- King, N.J. (1994). School refusal: early identification and treatment : *Australian Journal of Early Childhood*.
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Language Learning and Language Acquisition

*Malayendu Dinda **

Abstract

The term acquisition is used for the mother tongue or the L_1 and the term learning is associated with the second language or L_2 . Gradual development of ability in a language by using it naturally in communicative situations is known as acquisition. It is an informal, subconscious, implicit, effortless process of picking up of a language. On the other hand, learning is a conscious process of accumulating knowledge of the vocabulary and grammar of a language. It is a formal, conscious, explicit process of picking up of a language. In this article these two important concepts of second language acquisition have been discussed along with some theories of both learning and acquisition. It is a must for teachers of second language to be acquainted with these new concepts and theories.

Key Words : Acquisition, Behavioural theory of Learning, Cognitive Theory of Learning, Learning, Second Language Acquisition.

Introduction

Learning is a complex process. It has been defined in various ways. One such definition is : "Learning is a process that in living organisms leads to a permanent capacity change and which is not solely due to biological maturation or aging." Traditionally, psychology deals with learning as (1) any lasting change in behaviour resulting from experience, especially conditioning and (2) as an *act or integral process of acquiring knowledge or skill or knowing gained by study*. But since 1980s other approaches suggest that *learning is rather a social process, taking place as an interaction between people*. Now it is believed that any learning comprises both *an external social process of interaction and an internal process of elaboration & acquisition of the impulses that are created in interaction*. When something is learned it becomes a part of learner's capacity and it can be recalled in certain condition. It implies that it is retained in our brain and nervous system. Recent neuro-biological researches support this statement.

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Theories of Learning

There are two types of theories of learning :

- a. Behavioural theories of learning
- b. Cognitive theories of learning

Behavioural Theories of Learning

According to the behaviourist psychologists, learning is a change in behaviour-patterns in most animals. In many ways learning seems to be an *associative* process – a result of what the psychologists called *conditioning*.

The term *behaviour* is interpreted in terms of stimulus and response. When a dog sees a piece of meat (stimulus) it salivates (response). When it hears a bell (stimulus), on the other hand, it does not salivate (response). We may say that the dog exhibits a certain pattern of behaviour in the former situation, but not in the latter.

Now, if we ring a bell every time a dog is given some meat, it comes to associate the ringing of the bell with the appearance of food. After a short time the dog begins to salivate (response) whenever it hears the bell (stimulus), even when it is not accompanied by the appearance of meat. We say that the dog has now been conditioned to salivate when it hears the bell; that is, it has developed a new pattern of behaviour which it did not originally possess and which, in a sense is not natural to it.

This change from one pattern of behaviour to another is what we call *conditioned learning*. It may be of two types: (1) *classical* conditioning and (2) *operant* conditioning.

Classical conditioning

The characteristic features of classical conditioning are the following :

1. There is a natural bond between a stimulus (S1) and a response (R) which is exploited subsequently or conditioning.
2. A bond of association is formed between S1 and a new stimulus (S2).
3. When the associative bond between S1 and S2 is strong enough, S2 is reinforced by repetition and weakened by the absence of repetition. (The dog will cease to salivate if it hears the bell a number of times without getting any meat). The net result is that in an established behavioural pattern, classical conditioning substitutes a stimulus S1 by another S2.
4. The organism plays a *passive* role in *classical* conditioning. Salivation is not a voluntary response.

Two requirements are seen to be important for this conditioning :

- a. The new stimulus (S2) must be presented together with the original stimulus (S1). For example, the ringing of the bell must be simultaneous with the appearance of meat; if there is too much of an interval between S1 and S2, conditioning will not take place.

The two stimuli are otherwise unrelated : the only thing which brings them together is contiguity, or nearness in time. The formation of the associative bond depends on this contiguity.

- b. For the bond to be formed, the two stimuli must be represented repeatedly. The amount of repetition seems to be crucial; the more frequent the repetition, the greater the strength of the bond.

Operant Conditioning :

The behaviourists discuss a different type of conditioning known as operant conditioning. A pigeon is shut in a cage to which is attached a mechanical lever that ejects a grain whenever it is pressed. The bird keeps fluttering about, presses the lever accidentally, and receives a pellet of grain. It gets a pellet every time it presses the lever. Before long the bird associates the "getting of the grain" with "the pressing of the lever". Now it presses the lever whenever it wants to have grain. This is the stage when the bird is said to have learnt to handle the lever; we say that the bird has been conditioned to handle the lever in order to produce the desired result.

The characteristic features of this type of conditioning (*operant*) are seen to be the following :

1. There is no preexistent stimulus-response bond. The internal stimulus (hunger), the action of pressing the lever, and the reward are unconnected at the initial stage.
2. The reward is satisfying to the organism and hence the repetition of the action. Reward sequence forms a bond of association between action and reward.
3. A bond is formed between the stimulus (hunger) and the action of pressing the lever, which now becomes a conditioned response. The bond is reinforced by reward and weakened by absence of it.
4. The organism plays an active role in operant conditioning. In other words, it operates upon the environment to bring about the desired result.

An important difference to be observed between the two different kinds or models of conditioning (or conditioned learning) is this: operant conditioning emphasizes the effect or result of conditioning, while classical conditioning ignores this aspect of the learning process completely. According to the exponents of the former theory, learning takes place effectively

only when it is associated with an experience which is pleasant or satisfying to the learner. This factor is much more vital than that of the frequency of the learning experience, which is emphasized by classical conditioning.

Behaviourist view of Learning :

For the behaviourist, all learning consists in behaviour which can be observed.

The behaviourists do not deny the possibility of learning being reflected internally but since they have no means of observing and verifying these changes, they stress on what can be observed – i.e. behaviour.

Behaviourism holds the view that language is a form of codified, patterned, social behaviour. It is comparable to other forms of social behaviour which exhibit regular, predictable patterns.

Criticism :

1. Behaviourism does not seem to distinguish between human and non-human learners, and between higher and lower forms of learning. This makes its theories repugnant to anyone who has a faith in the uniqueness of the human species.
2. Some psychologists maintain that learning cannot be equated with behaviour. Observed behaviour, according to them, is only the external manifestation of internal changes which the organism (the learner) may have undergone as a result of "learning"; yet these internal changes are not themselves observable. The behaviour exhibited by the learner may, in fact, be only the "visible tip of the iceberg". The changes of internal states in learner may be far more significant.
3. In behaviourism learning is the outcome of manipulation. This is implied in use of the term conditioning. Conditioning is a process of shaping and moulding of behaviour; desired behaviour is induced, and undesirable behaviour is "extinguished". But this means that there must be some agency outside the learner that decides what is desirable, and practically compels the learner to acquire this desired behaviour. The learner is a mere instrument, to be "manipulated by the external agency".
4. This seems to deny completely that the learner may have something to contribute to the process of learning. The success of learning seems to depend on the effectiveness of the "controlling" by the controller.

Cognitivist views of Learning :

The second school of the psychology of learning can be described as the cognitivist views of learning.

The behaviourists provide a rather simplistic model of learning, in terms of stimulus and response :

$S \rightarrow R$

According to the cognitivists, however, there is something which mediates between the stimulus and the response, and they have termed it : *Cognitive Function*.



This Cognitive Function is the faculty which permits the learner to monitor and evaluate the different stimuli being received, to co-ordinate and regulate them, to reject some of them, and to develop appropriate response to those stimuli which are accepted. That is to say, the Cognitive Function makes the learner the controller (unconsciously, in many cases) of the learning process rather than the passive recipient.

In the behaviourist, or $S \rightarrow R$ model, each "bit" of learning is treated as though it has no relation to any previous learning. But the cognitivists try to relate together the entire history of learning which forms a totality.

According to the cognitivists, the learner, at any given stage, possesses a cognitive map of the environment, which represents the sum of all the learning so far encountered. When the learner encounters a new learning experience, it is screened through the cognitive map and then amalgamated into it. The cognitive map enables the learner to analyze and interpret the new experience, and as a result of it, the map itself may be re-drawn. Thus, learning seems to involve a process of constant reappraisal of the environment by the learner, and consequent adjustment to it.

In a series of experiments conducted with apes, it was found that the animals did exhibit the capacity to comprehend the situation which confronted them, and were not entirely dominated by external stimuli.

An ape, for example, was put in a cage in which a bunch of bananas was suspended from the ceiling, out of its reach. It was, in fact, presented a problem to solve, which was to gain access to the bananas, using some pieces of wood which had been provided. But the pieces of wood had first to be joined together to form a kind of fishing rod which would be long enough to reach the bananas.

The ape began, predictably, by trying to jump in order to reach the bananas. It discovered, however, that this was not effective as the bananas were too far out of reach. At that stage, the

ape was able to adopt an alternative technique; it gave up trying to jump and started using the bits of wood in an effort to reach the bananas. This was, in itself, evidence that the animal was able to interpret the situation, and gave up one behaviour pattern in favour of another; it proved that the animal could think.

Not all the apes in the experiment were able to solve the puzzle. but some of them did manage to solve it and were rewarded.

The interesting point was that some of these animals after a series of unsuccessful attempts, seemed to sit back and think. Instead of continuing with something which they found to be useless, they thought out, for themselves, a different approach. It appeared that they were trying to gain an *insight* into the problem, which would help them to solve it.

This contradicted the conclusions reached from the earlier experiments through trial and error.

The cognitivists are convinced that learning depends on perception and insight-formation. They feel that all learning is in the nature of problem-solving; the new experience constitutes the problem, which the learner tries to solve on the basis of previous learning.

For obvious reasons, the cognitivist view seems to be more attractive as an explanation of the process by which human beings learn. The behaviourist theory of learning reduces the learner to a mechanical agent, being manipulated by someone behind the scenes. The cognitivist view, however, puts the learner at the centre of the learning process.

More importantly, the cognitivist view emphasizes the importance of the previous learning which helps in learning something new, and which has considerable influence on what is now going to be learnt.

Importance of previous learning in cognitive approach :

1. When the learner is confronted by a new experience, he compares it, mentally, with experiences previously encountered. He seems to possess a mental *filing index*, which enables him to refer the new experience to all the previous experiences. He does this because he is trying to find a way of dealing with learning the new situation: a strategy, or plan, which will help arrive at a solution.
2. The learner seems to possess a repertoire (stock) of strategies and skills, which have developed as a result of encounters with previous learning experiences. When the learner comes across something new, he tries at first to solve it on the basis of what is known, using the strategies and skills that are already available. But if the existing strategies and skills (from repertoire) are found to be inappropriate, new strategies and skills have to be developed.

When the learner finds that the new experience resemble something previously encountered, the task of learning becomes easier. In the first place, this gives the learner the confidence of dealing with the situation, secondly, previous learning can be applied or transferred to the solution of the new problem without too much difficulty. If, on the other hand, the new experience has no resemblance to anything previously encountered, the learner may get confused, or frustrated, and this may interfere with the finding of a solution.

Stages of learning process in cognitivist approach :

1. The learner encountering a new situation recognizes it as a problem to be solved.
2. This problem is analyzed, and the learner tries to identify the elements or components of the new situation.
3. The new situation is compared with those previously encountered with the use of a mental filing index system, in an attempt to find out if it is similar or different.
4. The comparison offers a plan, or strategy, for dealing with the new situation. But the plan has to be tested or verified.
5. The plan is tried out, if it does not work, it is abandoned, and an alternative plan is evolved and tried. If the plan works, it is stored away in the filing system for future use.

This is a gross representation of the cognitive process. It suggests that the learner goes through these steps deliberately, one at a time. It also suggests that all learning situations, as well as their solutions, are physical. Sometimes the problem may be entirely mental requiring a mental solution; it may involve nothing more than an explanation which can be generalized. Basically, all learning involves the process of generalizing from particular instances. Any learning experience has to be incorporated into the cognitive map or generalized pattern which the learner is able to abstract from a series of learning experiences. Learning, therefore, can be thought of as a process of induction; individual experiences contribute to the general pattern of understanding.

Features of Language learning from the cognitivist view :

- a) Since the learner's exposure to language is only limited and gradual, it doesn't acquire all the rules at once.
- b) The child will have a very large number of complex rules, which will permit the use of language as correctly as any adult. At that stage, we can say that he has mastered the complete grammar of the language, as used by adults. But at any given stage, when the child has not discovered all rules, it has only a limited grammar.
- c) When we say that the child discovers rules about the use of the language, on the basis of its language data, this is not to imply that it goes straight to the truth. The child discovers the correct rules only gradually; in many cases, the rules which it first discovers are wrong.

- d) We know that in any language there are general rules which cover a large number of particular instances. For example, there is a general rule that the verb agrees in number with the subject. When there is a general rule, it becomes economical for the learner to learn the rule rather than all the individual instances. Unfortunately, such general rules, in any language, apply only to a part of the language, not the whole of it. In any language there seems to be some areas which are rule-free; if there are rules, these are not general enough, and apply to only a limited number of cases. For example, are there any rule to determine the past tense forms of irregular verbs (e.g. eat-ate, go -went, drink-drank, etc.) ?
- e) The cognitivists tend to look only at that part of the language where general rules apply, so that for them language learning is the process whereby the rules of language are discovered and internalized.
- f) Cognitivist theories of language learning differ rather widely from behaviorist views. The former stress on insight, hypotheses formation and learning through discovery, while behaviourism attaches more importance to practice leading to the formation of automatic habits of behaviour.
- g) There is something which the two schools have in common: the belief that learning takes place through exposure. If one is deprived of this exposure, there will be no learning. The child learns a language because he is constantly exposed to it. But if a child is placed in an environment in which there is no language at all, it will not learn any language.
- h) For the cognitivist, the amount of exposure is rather less important than the behaviourist; as we have seen, the cognitivist maintains that even a very limited input, or very limited exposure to language data, may be enough to provide effective learning. This is because the child possesses some processing mechanism which enables him to handle language data effectively. That is to say, the child has a natural endowment which facilitates the task of language learning.

The theory of innate language structures :

A group of psychologists and psycholinguists are interested in investigating the natural faculty for learning language which the human child possesses. They consider themselves to be cognitivists, but in their preoccupation with language acquisition (to the exclusion of all other forms to learning) have gone much further than the traditional cognitivists in stressing the innateness of the language learning process. Most of them have been influenced by Chomsky, and they have adopted many of the ideas from transformational- generative grammar of Chomsky.

The psycholinguists assume that the human child possesses a biological apparatus that

helps in learning. It can be said that the child's brain is biologically programmed for the learning of language. It already possesses, at birth, an in-built set of structures, which makes it comparatively simple to process the language data received, interpret them, and discover the underlying rules. Chomsky has termed it as Language Acquisition Device (LAD). Psycholinguists believe that the structure of language may ultimately provide a clue to the internal structure of the LAD, which a human child possesses. (We cannot observe the LAD itself, but we can observe the output from it – i.e., the sentence which the child produces.)

Another phenomenon which the psycholinguists try to explain is the critical age in which a child learns a language optimally. Up to the age of about 12, a child seems to be capable of learning language effortlessly. We all know that children readily become ambilingual – that is they learn to speak two or even more languages with equal ease and fluency. What is more surprising is that children rarely mix up the system of the languages they are learning – unlike adult language learners. After the age of 12 or so, this natural gift of language learning seems to decline. The brain centres which control language functions begin to harden after this age and beyond a certain age they are no longer active.

Potentially, therefore, a child is a much better learner of language than an adult. Many language teachers believe in the necessity of catching the student young. However, an adult learner may use another gift in the learning of language which the child doesn't possess: the power of mature reasoning, which helps the adult to discover and understand rules more easily than the child. In some cases the adult may, therefore, prove to be a better learner.

Interlanguage hypothesis :

One important offshoot of the "innate language structure" is the development of "Interlanguage hypothesis", posited first by Pit Corder, and later developed by Selinker.

The basic idea of this hypothesis is that the L2 learner of language is always moving towards the *target language*. This means that a learner has to go through stages of learning. It further means that learning best occurs through trial so that trial and error is therefore a means for attaining the rules of the target language.

Interlanguage : Interlanguage is the type of language produced by second & foreign language learners who are in the process of learning a language. Influence of interlanguage can be viewed in the 'errors' made by learners caused by different *processors*;

- a) *borrowing patterns* from the mother tongue (MT). Under this pattern two types of language *transfer* occur [Language transfer is the effect of one language on the learning of another].
 - i) *Negative transfer* (also known as *Interference*): Use of L1 pattern as a rule which leads to an error or inappropriate form in the target Language (TL).

- ii) *Positive transfer* : It is a transfer that makes learning easier, and may occur when both the target language and the native language / mother tongue have the same form.
- b) Extending patterns from the target language (i.e., by Analogy or Over-generalization).
This process is common in L1 & L2 learning in which a learner extends the use of a grammatical rule or linguistic item beyond its accepted uses.
- c) Expressing meaning using the words and grammar which are already known.

Language Acquisition and Language Learning :

It should be remembered that the Theory of Innate Language Structure is most relevant to the process by which a child learns its first language. The first language is learnt informally –without the benefit of classroom, textbooks, or a teacher. It is learnt naturally and spontaneously : the child is never aware of the fact that it is learning something.

But there comes a stage when the child is required to learn a new language, which may be a second or a third language as a part of a formal education. This means that there has to be an exposure to an altogether different kind of learning situation : to a classroom, a teacher, and textbooks. In many ways, this is an artificial situation in which a child has to learn a language. The question is : how closely can this artificial situation be made to resemble the natural situation in which the first language is learnt?

It is important, therefore, to distinguish between language acquisition and language learning, between the natural, inevitable process and the artificial, forced process that operates in the classroom. This distinction is made by Krashen who refers to *acquisition* as the *unconscious imbibing of language*, and *learning* as the *conscious learning of the rules of grammar*.

The process by which a person learns a language is *sometimes* called *acquisition* instead of *learning*, because some linguists and psychologists (Chomsky, Krashen & Terrell) believe that the development of a first language (L1) in a child is a special process. For example, Noam Chomsky believes that :

- i) Children are born with special language learning abilities;
- ii) They do not have to be taught language or corrected for their mistakes;
- iii) They learn language by being exposed to it;
- iv) Linguistic rules develop unconsciously in children.

Thus, according to him, children are said to *acquire* the rules of their mother tongue by being exposed to examples of the language, and by using the language for communication.

Major theories of second language acquisition :

The Acculturation Model (Schumann, 1978)

Acculturation is the process of becoming adapted to a new culture and language. It is regarded as one of the most observable expressions of culture. Schumann considers SLA to be just one aspect of acculturation. The degree to which a learner acculturates to the target language group will determine the degree to which she acquires the L_2 . If the learners and the target language group view each other as equals, then L_2 learning is facilitated. In other words, the target language group and second language group should have a friendly relationship. Similarly, psychological factors like culture shock also affect L_2 learning.

Accommodation Theory (Giles and Byrne, 1982)

This theory is similar to the acculturation in all respects except one. The acculturation theory regards the social and psychological distance between the learner and the target language community as static, whereas Giles and Byrne (1982) view it as dynamic and hence constantly changing. The views of identity held by each group in relation to the other keep shifting. Learners attain a high level of proficiency in the second language when their in-group identification is weak but their identification with other social categories is strong. On the other hand, if in-group boundaries force a community to feel 'closed' they find it difficult to 'accommodate' to the target group and have low motivation.

Discourse Theory (Hatch, 1978)

According to this theory, language development should be considered in terms of how the learner discovers the meaning potential of language in terms of the meaning he can convey it, by participating in communication. The main principles of the Discourse Theory are as follows:

1. SLA follows a natural route in syntactic development.
2. Native speakers adjust their speech in order to negotiate meaning with non-native speakers.
3. The conversational strategies used to negotiate meaning and the resulting adjusted input influence the rate and route of SLA.
4. Thus the natural 'route' is the result of learning how to hold conversations.

The Monitor Model (Krashen, 1985)

Krashen's Monitor Theory claims that two systems are present in SLA : the **acquired system** which results from subconscious knowledge of SL grammar as in L1 acquisition, and the **learned system** which is conscious and results from classroom instruction. This theory is stated in terms of five hypotheses:

1. **The Acquisition-Learning hypothesis** : Acquisition occurs subconsciously as a result of participation in natural communication where the focus is on meaning; learning occurs as a result of conscious study of the formal properties of the language.

2. **The natural order hypothesis** : Grammatical structures are acquired by learners in a predictable order.

3. **The monitor hypothesis** : Learners use 'learnt' knowledge as a monitor to edit utterances generated from 'acquired' knowledge.

4. **The input hypothesis** : Acquisition takes place when the input is a little beyond the learner's current level of competence.

5. **The affective filter hypothesis** : Learners with high motivation and self-confidence and with low anxiety, have low filters and obtain plenty of input. Learners with low motivation and little self-confidence and high anxiety, have high filters and so receive little input.

Krashen's theory is summed up in his own words : 'People acquire second languages only if they obtain comprehensible input and if their affective filters are low enough to allow the input 'in' when the filter is 'down' and appropriate; comprehensible input is presented (and comprehended), acquisition is inevitable. It is, in fact, unavoidable and cannot be prevented - the language 'mental organ' will function just as automatically as any organ.'

The Variable Competence Model (Ellis, 1984)

This model attempts to account for SLA within a framework of language use. In other words, it claims that the way a language is learnt, is a reflection of the way a language is used. It is based on the distinction between **product** and **process**. The product of language use comprises a continuum of discourse types ranging from entirely planned to entirely unplanned. The process of language use is to be understood in terms of the distinction between linguistic knowledge (or rules) and the ability to make use of this knowledge (procedures).

The product (that is, different types of discourse) is the result of two factors :

1. the variable competence of the learner.
2. the variable application of procedures.

Utilization of Primary Processes

Utilization of secondary processes

Employment of unanalysed
L₂ rules in unplanned
discourse

Employment of analyzed L₂
rules in planned discourse

Sometimes a learner speaks or writes spontaneously; he doesn't plan what he is going to say. He may use the rules of the second language but has not bothered to analyse them. Here he is using the primary processes. At other times a learner plans her speech or writing carefully. She has taken time to analyse the rules of the language. This is known as the secondary process. Naturally there will be differences in her performance according to whether he employs the primary or secondary processes.

The Universal Hypothesis (Wode, 1980)

According to the Universal Hypothesis model, there are linguistic universals which determine the course of SLA as follows :

1. Linguistic universals impose constraints on the form that interlanguage can take. Interlanguage refers to the presence of systematic features of both the first and the second language in a learner's language.
2. Learners find it easier to acquire patterns that conform to linguistic universals than those that do not.
3. Where the L_1 manifests linguistic universals, it is likely to assist interlanguage development through transfer.

G. Neurofunctional Theory (Lamendella, 1977)

This theory adopts a neurofunctional approach to SLA. It argues that there is a connection between language function and neural anatomy. These two areas of the brain, namely the right and the left hemispheres, relate to comprehension and production respectively. Neurofunctional theory focuses on specific aspects of SLA, such as age differences, formulaic speech, fossilisation and pattern practice. Lamendella identifies two systems as particularly important for language functioning.

a. The Communication hierarchy : This is responsible for language and other forms of interpersonal communication. Primary language acquisition and second language acquisition are marked by the use of the communication hierarchy.

b. The cognitive hierarchy : This controls a variety of cognitive information-processing activities that are also part of language use.

A good scientific theory of SLA is yet to emerge but researchers are moving in that direction. A unified theory can give clear directions for designing English as a Second Language (ESL) studies; it can also provide interim solutions to teachers till such time they understand SLA better. (These theories are adapted from Saraswathi)

Factors of Language Acquisition

Behaviourists viewed the human mind as a blank slate and considered language learning as a mechanical process of habit formation. This view was challenged by the revolutionary

ideas of Noam Chomsky in 1959. He felt that behaviourism simplified the learning process and underestimated the role of creativity of the human mind. He asserted the remarkable capacity of the child to generalize, hypothesize and process any information in a variety of special, and complex ways... which may be largely innate, or may develop through some sort of learning or through maturation of the nervous system. This shift had a tremendous impact on research in both the first and second language learning. The learner, rather than the teacher or the materials, became the focus of study. The learner began to be viewed as an active participant in the process of learning. In teaching, more and more emphasis is given to those exercises in teaching which would help the learner to induce the language system and internalize the rules that govern the target language.

This shift from the teacher and the teaching materials to the learner, his linguistic output has also led some researchers to look into the learner's characteristics in greater detail and identify those characteristics that appear to be more responsible for success or failure in second / foreign language learning. Significant among the learner characteristics identified so far, include the learner's age, intelligence, aptitude, motivation, attitude, personality and cognitive style, etc.

1. Age

Many of the psychologists and linguists believe that children are better at learning second languages than adults. Several researchers have shown that adults are actually better learners than children.

2. Sex

Several studies on first / second language acquisition have shown girls to be better learners than boys. In the field of formal foreign language learning scholars generally found girls to be better learners.

3. Intelligence

Intelligence is usually conceived of as the ability to understand, to learn and think quickly. It consists of verbal ability, reasoning ability, concept formation ability etc.

Some tests were conducted on intelligence and foreign language learning. Though some of the studies gave evidence for the positive relationship between intelligence and success in a foreign language, most of the studies were skeptical of such relationship.

4. Aptitude

Aptitude for a particular job or skill is the ability to learn it quickly and easily and to do it well. What people generally call a 'knack for languages' is nothing but aptitude for language.

It is popularly believed that some people have more aptitude for learning second languages than others. This observation has generally been made in connection with classroom learning and not learning in real-life situation.

5. Cognitive Style

It refers to an individual's typical way of organizing universe, and reflects personality or preference and not ability or intelligence. For example, two boys Pupu and Dhupu look at two cars but their responses are quite different. Pupu thinks how comfortable each car is whereas Dhupu thinks of the engine's capacity. These response of Pupu and Dhupu show that Pupu focuses on the usefulness of the car and Dhupu on the technical aspects. The former is therefore a functionalist and the latter an analyzer. Both the responses reflect different styles of learning or cognitive styles.

Types of Cognitive style

One of the interesting findings of research into human mental or cognitive processes is that individuals have certain preferred styles of perceiving the environment, thinking and problem solving. These individual difference are not differences in the level of cognitive ability, which would make some persons more successful in learning than others. These styles are genuinely alternative patterns.

(i) Reflection vs. impulsiveness

Some pupils are relatively quick in coming to a conclusion or taking a decision, when faced with an open-ended situation. Others tend to reflect and consider various possibilities fairly thoroughly before coming to a decision. Obviously both styles have advantages and disadvantages.

Any class will have a few pupils of both types: Pupils who are impulsive rather than reflective will probably make more mistakes. But they may also learn more because they are more active.

(ii) Risk-taking vs. Cautiousness

This dimension is related to how much confidence one should have in order to act decisively. Risk takers are those who are prepared to take a chance even when they are not very sure they are going to be correct. They are not very anxious about being wrong sometimes. Persons who are cautious on the other hand, will not act or move forward unless they are quite sure they will be correct or successful in doing something. They seem to be more concerned about avoiding failure or defeat than in gaining some success at least. Pupils of both types are found in the class.

(iii) Field-independence vs. field-dependence

This dimension is linked to the way of perceiving and responding to the situations which people have to attend to. Some persons take in the whole stimulus situation (or field) and respond to this overall impression, without paying much attention to components and details. Such persons are called field-dependent. On the other hand, field-independent persons are more likely to analyze a given situation and see relationships among the parts. They pay less attention

to the overall picture or field. They are likely to be more interested in the practical and technical aspects of problems to be tackled than in working with other and making teamwork their priority.

(iv) *Divergent thinking vs. convergent thinking*

This dimension is related to intelligence and creativity. Some psychologists have suggested that there is a significant difference between solving given problems directly in an expected or recommended manner and taking a fresh look at the nature of the problem itself. Problem solving in an expected manner is associated with intelligence and the style is called convergent thinking, because the process seems to be one of narrowing down and gradually reaching the correct solution. The second style involves finding out an unexpected or unconventional – or creative – solution. The term divergent thinking is used because of the process or opening up (rather than narrowing down) that is involved here.

It is easy to see that divergent thinking is what leads to new or original interpretation of literary and other texts. On the other hand, where the problems are such that rules have to be followed rather than broken convergent thinking is more appropriate.

6. *Personality disposition*

An individual's personality, as we usually think of it, has more to do with ways of behaving and ways of relating to the social environment. Some of these dimensions of personality or nature are :

- i) Outgoing (extrovert) vs. withdrawn (introvert)
- ii) Active and energetic vs. lethargic and sluggish
- iii) Positive self concept vs. negative self-concept.

These dimensions are not neat categories. Various dispositions, such as these will influence the way pupils behave or participate in class.

Role of Personality

Several researchers have emphasized the importance of personality in foreign /second language learning. It has been noted that a successful learner was invariably found to have personality traits such as social conformity, extroversion, flexibility and tolerance for ambiguity. It has also been found that introversion, soberness and self sufficiency were strongly correlated with oral components of communicative competence. Furthermore, students with traits of imagination, placidness and low anxiety tend to score higher on the written components of communicative competence test.

7. Attitude

According to Allport an attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related.

8. Motivation

The term motivation in the second language learning context is seen according to Gardner as referring to the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity. It is only when the desire to learn the second language and favourable attitude towards it are linked with the effort or drive to achieve it, then we can say that the learner is motivated.

Types of motivation

There are two types of motivation : **Integrative motivation/ Internal motivation** and **Instrumental motivation / External motivation**. There are people who identify positively with the target language group, understand their culture and are able to participate in it. This pattern of motivation is called **integrative motivation**. **Instrumental motivation** is characterized by utilitarian objectives such as obtaining admission in a particular course, professional advancement, and so on.

It is found that success in a foreign/second learning is likely to be less if the underlying motivational orientation is instrumental rather than integrative. Researches clearly suggest that a student may learn a second language with an integrative motivation or with instrumental motivation or with both or with some other motivation.

Significance of Acquisition and learning :

1) All children learn their L1 successfully but many of them cannot learn L2 or L3 when these languages are taught in formal set-up. How can this be explained? The most viable explanation is this; the *environment/ ambience* of the classroom contributes significantly to the process of language learning. The 'richer' the environment in the classroom, the greater is the chance of success in language learning.

2) Psychologists, linguists and language teaching experts think that the process of language acquisition can be duplicated in the process of L2 or L3 language learning. In other words, there must be endeavours on the part of the teacher where L2 learners will learn a second language in the same way as they 'acquire' their mother tongue. Different methods/ strategies have to be adopted in teaching L2 or L3.

3) The child learns his first language *unconsciously*, but all subsequent languages have to be learned *consciously*. It depends on personal interest, attitude, needs etc. of the children.

4) When we say a child *has* acquired or learnt a language we mean that he has mastered the grammar and other system of the language. And once he has mastered the structure of his L1 or MT, it tends to "*interfere*" in extremely subtle ways (We do not yet know fully how this process works with the learning of the new language (L2 or L3) in a formal situation.

Therefore, it is necessary to take into account what the child has already learnt. That is, a teacher should know the *Previous or background knowledge* of the students before teaching a new item.

Language Learning Environment :

The language learning environment may be divided in two categories :

- a) Acquisition-rich environments;
- b) Acquisition-poor environments.

a) **Acquisition-rich environments** are language learning environments where besides the formal language learning in the classroom, the learner has access to English (L2) in the speech community of the child's home, immediate neighbourhood, and specially peer group.

For example, a young child of an educated middle class family who reads in English-medium/convent school prefers to speak in English with his family members at home. Parents and other also encourage the child to use English in conversation. He has also opportunities for viewing TV programmes (in English), movies. He has the facilities of using computer, internet etc. which are also a part of acquisition-rich environments. In this kind of Environment the child acquires fluency in English.

This is an *exceptional situation* of language learning, only a few privileged children have this environment. Majority of children do not enjoy acquisition-rich environment in India.

b) **Acquisition-poor environments** : In these language learning environments exposure to the target language or L2 (here English) is limited to the classroom only and the target language is not used in the speech community of the learner's home or his immediate neighbourhood, especially his peer group. In such environment language learning is limited and occur only in the classroom.

For example, for a child of lower middle class family, exposure to the language (English) is restricted to the textbooks and classroom practice. This makes learning the target language more difficult. Majority of Indian students learn L2 in this type of environment. In such situation the teacher should be sensitive to the need or the motivation of learners for learning the language so that the teacher may adapt the learning material / texts to suit the environment in which Indian students learn and organize the classroom activities.

Language teaching programmes / courses must be oriented towards fulfilling the needs of the target environment, the learning of the target language (English) is facilitated by the '*intrinsic motivation*' and genuine interest of the learners. The purpose of English language teaching is to make the learner an autonomous and efficient user of language. Teacher can facilitate this process by providing opportunities for active and authentic language-use to the learners. Keeping this in view, there has been a shift from '*Content-based teaching*' (where the learners are taught

and examined on the content / subject matter of the textbooks) to 'Skill-based teaching' (when the learners are given opportunities to develop their language skill (Listening, Speaking, Reading & Writing) and examined in terms of their *ability* or *Competence* in these four linguistic skills.

Role of the teachers

Researchers now feel that L_2 could also be acquired if certain insights from the L_1 context are adopted in the L_2 situation. So now we talk of 'second language acquisition' which could be facilitated through the adoption of the procedures.

1. Create exposure to language so that learners have more opportunities for communication.
2. Create informal atmosphere as against the formality of an L_2 classroom.
3. Encourage learners to focus on the meaning or message, not on form.
4. Adopt a tolerant attitude to errors; if you strongly feel some correction is needed do it incidentally.
5. Provide an atmosphere where learners are free from tension.
6. Building up pressure for genuine, real-life communication. (adapted from Saraswathi)

Bibliography

- Baker, Joanna and Heather Westrup. *The English Language Teacher's Handbook*. London: Continuum, 2009.
- Dornyei, Zoltan. *The Psychology of Second Language Acquisition*. Oxford : Oxford University Press, 2009.
- Elliot, Stephen N. et al. *Educational Psychology: Effective Teaching, Effective Learning*. Boston: McGrawhill, 2000.
- Ellis, Rod. *The Study of Second Language Acquisition*. Oxford : Oxford University Press, 2008.
- Richards, Jack et al. *Longman Dictionary of Applied Linguistics*. Essex: Longman, 1985.
- Richards, Jack and T. Rodgers. *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press, 2001.
- Saraswathi, V. *English Language Teaching: Principles and Practice*. Hyderabad: Orient Longman, 2004.
- Tickoo, M.L. *Teaching and Learning English*. Hyderabad: Orient Blackswan, 2009.
- Wallace, Susan. *Oxford Dictionary of Education*. Oxford: Oxford University Press, 2008.
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BOOK REVIEW

*Suvashree Roy Chowdhury **

The book "An introduction to Psychological Tests and Scales" by Dr.Kate Miriam Loewenthal is primarily on giving the reader a comprehensive look at the tests required in behavioural Science. The book provides a clear and jargon free and concise version of the tests especially to those embarking on field-work or research analysis. This book is equipped with good lesson on computer software that is important for the commutation of statistical data that appears to be useful in qualitative researchers unlike the previous edition.

The author of the book has thoroughly constructed and placed materials essential for research in such a way, where beginners who are about to learn about factor analysis, analysis of co-variance and multiple regression analysis are readily palatable and easy to understand. Undoubtedly the content of the chapters in the books give enough , in fact more precise and concise version of constructing psychological measures including descriptions of popular psychological measures.

The first chapter deals materials that provide the readers with a good view on what is meant by -psychological measure. Although the next chapter is actual starting point from where we come to know about pros and cons of using an existing scale, and the various uses of Scales.. The third chapter deals with the skills of writing and constructing a preliminary questionnaire or test. More detailed information on testing is given in the fourth chapter. The fifth chapter finally throws light on data analysis and preliminary analysis that includes- selection of reliable items, descriptive statistics for the final scale construction and summary of steps for data entry and reliability. The final or the sixth chapter discusses the descriptive statistics and validity and presentation of the scale.

There are appendices to the all six chapters. There are numbers of test and scale presentation that include Narcissistic Personality Inventory (NPI), Individual Responsibility (IR) measures

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and Quality of Cognitive Therapy Scale. The appendix to chapter gives a notion about selecting tests. The next chapter's appendix appears to give information about the ethical guidelines that are vital for any researchers to follow while constructing scales for ones' research. The guidelines incorporate the Australian Psychological Society's guidelines to guidelines for medical research. The fifth chapter's appendix deals in finding reliability of a test and renders information and guidelines for analysing type of data, coding and related statistics. It also provides making and checking a database in SPSS for Windows operating system. The chapter further gives the reliability analysis in SPSS for computers using Window operating system. The final appendix deals with computation and validity of a test.

The second edition of the book is a much more informative work. The guidelines are simple and have an easy- to -follow approach. The language used in the book is lucid enough and optimally technical. The placing of the chapters is also in the correct sequence that would help the readers to follow a concept graph.

Opinions & Comments

English & English-medium Schools

*Sudipta Ghosh **

For quite a long time it has been a craze verging on obsession at times among the young parents – mostly those who had never been serious about studies when they were students – to see their wards convent-educated. It is into their troubled psyche that they are desperate to admit their children to any privately-run English-medium school, no matter if the school does not conform to the basics of offering education, or if it has no qualified faculties. It is as if studying at English-medium school alone can ensure a brighter prospect for their little ones, sealing their fate for good. Capitalizing on their troubled psyche, the corporate bigwigs with an ulterior motive of making fast buck by pawning education have been in the rat race of setting up English-medium schools with dubious distinction. And with every passing day these types of schools mushroom in every nook and cranny in our state. The booming industry seems to be edging past all other industries in the state, with education commercialized to the hilt.

The populist nonsense – abolition of English from primary level way back in early 80s – put paid to the desperation of the nervous middle class (shaking under fear psychosis all the time!) who refused to take things lying down, and eventually shifted their focus to privately-run English-medium schools. The misgivings persisting among the middle class got exacerbated when the double-dealing of a section of ministers – sending their wards to English-medium schools while advocating for abolition of English at the same time – became public. Added to the malaise were the atrocious government policies verging on conspiracies contributing to the rapid degeneration of educational scenario in the government and government-aided schools. The conspiracy was camouflaged in the government's no-detention policy at the primary level which is now a reality at the secondary level, much to the detriment of the students themselves, especially those who are of first-generation. It was a stratagem to cripple a generation of students who could not be able to understand even what was good for them, let alone the chicaneries of the sly politicians, leading to the proliferation of sub-literate idiots and the under-achievers.

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They could not be in a position to rise in revolt against the political peccadilloes, paving the way for the politics of vested interest, with none breathing down their necks. The another reason behind this atrociously outrageous policy was to dupe a large section of naïve people into believing that everything is hunky dory with the educational scenario in the state. The another factor contributing to the rapid fall of educational standard in the government and government-aided schools was the recruitment of unemployable people as teachers whose only qualification was to become the card-carrying members of the ruling party besides having the ability to cough up atrocious donation – a euphemism for bribe – to grease the palm of those who called shots, with the eligible and deserving candidates cooling their heels in the wilderness.

The privately-run English-medium schools, capitalizing on the warped psyche of the disgruntled middle class, putatively offered greener pastures. But little did the parents realize that they would be in the fire from the frying pan. Except for the name, there is nothing which can be called a truly English-medium institution, barring a few exceptions. Ill-equipped with ineligible teaching faculty employed deliberately from the left-overs of human resources with humiliatingly paltry sum of salary – sometimes below the sum of the wage earners, it can impart education only half-heartedly. The quality education it promises is just an eye-wash for the desperate parents, given the fact that its only aim is to make profit. Run by people having no aptitude for education, the quality of education is compromised. Contrast with the poorly-paid, poor bunch of faculties the swanky school building attracts students and parents alike. This is a kind of fraud perpetrated in the name of offering quality education. In addition to the atrocious fees, the parents are left with little choice but to cough up extra money for the purchase of school uniform and books and other reading-learning materials from the school premises. The almost-irreparable damage done to the tender minds is that their creativity is negotiated for rote learning. Stuffed with only fact and figures, their natural aptitude for learning is given short shrift. A research conducted by the academics at Durham University reveals that one or two hours should be spent for doing homework for the secondary school children. Anything beyond the optimum time atrophies the benefits of homework. The more the time increases the more the benefits trail off—a thing the so-called English-medium schools hardly adhere to. Burdened with excessive homework, they lose the natural ability to develop the independent learning strategy, and learn from each other. In the process, they end up half-baked and unimaginative, stuffed with information and information only. Another ominous trend is to manipulate the students' achievements in order to paint a rosy picture of the schools to dupe unsuspecting people into believing that everything is going on as planned. Questions are deliberately leaked among the students in the terminal exams to inflate their success story. It is to attract more people to be duped. This is an exercise verging on criminal frivolity because it is the students whose future is negotiated for the shameless pursuit of moolah.

In the age of zip-zap-zoom where English reigns supreme Bengali language is gasping for breath. Amidst the young hopefuls whose sole aim in life is to climb up the ladder of success

by whatever means available there appears to be a harsh indifference to Bengali language. They are obsessed with economic opportunity and materialistic progress. I pity for their lot for being denied the unmixt joy of reading Tagore's sublime poetry, or the moving lines of Jibanananda Das. Unaware of how vibrantly rich cultural heritage we are carrying over they do not mind jettisoning our precious cultural heritage, thus ending up culturally famished and socially half-backed and insensitive. Anything without commercially viable is spurned by the present crop of young hopefuls who prefer information to wisdom and subtle nuances of literature. Language is best learnt through literature. It is not that they are learning English because they love the literature. They are learning it because it is commercially viable. They are learning it without an iota of emotion, let alone aesthetic satisfaction. 'A strange disease of modern life with its sick hurry' overtakes their heads and palsies hearts, leaving them vapid and unimaginative. There is no doubt that good career is always important for all of us, but we need to know that preserving the mother language is also important, especially for communities which are rich in culture and tradition. Need of the hour is to sensitize the culturally famished, pretentiously half-backed generations who take pride in not knowing Bengali well, never mind if they don't know English well either.

They should be made aware of how culturally vibrant we are. This can be done through the school curriculum. Be it English or any other medium of instruction, reading Bengali literature should be made compulsory up to the 12th standard, and teaching should be a living experience evoking profound emotional and spiritual responses in students. The best way to do this is to introduce English as a medium of instruction in parallel with the existing medium of instruction (read Bengali) in government and government-aided schools, primarily for two reasons. One, the expert faculties can be had through Schools Service Commission, and the second one is that the management, unlike the one in privately-run English-medium schools, does not have the desperation for profit. The continuous exodus of students from government and government-aided schools is a cause of worry for the academics. The signs are ominous as this trend will eventually lead to privatization of education. The teachers' organizations, the self-styled custodians of preserving the rights of teachers, have never ever taken up this serious issue with the power-that-be. To frustrate the sinister attempt there should be a concerted campaign by all the like-minded people to sensitize people about the impending danger. Since no political party cares to espouse the cause of education unless it translates itself into the vote-bank, an apolitical forum comprising people as diverse as teachers, academicians, policy-makers, legislatures and bureaucrats should be floated to put things in order. The teaching fraternity, rising above political affiliation, should get their voices louder against the crass commercialization of education and push for a meaningful commercially viable-yet-value-based education. Only then wits will be 'fresh and clear' and life will run 'gaily' as the sparkling Ganges.

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Emblem of the Ramakrishna Mission

The wavy waters in the picture are symbolic of karma; and lotus, of Bhakti; and the rising-sun, of Jnana. The encircling serpent is indicative of Yoga and the awakened Kundalini Shakti, while the swan in the picture stands for the Paramatman (Supreme Self). Therefore the idea of the picture is that by the union of Karma, Jnana, Bhakti and Yoga, the vision of the Paramatman is obtained.

– Swami Vivekananda