Application of Software Agents in Industrial Problems

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Abstract

The production management system used by most manufacturers today is comprised of disconnected planning and execution processes, and lacks the support for interoperability and collaboration needed for enterprise-wide integration. This situation often prevents the manufacturer from fully exploring market opportunities in a timely fashion. To address this problem, there is a need to explore an agent-based approach to intelligent enterprise integration. In this approach, a set of agents with specialized expertise can be quickly assembled to help with the gathering of relevant information and knowledge, to cooperate with each other and with other parts of the production management system and humans to arrive at timely decisions in dealing with various enterprise scenarios. The proposed multi-agent system, including its architecture and implementation, are presented and demonstrated through an example integration scenario involving real planning and execution.

Introduction

In traditional manufacturing, information systems mimic organizational structures, utilizing a top-down, command-and-control structure. Communicating decisions and information down through the organization is time consuming—making it impossible to respond and adapt quickly to external forces. Furthermore, traditional manufacturing relies on schedules as a means of forecasting what needs to be produced. Schedulers sequence jobs based on the assumption that the environment will not significantly change during the schedule's time span. This approach works adequately in a predictable market. However, in a turbulent marketplace a schedule is impractical. Any small, unanticipated change in demand or factory floor conditions can substantially affect the schedule, rendering it obsolete. Another problem with traditional schedulers is that they try to anticipate and plan for every possible change that may occur.

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Unfortunately, the range of scenarios and the possible combinations of parameters are infinite because manufacturing is so complex. Even if it were possible to pre-code all possible scenarios, the cost of considering and programming all possible combinations is prohibitive. An unanticipated scenario could cause the system to fail.

These shortcomings cause problems such as reduced productivity, increased costs, and missed market opportunities. To remain competitive in today's marketplace, manufacturing must change its approach. It should not only satisfy the present and future customer needs at the most efficient level for the lowest possible cost, but also capable of taking human-like decisions into the manufacturing system. Intelligent manufacturing can be achieved in three basic ways:

- Existing manufacturing processes can become intelligent by monitoring and controlling the state of the manufacturing machine;
- Existing processes can be made intelligent by adding sensors to monitor and control the state of the product being processed; or
- New processes can be intelligently designed to produce parts of the desired quality without the need for sensing and control of the process.

An intelligent manufacturing process has the ability to self-regulate and/or self-control to manufacture the product within the design specifications.

In response, an agent-based manufacturing system can be a good alternative. Here, the agents not only adapt to their environment but can also evolve by learning from the environment. Such an approach prepares manufacturing enterprises for the increasingly complex marketplace and enables them to respond rapidly to change.

Multi-agent System

A multi-agent system (MAS) is a loosely coupled network of problem-solver entities that work together to find answers to problems that are beyond the individual capabilities or knowledge of each entity. It is composed of multiple autonomous components showing the following characteristics:

- each agent has incomplete capabilities to solve a problem;
- there is no global system control;
- data is decentralized; and
- computation is asynchronous

One of the current factors and arguably one of the more important ones is fostering MAS development in the increasing popularity of the Internet, which provides the basis for an open environment where agents interact with each other to reach their individual or shared goals. To interact in such an environment, agents need to overcome two problems: they must be able to find each other (since agents might appear, disappear, or move at any time) and they must be able to interact.

This section provides a case study describing how agent-based technology can be applied in business applications. The proposed multi-agent system, including its architecture and implementation, are presented and demonstrated through an example integration scenario involving real planning and execution.

A Proposal for a MAS

In traditional manufacturing systems a major problem that is frequently encountered is "*process rate change*" which occurs when the process time of a given operation on a given machine is reduced significantly from its normal value. The situation is depicted in Figure 1. When this type of event occurs, different actions need to be taken based on the type of operation and the severity of the rate reduction. Some of the actions may be taken automatically according to the given business rules, and others may involve human decisions. Some actions may be as simple as recording the event in the logging file, and some others may be complicated and expensive as requesting such as a rescheduling based on the changed operation rate.

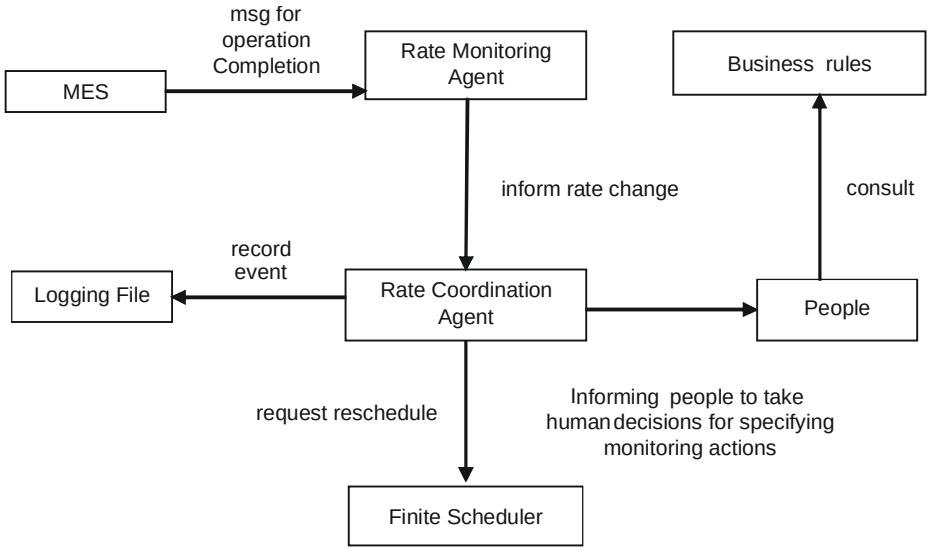

Figure 1

To support this scenario, one need mechanisms for the following activities:

- Collect in real-time information concerning operation completion originated from Manufacturing Execution Systems (MES).
- Compute and constantly update the process rate from the collected information.
- Detect and notify the appropriate parties if the current rate change constitutes a significant reduction.
- Decide appropriate actions to handle the rate change.

Carry out the Actions

The infrastructure that supports agent cooperation in MAS is thus seen to include at least the following key components:

- A common agent communication language (ACL) and protocol
- A common message content format for communication (CMF)
- A shared ontology.

A collection of agents is assembled to support the chosen scenario. All of these agents must use a common language for communication. With a common communication language (ACL), a common content language (CMF), and a shared ontology, agents can communicate with each other in the same manner, in the same syntax, and with the same understanding of the world. The shared ontology is an agreement document established by the Planning/Execution (P/E) application vendors and users and other partners in the consortium. The agreement adopts the format of the Business Object Document (BOD) defined by the Open Application Group (OAG)· BOD is also used as the message format for communication among various P/E applications such as MES and Enterprise Resource Planning (ERP) softwares, and between agents and applications.

In addition to these essential ingredients, some common service agents are used in MAS to make agent collaboration more efficient and effective.

One type of a service agent is the **Registration Agent (RA).** The RA, similarly to the white page, phone book, serves as the central repository of the contact addresses for all involved agents, i.e., it maintains an address table of all registered agents, accessible through the agents' symbolic names. Newly created agents must register with the RA their names, contact addresses and possibly other information by sending to the RA a register message. (As a presumption, every agent in the system must know how to contact the RA.) The RA maps the symbolic name of a registered agent to its contact address when requested by other agents.

Another type of a service agent is the Facilitator Agent which provides additional services to other agents. A simple FA is a Middle Agent (MA) which provides a "yellow pages" type service. It registers services offered and requested by individual agents and dynamically connects available services to requests whenever possible. Agents register their available services by sending MA advertise messages, and request services by sending to the MA request-agent messages. In both cases, the description of the specific service is in the content of the message. In a reply to a request-agent message the MA will send the symbolic name of an agent which has advertised as being able to provide the requested service at the MA, or sorry if such request cannot be met by current advertisers.

A special service agent, called the Interface Agent (IA), is created to provide interface between the agent world and the application world. It also converts messages between the two different formats.

Besides the three service agents RA, MA, and IA, the multi-agent system also includes the following special agents.

Shop Floor Agent (SA) is both a mining agent and a monitoring agent for shop floor activities. As a mining agent, SA requests and receives the messages containing transaction data of operation completion from IA. The data originates from MES Application in the BOD and is converted into CMF for agent communication by IA. SA aggregates the continuing stream of operation completion data and computes the current mean and standard deviation of the processing time for each operation. It also makes the aggregated data available for other agents to access. As a monitoring agent, SA receives from other agents the monitoring criteria for disturbance events concerning processing rates and notifies the appropriate agents when such events occur.

Decision Coordination Agent (DCA) assist human decision making for specific business scenarios by providing the relevant context, including filtered information, actions, as well as workflow charts. It sets the rate monitoring criterion, receives the notification for the rate change, and decides, in consultation with human decision-makers, appropriate action(s) to take for the changed rate. One of the actions would be to request a Finite Scheduler to reschedule if it is determined that the rate change makes the existing schedule impossible to meet. This request is sent from DCA in ACL to IA, where it is converted into the BOD format.

Finding Agent (FA) is an auxiliary agent responsible for finding appropriate persons for DCA when the latter needs to consult human decision-makers. It also finds the proper mode of communication to that person.

Authorization Agent (AA) is another auxiliary agent used by DCA. It is responsible for conducting authentication checks to see if a person in interaction with DCA has proper authority to make certain decisions concerning the scenario.

The Predicates

Three predicates of multiple arguments are defined. These predicates, PRO-FINISH, PRO-RATE, and PRO-RATE-CHANGE, are used to compose the contents of messages between agents in processing the process rate change scenario.

The PRO-FINISH predicate contains all relevant information concerning a completed operation, including P/E-Application-id, machine-id, operation-id, starting and finishing timestamps, and quantity. The process time for this operation can then be computed by the difference between the finishing and starting time stamps, divided by the quantity.

The PRO-RATE predicate contains all relevant information concerning the current average rate of a particular operation at a particular machine with a particular product. The operation rate is represented by its mean and standard deviation over a period of time. PRO-RATE instances are computed and constantly updated by SA, based on a stream of instances of predicate PRO-FINISH obtained from IA.

The PRO-RATE-CHANGE predicate contains all the information needed to construct a BOD that tells finite scheduler a significant rate change has occurred and

a re-schedule based on the new rate is called for. In particular, it contains the operation rate used to compute the current schedule and the new rate. It is the responsibility of the rate change DCA to compose an instance of the PRO-RATE PREDICATE and send it to IA when it deems necessary to request finite scheduler for a re-schedule, based on the process rate change notification from SA and consultation with human decision makers.

Agent Collaboration and the Message Flow in the Agent System

Figure 2 depicts how agents cooperate with one another to resolve the rate change scenario, and sketches the message flow in the agent system. For clarity, RA and its connections to other agents are not shown in the figure. The message flow employed to establish connections between DCA and FA and AA (brokered by MA) is also not shown.

Each of these agents needs information from others to perform its designated tasks. Each of them may also have information others need. Since there is no pre-determined stationery connection among agents, the middle agent (MA) plays a crucial role in dynamically establishing communication channel for agents' information exchange.

message formats: msg-name (sender, receiver, content)

a1: advertise (IA, MA, PRO-FINISH available, PRO-RATE-CHANGE acceptance)
a2: advertise (SA, MA, PRO-RATE available)
ra1: request-agent (SA, MA, PRO-FINISH)
ra2: request-agent (DCA, MA, PRO-RATE)
ra3: request-agent (DCA, MA, PRO-RATE-CHANGE acceptance)
r1: recommend (MA, SA, IA)
r2: recommend (MA, DCA, SA)
r3: recommend (MA, DCA, IA)
s1: subscribe (SA, IA, data)
s2: subscribe (DCA, SA, new PRO-RATE)
s3: subscribe (DCA, IA, data)
n1: notify (SA, DCA, updated PRO-RATE)

Advertising to MA

IA advertises that it can provide PRO-FINISH predicate. It also advertises to be able to accept PRO-RATE-CHANGE predicate. SA advertises that it has current process rates available for some operations in the form of PRO-RATE predicate.

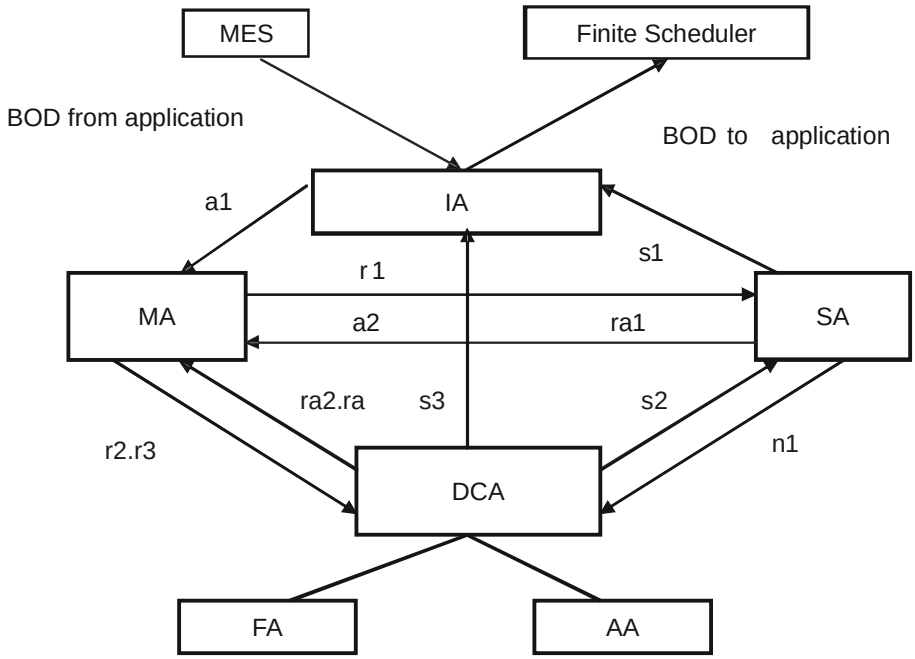

Figure 2

Requesting Recommendation from MA

SA asks MA to recommend an agent that can provide PRO-FINISH predicate, and will receive the recommendation of IA in a responding recommend message. Similarly, DCA asks MA to recommend an agent that can provide PRO-RATE predicate and receives SA in response. It also asks MA to recommend an agent that can accept PRO-RATE-CHANGE predicate and receives IA in response. In response, MA sends the following subscribe message to SA. Upon the recommendation from MA, an agent can then obtain the needed information by sending ask or subscribe messages to the recommended agent.

Monitoring/Notification

When DCA knows from MA that SA has advertised that it can provide the current rate for certain operation, it may send SA the subscribe message. With the message, DCA tells SA that it is interested in receiving new instances of PRO-RATE predicate whenever the mean value of the new rate is suppose less than 50. This effectively turns PRA to a process rate monitor with the "mean<50" as the monitor criterion. Whenever the newly updated rate satisfies this criterion, SA immediately notifies DCA by sending it a notify message with the new rate's mean and standard deviation.

Evaluation

The architecture of this system can easily be applied to handle other types of P/E exception scenarios. In summary, the prototype system achieves the following, which, as discussed in the beginning of this paper, are essential for manufacturing planning and execution integration.

Conclusion

In this paper we presented a multi-agent system that is capable of supporting intelligent integration of manufacturing, planning and execution, especially in managing the exceptions in business scenarios. With this approach, a set of software agents with specialized expertise can be quickly assembled to help gather relevant information and knowledge and to cooperate with each other, and with other management systems and human managers and analysts, in order to arrive at timely decisions in dealing with various enterprise scenarios. The work presented here represents only the first step of our effort toward agent-based enterprise integration for manufacturing planning and execution. Further research and experiments are needed to extend the current work and to address its shortcomings. Although common communication languages that exist today do not impose many constraints and requirements on the internal structure of agents, it may be beneficial to have a common framework for the agent's internal structure within a single agent system. We are currently considering lightweight blackboard architecture for such a framework, which, among other advantages, may provide flexibility for agent construction, agent component re-usability and plug-and-play. Another research direction under consideration is to increase the functionality of the middle agent and make it more intelligent. The MA in our current implementation can only conduct brokering activities at the level of predicates. With the help of a machine interpretable common ontology and an inference engine, more intelligent brokering can be developed to work with object hierarchies and to make intelligent choices. The current ontological support is very limited. One can extend the ontology to include deductive rules for additional interrelations between different BOD's and BOD fields to support more complicated business scenarios. Work is also under way to identify more complex enterprise scenarios which require non-trivial interactions with more legacy systems, and their solutions represent significant added values to the manufacturing production management.

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Social Barriers Associated to Dropout Schooling for Adolescents with Disability in Rural Areas of Eastern Uttar Pradesh

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Abstract

The challenge of integrating and including persons with disabilities in the economic mainstream has not been met. Despite international standards and the implementations of exemplary training and employment legislation policies and practices in some countries, persons with disabilities, and especially women, youth and those in rural areas, remain disproportionately undereducated, untrained, unemployed, underemployed and poor. The present paper emphasized on finding out the social barriers associated to dropout for adolescent with different disabilities in rural areas of UP.

Introduction

The preferred way to see disability is accepted to be in the context of Human Rights. Seeing in this angle of Human Rights, adolescents with disability populations are one of the most vulnerable groups in the world. In fact adolescence is the most forgotten group in the development arena. Their needs are taken either within the need of children or with adults. Even though it is very clear that the need of a child is very different to a need of an adolescent.

The dropout rates are significantly higher in case of students with disability in comparison with non-disabled one's. The reasons that are responsible for the dropouts for AWDs (Adolescents with Disabilities) are multifaceted and in different levels. In spite those multiple levels of reasons, this study addresses the social barriers those are responsible for the school dropouts among AWDs in individual, family and school level. This also will address about the intervention strategies that are needed to address in order to prevent the dropouts.

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The questions are framed to understand the link between self, family, neighborhood, and teachers with dropping out AWDs from school.

Education for children with disability as Special Needs Education (SNE) started in pre independence India. "There are examples in Indian history that show that people with disabilities had educational opportunities, and that disability did not come in the way of learning" (UNESCO, 2003). However, during the colonial period, after the introduction of western education in India, parents of children with disabilities, mainly from urban areas were influenced by the education system of West. They started setting up special schools for their children with disability (CWD). Later the Government of India (GOI) supported those schools with grants, as there was no specific policy, provision or regulations for CWD. These schools later became a part of the government programme for education of CWD. This idea of special schooling for the CWD arose from a belief that the children with special needs can only be educated in special schools. As a result, there were very few children with disability going to schools (because of the number (Less compared to the actual need) of special schools and their situation mostly in urban areas (UNESCO, 2003). According to NCERT (2004) there being less than 4 per cent of CWD having access to schools in India.

The enrollment of CWD was very poor; moreover, the complications of the dropouts due to several reasons limited the education of CWD. The most vulnerable period of dropping out of school is during adolescence. At this stage of transition, where the person moves from childhood to adulthood, s/he faces many social, psychological and physiological changes that sometimes make it difficult to cope with the education system. Government of India figures indicate that nearly 551 children out of every1000 dropout at the middle and secondary levels of education indicating that children are most vulnerable to dropping out during adolescence.

Adolescent with Disability (AWD) are one of the most disadvantaged groups in our society. In addition to their physical and situational limitations, they are discriminated in several other ways, such as education and reduced employment opportunity. They are the victims of marginalization and multiple deprivations. This is because; they form a vicious circle of disability, poverty and isolation.

Profile of Uttar Pradesh

The total population of Uttar Pradesh is over 175 million. It is the most populous state in India. It is also one of the poorest. It is estimated that 8 per cent of the world's poor people are staying in Uttar Pradesh. Comparing to other states and the all India figure, UP has a lower rate of literacy, specially women literacy,

Barriers to Learning

The examples of Barriers in the school that could prevent getting desired outcome out of the schooling and further encourage a student to drop out are:

- Lack of interest in studying

- ❖ Deficiencies in prerequisite skills
- ❖ Certain disability that prevent participate in learning
- ❖ Lack of involvement of parents and siblings
- ❖ Peers influences (Negative)
- ❖ Lack of peer support
- ❖ School being far from home
- ❖ Inadequate support services at school
- ❖ Inadequate support services from community or peers

Such barriers are real to students with disability. This contributes to the dropouts. According to World Bank report in 2007, students with disability are 5 times more likely to be out of school than average.

Adolescents a Transition

Adolescent is interpreted as young people move from childhood to adulthood. There are certain developmental needs common to all adolescents while moving towards adulthood because of the physical, psychological and social changes manifested. Adolescence is often described as a phase of life that begins in biology and ends in society (Sharma 1996). It means that physical and biological changes are universal and take place due to maturation but the psychosocial and behavioural manifestations are determined by the meaning given to these changes within a cultural system. Therefore, it has a greater importance for the environment to make a constructive transition of this important phase of life.

India is a country of young people. Approximately 22.8 per cent of its total population is adolescents. Adolescence is defined as the transitions from Childhood to Adult hood. WHO defines adolescence in terms of a phase of life marked by special attributes as:

1. Rapid physical growth and development
2. Physical, social and psychological maturity, but not all at the same time
3. Sexual maturity and the onset of sexual activity
4. Experimentation
5. Development of adult mental processes and adult identity
6. Transition from total socio-economic dependence to relative independence

"The concept of adolescence as it is commonly understood as a period of *storms and stress*"; (it was initiated by G. Stanley from the Hall of Clark University in the U.S.A.). Subsequently the Adolescent Psychology with an emphasis on psychological upheaval during this stage dominated the literature for several decades. Erickson (1975) a well known psychologist, viewed adolescence as a natural period of uprootedness in human life. He also theorized adolescence as a stage of life during which inner identity

is to be achieved and called it a period of identity crisis. The crisis term has been used by Erickson in a developmental sense to indicate the crucial period of increased potential (Erickson 1968, P-69).

Objectives

1. To examine the family, school and community related factors that are associated with drop out among adolescents with locomotor disability (AWDs).
2. To understand factors associated with drop out among adolescents with disability that are specific to issues related to their disability as well as those that are not related.
3. To examine the kinds of activities that adolescent dropouts with disability are engage in.
4. To explore ways to prevent dropout among adolescents with locomotor disability and improve continued access to schooling.

Research Questions

What are the barriers that students with disability face in accessing schooling?

What is the nature of social barriers that students with disability face while accessing schooling with respect to administration, teachers, peers within the school and outside (family and community)?

What provisions would make schooling more accessible for adolescents with disability?

Methods

The main interest of this research was to determine the points of view and experiences through the words of those who are socially and or educationally excluded and in the process of experiencing barriers in the schools. This type of research is not a common practice even in social research, and is clearly lacking in disability research (Atkinson and Walmsley, 1999; Biklen, 2000; French and Swain, 2000).

Thus, with a desire to 'give voice' to the real actors, researcher decided to adopt questionnaire based interview schedule. Essentially, this methodological model will based on the idea that adolescents will be allowed enough space to express and interpret their own experience.

One of the objectives of the research presented here is to demonstrate common features of the said path to exclusion that are traceable among children and Adolescents with disability in different social groups, for which researcher selected adolescents with disability who have been dropped out from their respective schools after studying for a minimum period of 5 years in school. Therefore, without wishing to undermine or ignore the sole, specific aspects of the path towards social exclusion, was be presented in the final report.

The study was Quantitative with descriptive type.

The respondent were the school going or dropped out children from school. The entire respondents (Universe) were Adolescents with disability between the age group of 13 to 20. The children having problem with communication were excluded from the universe of the sample.

All children among the respondents have at least a moderate degree of disability (40%).

The geographical area covered were four districts of Eastern Uttar Pradesh i.e. Varanasi, Mau, Mirzapur and Ballia. UP is one of most hit among states of India and for me, knowledge of Local language and culture will facilitate for a development of a clear communication and understanding of the respondents.

The respondents were on the basis of random probability method and there was interview with each respondent.

240 interviews were taken for the study; i.e. 60 interviews from each district of Eastern Uttar Pradesh.

The respondents were with from the rural areas.

Scope and Limitations

The study have several scopes of implementations as this will take the child's perspective of including him/herself in to the school, so may be the most practical way of combating exclusion.

Because of the limitation of the children in understanding the questionnaire, researcher excluded some children would have been useful to know their perspective.

Education of PWDs in India

Global estimates suggest that fewer than 5 per cent of children with disabilities achieve the goal of primary school completion (Peters, 2003). In India, compared to a national literacy figure of around 65 per cent, the percentage of literacy levels of the disabled population is only 49 per cent. According to NSSO-2002, only 9 per cent among the literate PWDs have completed secondary education.

Adolescence and their Education in India

As mentioned in a report from WHO, about one out of five in the one billion populations is an adolescent. All the statistics have indicated adolescence is the period when the steepest decline in educational participation occurs. According to the department of education, 56.8 per cent (60% girls) of all children drop out by grade 8, 67.4 per cent (70% girls) by grade 10 (Annual Report, MHRD, 2000). According to NSSO 1995-96, in a national level survey found that 9 out of 10 ever enrolled in schools could not complete schooling, as cited in Government of India report (GOI, 2002). Another evidence of being the turning point of human life as a report of World Health Organization (WHO) says on the adolescents of India that, the "dropouts among the adolescents are high".

Adolescence is also a stage when young people extend relationships beyond their parents and family. It is a time when they meet with friends and come in contact with the outside world in the society with more freedom. In this phase, they come under the influence of peers, and the outside world in the society. The desire to experiment may like to explore sexual relationships, alcohol, tobacco and other substances. The anxiety and stress associated with achievement failure, lack of confidence etc. may lead to depression, anger, violence and other secondary complications.

Further limitation to the education of adolescents with disability is from the family. When the parents have limited funds to support education of their children, anecdotal reports indicate that some parents choose to put all the family resources into educating non-disabled siblings, with the expectation that these children will be better able to support their disabled sibling in adulthood. The option of educating the disabled one to ensure he or she will be self-supporting is often not considered as an alternative.

India has increased its infrastructure in education in many folds (IIPS, 2005). The no of children (6 to 11 years age group) have increased from 19.2 million to 108.7 million from in a period from 1950-51 to 1997-98.

Adolescent with Disability (AWD)

According to the World Bank figures, the current estimates for the total number of adolescents with a disability vary widely. The reasons could be that adolescents are grouped with children or adults rather than being accounted for separately. This intention has overlooked the complexity that an adolescent faces because of the transition faces in cognitive and social spheres as explained by Piaget (Cognitive) and Erikson (Social).

According to the census 2001, there are about 150 million young people in India from 13 to 19 age group. On calculating the overall percentage of disability (2.1%), the no of adolescents with disability comes about 3.15 million.

Education and Human Capital

Education is central to development. It empowers people and strengthens nations. Education is a key resource essential for the expansion of Human Capital (Becker, 1964). According to Becker, Human Capital refers that knowledge and skill is directly proportional to the performance of labour to produce economic value. It is clear by the human capital theory, that education is key to the expansion of the productivity. The children in school not only develop their learning system but also learn to feel self-worth of themselves and for others. In addition to that, school is the basic institution that provides children a platform to learn to express feelings and emotions that child acquire during in its day-to-day life (Epstein, 1984).

According to Epstein (1984) the benefit of education in an inclusive environment is enormous for children with disability. Being educated in an inclusive environment is positively correlated with the successful transition of individuals with disabilities into employment and wider society (Jenkinson, 1997; Shah *et al.*, 2004). Inclusive

education also facilitates the establishment of social relationships between disabled and non-disabled peers and develop more awareness and better understanding of disability for the non-disabled counterparts. This results an increasing acceptance of children or persons with disability. (Wertheimer, 1997; Shah, 2005). Inclusive education presents disabled people with a training that is equal to that of their non-disabled counterparts and therefore, provides them with the qualifications to compete with others in the mainstream economy.

Inclusion is the process of change in education and support services needed to achieve the goal of universal education (Organization for Economic Cooperation and Development, 1999). In India, the human rights movement has shifted the attention of policy makers from the mere provision of charitable services for people with disabilities to protecting their basic right to equal opportunities, dignity and self-respect. In June 1994, India was one of the 92 countries that signed the Salamanca Declaration, in Salamanca, Spain. The statement certified inclusive education and stated that inclusion and participation are essential to human rights (UNESCO, 1995).

The Government of India has launched a number of programmes such as the Project Integrated Education Development (PIED), Integrated Education for Disabled Children (IEDC) and District Primary Education Programme (DPEP), which promote inclusive education. There is a growing interest in inclusion (Alur, 1998), although special schools are still the more popular option for the education of all children with disabilities (Jangria, 1995; Alur, 1998 and Natarajan, 2000). The movement towards including children with disabilities into general education is still a priority for the international and UN organizations. According to the arguments of Warnock Report (1978) inclusive education provides for three levels of integration for persons with disability. These include:

- *Locational integration*, where provision for children with special educational needs is made on the same site as their non disabled peers.
- *Social integration*, where children share social spaces, in the playground or in extra-curricular activities.
- *Functional integration* (the most advanced form), where children with special needs and non-disabled children are educated together, pursuing the same set of curriculum goals and activities.

The basic idea behind learning in a common environment is that cooperative learning can promote greater interpersonal attractions and positive interactions between disabled and non-disabled peers. These social benefits will extend beyond the classroom and become long-term (Putnam, 1993).

Consistently across the globe, especially in developing countries, policies and programmes working with young people seem to overlook the needs of those with disabilities, while efforts aimed at people with disabilities tend to focus either on children or adults. Thus the unique social, psychological and physiological concerns of young people with disabilities tend to remain unaddressed (World Bank, 2006).

This group is thus subject to double marginalisation, by not only being overlooked in the literature and policies focused on the youth, but also in literature and policies addressing issues related to people with disabilities (PWDs).

Adolescents in Uttar Pradesh represent even a worse picture in terms of education. The dropout rate up to class X is as high as 55.48 per cent overall. The no of children those who have access to school is less than 4 per cent (NCERT, 2005). This is obvious that among these drop out of 55.48 per cent, a major percentage of children and adolescent will be included.

Young People with Disabilities: A Global Overview

> "Adolescents and youth with disabilities are among the neediest and most overlooked of all the world's children". (UNICEF, 1999, p. 1)

In the developing countries, the number of AWDs and Youths with Disability is between 75 and 150 million out of 90 to 150 million in the world (Groce, 2004). This will increase significantly over next few decades due to social and environmental changes, medical advancements, violence and war, risk taking behaviour of young people; such as extreme sports, motor vehicle accidents,, disability due to work related injuries, experimentations with drugs, and unprotected sex.

Data from the US suggest that each year, approximately 70,000 to 90,000 individuals acquire a traumatic brain injury resulting in a long-term, substantial loss of functioning (National Institutes of Health, 1999).

Youth with Disabilities in the Indian Context and the State of Uttar Pradesh

It is very difficult to find reliable data about the prevalence of disability in India. There are about 21.91 million persons with disability in India. This comes to 2.13 per cent of the population (Census, 2001). Both the reports have not clearly identified the AWDs or youth as a category within this population.

The problem with dealing with adolescents with disability aged 13-19 is that there are no such categories in the Census 2001. The Census has different age categories in its presentation of data.

Table 1: **Percentage of Enrolment in Government Schools (Primary and Upper Primary)**

States	*2003-04*	*2004-05*
Assam	99.5	99.5
Bihar	99.0	98.7
Gujarat	90.4	88.8
Jharkhand	97.6	97.6
Punjab	100.0	56.0
Uttar Pradesh	12.9	22.2
Uttranchal	20.7	19.8

In Uttar Pradesh, the enrollment is measurable (Table 1). The enrollment in Uttar Pradesh in 2003-04 is only 12.9 compared to Assam for 99.5 per cent and Punjab 100 per cent. Subsequently, in 2004-05, the enrollment rate in UP is only 22.2 compared to 99.5 in Assam 98.7 per cent in Bihar and 97 per cent.

Uttar Pradesh is one of the most backward states of India with a very rigid caste system still prevailing.

In Uttar Pradesh, the dropout rate of children at class 5 is 47 comparing to 11.63, 8.34, 11.22, and 9.41, in class 1, 2, 3, 4 respectively and to the 22.87 all India dropout rates. It is the third highest state in percentage of dropout in India. One (Mirzapur) district out of four selected for data collection has more that 50 per cent illiteracy and the other three (Has to be found out) Uttar Pradesh is one among the five most miserable states in India have been given special attention through its special status as BIMARU from the Central Government. The dropout rate up to class 10 in this state is as high as 55.48 per cent for boys and 72.92 per cent for girls.

Disability and Uttar Pradesh

Uttar Pradesh has the highest number of persons with disability, the number of population with disability is 3.6 million (which is a very high figure and the number is constantly growing) out 21.91 million for India. This says 16.43 per cent of the total population with disability are living only in the Uttar Pradesh. Comparing to the population ….. to 1028.7 million for the whole country as per 2001 census.

Education in Uttar Pradesh (UP)

Uttar Pradesh is among the worst performers in India among the states and union Territories in terms of Education. This also has implemented the "Education for All" programme as Sarva Siksha Abhiyan (SSA) since 5 years. Still having a literacy rate less than 60 per cent. The overall literacy rate in UP is 56.3 per cent in which 68.8 per cent male and only 42.2 per cent female are literate in the state.

Social Model of Disability

Traditionally, Persons With Disability(ies) (PWD) have been viewed through the medical model of disability. According to this model, the PWD is viewed as an object or a passive receiver with impairment, as a problem that needs correction. Therefore, the medical model comes out with many caring professionals often with a charitable sense; provide special care and services to them. As a result, the PWDs are either segregated or rejected by society. Very often, PWDs adopt a concept of considering themselves "unable" and have low self esteem.

Medical model of disabilities sees the individual as a problem; as it is surprisingly form the functional or psychological limitations within the individual due to the impairment and therefore seen as a personal tragedy needed to be looked at for betterment.

The Social model of disability (Oliver, 1990) on the other hand locates the problem

within the society rather than the individual with the impairment. It is not individual limitations, but the failure of the society to provide appropriate system and not to discriminate them as a group in providing access to resources for development, access to full participation in the society and respecting their human rights as dignified member of society. The "Disabled Peoples' Organisation" (DPO) in their international disability movements has offered a radical alternative to the medical conception of disability by asserting that, people are disadvantaged not so much by their impairments, but more as a result of the limitations imposed on them by attitudinal, social, cultural, economic and environmental barriers to their participation in society and the denial of their human rights (DPO, 2003).

Disparity in Education between Persons with Disability and Non-Disabled Persons

According to the 93rd amendment to the Indian Constitution, education is a fundamental right of all children between the ages of 6-14. This applies CWD as well. Though the right to education guaranteed the CWD yet disparities remain between facilities available to non disabled children and those with disability.

The disparity by the Government in education for CWD is clear with their reports published by different departments of the Government of India (GoI). The different department of the GOI has given very different estimation on issues of CWDs. The Department of Education in 1992 estimates 12.5 million CWDs as stated by Mukhopadhya and Mani (2002) in the 5 to 14 year age group and National Sample Survey in the year 1991 about 10.39 million for the same age group. The Ministry of Human Resource Development (HRD) has a very different estimation as only 1.6 million children with special need (CWSN) in the year 1991 for the same age group. Similar disparity in data in enrollment and drop out. National Institute of Educational Planning and Administration (NIEPA), 2005 state that the enrolment of CWD in India is dismal. There are less than 4 per cent of children and adolescents with disability are attending school. The National Council for Education, Research and Training (NCERT), says that less than 1 per cent of the CWD have access to schools (NCERT, 2005) in the same year the Ministry of HRD in the report on 2005 says about 77 per cent children or adolescents with disability are receiving education. These differences could be due to the different definitions of disabilities that have been taken by the various department of GoI, and also differences in what is considered to be education by them (Singal, 2006).

Inclusive Education in India

The GoI has proclaimed in most of its publications and reports that, GoI has been very sensitive to the educational need of the CWDs and has responded to all international and national initiative and have made sincere effort since last two and half decades towards providing comprehensive range of services towards education for CWDs. It has defined in the Inclusive education in their reports as "Zero rejection policy had to be adopted as every disabled child had to be educated ….." (District Primary Education Programme, 2001, p. 3) in contrast to this statement of

government's focus on bringing CWDs into the mainstream schools, it formulated a three member assessment team (psychologist, a doctor, and a special educator) who determine the suitability of a child to attend the mainstream or special school (Planning Commission, 2002).

This indicates that medical model is re-enforce where disability as a problem situated within the child and the social model of disability is completely neglected. The barriers operating within the education and larger societal systems have not been explored. These systems do not have taken responsibility to ensure that the needs of people with disabilities are fully taken into account.

Government's Emphasis on Segregation

It is mentioned that India is responsive to the international strategies on development of education for all, the reality over the past decade is that there is a significant increase in the number of special schools in India. Further, such divisions allow segregation to be an accepted practice (Ballard, 1995) and the children with disability are treated as special and different others (Lynch, 2001). Instead of focusing on an inclusive system, GOI has tried with alternative systems like non-formal education, home-based education. These alternative systems are criticized for the low quality of education they offer, resulting in reduced opportunities later in life (Dreze and Sen, 1995). The Government, continues to encourage such alternatives. Indeed, inclusive education is regarded as another such system that can be made available alongside range of options for children and adolescents with disabilities.

Education and Exclusion

The process which the child schooling outcome affects, the process of exclusion from school is complex. The process of exclusion involves decisions and resources of the parents or family, community the child belongs to and its characteristics, accessibility, availability and the policies and the actions taken by the state. Internal factors such as educational level of parents, type of family, socio-economic status and size of the family are also crucial for the child to continue schooling (Rajaram and Sunil, 2003). Considering the gender a girl has a more chance of dropping out of school than a boy since the boy has a higher expectation of returns to the family than the girl or there are younger siblings in the family to look after. It is clear from the above argument that the major determinant for a child or adolescent to continue schooling are (1) Family type, (2) number of siblings, and (3) disability.

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General Attitude of the College Students towards the Consequences and Impact of Television Advertising in Greater Noida

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Abstract

The purpose of this research study was to examine the consequences that television advertising has upon the general attitude of collage students towards television advertising in Greater Noida. The data was collected from the randomly selected 200 collage students including both genders. The result revealed that the television advertising in Greater Noida has a significant ethical and social consequences and positive economic one. The results indicated that there is significant positive general attitude of students towards the television advertising in Greater Noida. And also predicated the positive relationship between the students and advertiser. The respondents also demanded the regulations to control the proliferation of the advertising.

Introduction

Advertising is paid nonpersonal communication from an identified sponsor using mass media to persuade or influence an audience. Advertising on television allows to show and tell a wide audiencebusiness, product, or service. It also allows to actually demonstrate the benefits of ownership. One can show how the product or service works and how it's packaged so prospective customers will know what to look for at the point of sale. In advertising, it often takes multiple touch points to effectively influence consumers' purchasing behaviour.

Television advertising has been a popular medium for large retailers ever since the first began to appear in living rooms. With the arrival of cable television came lowered production costs and the opportunity to reach smaller, more targeted markets, making it a viable option for small to medium-size businesses as well.

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Some of the advantages to advertising small business on television include the following:

- ❖ TV reaches a much larger audience than local newspapers and radio stations and it does so during a short period of time.
- ❖ It reaches viewers when they're the most attentive.
- ❖ It allows one to convey message with sight, sound, and motion, which can give your business, product, or service instant credibility.
- ❖ It gives an opportunity to be creative and attach a personality to business, which can be particularly effective for small businesses that rely on repeat customers.

Literature Review

Chang and Chan-Olmsted (2005) found a positive relationship between GDP and advertising expenditures in 70 markets between 1991 and 2001.

Penny M. Simpson, Gene Brown and Robert E. Widing II (1998) proposed that unethi-cal perceptions of the advertisement significantly and negatively affect all advertising response variables like ad credibility, attitude toward advertising, attitude toward the advertiser, pleasure and ethical judgment.

Muhammad Shahbaz Shabbir, Shabana Kirmani, Hafiz Faiz-Ul-Hassan (2008) conducted a survey on children' attitudes towards television ad-vertisement in Pakistan and found that a greater percentage of respondent children disagree to the claim that television ads tells the truth.

Social advertising is a favoured method of disseminating warning messages (Carroll 1996; Peracchio & Luna 1998; Pechmann & Reibling, 2000; Wolburg 2001), as such, it would seem that the degree to which the advertisements are believed, may impact on the target audience's attitudes and intention to comply with the messages.

I shall also argue that a portion of advertising should be considered investment capitalized and depreciated rather than expensed. This argument has been made for decades (e.g. Weiss, 1969; and Bloch, 1974).

Recent evidence continues to suggest that advertising can be an important and durable source of profitable product differentiation (Nevo, 2001).

Research Objectives

The following were the objectives of this research study, namely:

1. To examine the consequences of the television advertising upon the college students.
2. To examine the students' attitude towards the television advertising in general.
3. To determine the impact of different consequences of the television advertising upon the college students' general attitude towards television advertising.

Research Methodology

Sample

With the view of investigating the attitude of students (both male and female) towards the television advertising. The targeted populace was confined to the collage student. A total of 250 questionnaire were distributed out of which 200 questionnaire were received.

Data Collection: Primary

The data was collected by the questionnaire. Questionnaire is considered as the best method of collecting the data because with the help of questionnaire; the researcher can get the right view of the customers about the questions. The questionnaire was distributed to the 250 collage students including both genders male and female out of which 200 were received.

Data Collection: Secondary

The secondary data was collected by the research papers, journals, books, and internet. The secondary data means we collect the information which is already searched.

Data Interpretation

Is the television advertising is deceptive?

Yes	No
99%	5%

When researcher examined television advertising, it was found that we once again find art and technology being used to create simulations that tell stories in an effort to evoke desired reactions from audiences. The legal judgment of deception in advertisement has evolved through hundreds of cases and has been adequately developed else where all that seems necessary for the judgment of deception an advertisement to have a potential for being perceived by some consumers in a way that is unfavourable with the true offering by the advertiser. Commercials take these elements-deceptive images of the products, and false claims and we have them into their various approaches.

Is television advertising greatly exaggerated?

Yes	No
95%	5%

Although a mere 14 per cent of viewers watch commercials on pre-recorded programmes without fast-forwarding, television remains by far the most memorable form of advertising, according to research. A survey undertaken among 4,199 UK consumers by researchers on behalf of management consultancy indicated that

36 per cent paid more attention to television commercials than any other medium, while 56 per cent rated it among their top three forms of advertising.

Only 10 per cent of respondents gave newspaper advertising the top slot, compared with a mere 2 per cent for online video adverts and half that number for online banner ads or adverts on Apple iPhones or iPads.

You perceive the television advertising as?

Entertainment	Porno-graphic	Quality Products
45%	25%	30%

The entertainment and knowledge functions and television advertisements are well received by the buying confidence and social image functions are not readily accepted among respondents. They enjoy watching television advertisement and utilize it to gain market information about products, services, brands and features. Most of respondents perceived that television advertisement as a pornographic because 25 per cent of advertisers use the bad images in advertisements which give the bad effects on children. 30 per cent respondents perceived the advertisements as a quality products because with the help of advertisements the know about the real quality of the products.

Is the television advertising ethical consequences?

Yes	No
45%	55%

The more than half of people think that the advertising is unethical for many reasons. The consequences of advertising shaping us can be harmful. To be sure, advertising, like other forms of expression, has its own conventions and forms of stylization, and these must be taken into account when discussing truthfulness. People take for granted some rhetorical and symbolic exaggeration in advertising; within the limits of recognized and accepted practice. It took advantage of children while they were young. Children learnt to find their identities with suitable advertisement on television.

Is the excessive television advertising is confusing the people?

Yes	No
75%	25%

Most of respondents believe that the excessive advertising often confuse people, because now a day's advertiser is shown the same product in advertisement. Many brands by which the customers are confused in selection that which one is good. Most of advertiser show the pornographic pictures in the advertisements which gives bad effects on children. It is done with the help of excessive advertising. And only 25 per

cent respondents believe that it does not confuse persons.

Is the television advertising encourages the people to buy things which they don't need?

Yes	No
85%	25%

The major criticism of advertising is the creation of false values and impels people to buy things they neitherneed nor want and that, in fact, may be actually harmful (e.g. cigarettes). In reply, its defenders say that advertising is meant to sell products, not create values; that it can create a new market for products that fill a genuine, though latent, need; and that it furthers improvement through free competition.

Advertisement encourages a desire for the products which people do not actually need. Advertisement can be found everywhere. It is a marketing strategy exercise by producers to promote their goods and services to the consumers. Successful advertisement give benefit to the advertiser but encourage the desire for product which people do not actually want.

Is the television advertising promotes competition and help curtail the prices of product and services?

Yes	No
53%	47%

Advertising in India is a highly competitive business. Today with the increasing consumer awareness, no business can be survive for long, without advertising. With growing business competition, it has become necessary to ensure right media mix to each target audience. Today, advertising agencies precisely taking care of needs and provide creative designs with concept and ideas. And it also helps in curtail the prices of the product because of the competition. Now a day every producer expends more of his income in advertisement for targeting the customers. That's why the competition is increased by which the producer curtail the price of the products.

Is the television advertising to be generally believable?

Yes	No
70%	30%

The television advertising is believable because with the help of advertising the persons know about the products, services, brands and features of the products. The believability is the extent to which an advertisement evokes sufficient confidence in its truthfulness making it acceptable by consumers. Believability focuses on the message and its content. The relevance of believability to the social issues has been applied to

information contained in citrates advertising. A person perceived relevance of the object based on inherent needs, values and interests. Those persons who believe that smoking or drinking to excess is not a health risk, exposure to anti smoking or anti drinking message may no change that beliefs.

Is the television advertising a source of economic growth?

Yes	No
60%	40%

Advertisements play a powerful construction role in economic growth of any country. For most successful companies the external demands are increasing. It was not so long ago that business only focus was economic growth. However the today's society is demanding much more from business. Society is looking at not only if a company makes money but how it contributes to society for the economic growth. Society is insisting that companies change their focus to incorporate social, cultural, and ethical responsible.

Are regulations to control proliferation in television advertising?

Yes	No
65%	35%

With the help of research (65%) respondent believes that the regulations are compulsory for control the proliferation in television advertising. Because many advertisements misguides the people and they encourage the desire for the products which they do not need. Now a day's many advertisers show the pornography in advertisements which throws the bad effects on children.

Conclusion

The research study was an effort to secure the sufficient evidence on the consequences of television advertising and their relationship to the general attitude of the collage students towards it. The result of the research is clearly expose that most of the respondents feel that the outgoing television advertisement unethical because of its deceiving and exaggerating nature for the putting more emphasis on the sex appeal. The result of the study also depict that the collage students demand lexical changes by the regulatory authorities with the view to controlling the television advertising. The result of the study explains very significant negative feelings of the respondents about the social consequences of the modern television advertising. The general attitude of the collage students towards the television advertising on the whole is positive, as confirmed by the result of the study.

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A Comparative Study of Anxiety Level of Congenital and Adventitious Visually Impaired Persons

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Abstract

The present investigation aimed at studying the anxiety level of congenitally and adventitiously visually impaired persons. Sinha anxiety scale was used to collect the data from visually impaired persons (n=200). Results were analyzed using the t-test. It was revealed that adventitiously visually impaired persons scored high on the anxiety scale than the congenitally visually impaired and the difference observed was statistically significant at 0.01 level.

Introduction

The term anxiety is usually defined as a diffuse, vague, very unpleasant feeling of fear and apprehension. The anxious person worries a lot, particularly about unknown dangers. In addition, the anxious individual shows combinations of symptoms like rapid heart rate, shortness of breath, diarrhea, loss of appetite, fainting, dizziness, sweating, sleeplessness, frequent urination and tremors. All these physical symptoms accompany fear as well as anxiety. Fear is different from anxiety as people who have fear can easily state about its cause(s) but people who feel anxious are not aware of cause(s) of their fear (Sarason and Sarason, 2002).

Many of the psychologists considered anxiety as a disorder and thus termed this phenomenon as anxiety disorder. Anxiety disorder is a form of maladjustment characterized by widespread problems without an obvious source with no obvious defensive reaction. Anxiety can be used synonymously for feeling of apprehension, dread or uneasiness. This feeling stems from fear but it is more than a fear of what might happen or what has happen than of an obvious, specific fear provoking situation. Anxiety is a psychiatric term with a variety of meaning (Fernald and Fernald, 2007).

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Anxiety is a psychological disorder that is characterized by a constant state of fear that is not linked to an identified source. Anxiety is a normal response to threatening and stressful situations. Over the course of a lifetime, an estimated 5 per cent of adults suffer from anxiety disorder – a persistent, growing undercurrent of free floating anxiety (Witchen, *et al.*, 1994). Barlour (1988) has mentioned that feeling aroused and not knowing why is known as anxiety. Persons having anxiety disorder is highly sensitive to criticism, and also has worries constantly about money, work, family matters and illness.

It is not clear, whether these are effects or causes of the disorder. Research suggests that people with anxiety disorder are hyper sensitive before they seek treatment and remain so after the disorder in remission (Eysanck, 1992).

Many people have anxiety attacks which are focused as three disorders namely panic, phobias and obsessive-compulsive-disorder. Although the different anxiety disorders are in some way distinct but most of the people who have one type of such anxiety attack are likely to exhibit the symptoms of at-least one other type as well (Brown and Barlow, 1992; Sanderson *et al.*, 1990). People all over the world suffer from intense anxiety; their specific symptoms are influenced by one's cultural upbringing (Good and Kleinman, 1985). In addition to these, there are few other forms of anxiety disorders like phobias, agora-phobia, social anxiety disorder, post-traumatic stress disorder and separation anxiety.

Many individuals experience some thoughts and actions of recurring nature. One may repeat a particular number over and over or be unable to forget an embarrassing experience. When such behaviour has no obvious purpose, and when it significantly disturbs normal functioning, it is considered as an obsessive-compulsive-disorder.

The essential feature is some persistent and senseless thought or action. The recurrent thought is called as obsession. A repetitive thought of contamination like shaking hands and the recurrent act, such as checking and counting again and again, are known as obsessive compulsive disorder.

In casual discourse the words anxiety and fear are often used interchangeably but in clinical usage both have distinct meaning. Anxiety is defined as an unpleasant emotional state for which the cause is either not readily identified or perceived to be uncontrollable or unavoidable, whereas, fear is an emotional and physiological response to a recognized external threat.

Anxiety in Visually Impaired

Visual impairment imposes few psychological restrictions which include the learning of concepts, abilities and achievements, personality traits and of course, the process of adjustment with the situation of visual impairment. The nature of crisis for the congenitally blind may appear to be quite different from the trauma experienced by the adventitiously blind persons. Individuals with any degree of restricted vision experienced traumas directly attributed to their impaired vision and after each trauma the affected person search for self acceptance (Tuttle, 2004).

The process of adjusting to blindness follows the path from trauma situation to self acceptance in the following manner.

> Trauma → Shock/Denial → Mourning and Withdrawl Succumbing and Depression → Reassessment and Reaffirmation → Coping with situation and Mobilization → Self Acceptance.

A number of factors influence the adjustment process of blindness. These are age of onset of blindness, degree of vision, stability of vision/prognosis and additional complication. In addition to these factors there are some psychological and social factors also which play their role in adjusting to the blindness. These factors includes intelligence, role of different professionals, availability of support services, employment etc.

Although there is little research evident on the anxiety related to blind in India, but discussion with experts and observations of blind people suggest the notion that anxiety amongst this population is almost inevitably present in all the blind people, particularly at the time of mobility. The visually impaired persons cannot see all their surroundings beyond their finger-tip; hence, they are at a great risk of meeting an accident or simply striking an unseen object in their way. Such feeling is often experienced by visually impaired person when they go out in an un-oriented environment. A blind person may not have any anxiety about is future during the stage of childhood up-till he is looked after by his family. Every blind person has to face the world, as he grows up and thus his anxiety also grows up because of his constant facing of unknown factors with the ever-present potential of danger contributes to a state of anxiety (Rathore, H.C.S., 1995).

There are no typical emotional problems, adjustments problems and anxiety unique to blind person. However, blind may develop certain emotional adjustment problems or even anxiety because of the restrictions imposed by the visual impairment and the attitudes of the society.

Need and Importance of the Study

Study by Jan, Sykanda and Groenneld (1990) revealed that neurological, developmental and cognitive differences exist between visually impaired, blind and persons with sight. Their study also revealed that visual impairment affects the total process of gathering and exchange of information and the effects is noticeable not only in motor skills, but also in cognition, language development skills.

Nisar (1990) conducted a study to find out the psychological problems of congenital and adventitious blind in relation to their academic attainments. The main findings of the study were that congenitally blinds are more extrovert than their counter, they have been also found superior in academic performances than adventitious blind children. The study further revealed that academic achievements of both groups are not affected by psychological problems as well as extroversion.

Knowlton, Woo and Silverstein (1991) analyzed the performance of visually impaired and non-visually impaired children on three accommodation tasks. Findings

of this study demonstrated that there were significant differences on all the three tasks. Seeing subjects were more skilled than visually impaired.

Jackson and Lawson (1995) investigated family environment and psychological distress in persons with visual impairment. The findings of this study strongly pointed out that since psychological distress in the subjects was presumed to be inversely reflective of adjustment to vision loss, the influence of the family social environment served as predictor of adjustment.

Evans J.R., Fletcher A.E., and Wormald R.P.L. (2007) conducted a research on anxiety of older visually impaired persons. They concluded that visually impaired people had a higher prevalence of depression compared with people with normal vision. They also concluded that older people with visual impairment are more likely to experience problems with functioning, which in turn leads to depression.

Review of the researches done earlier provoked the need of this study in order to find out the difference between congenitally and adventitiously visually impaired persons on their anxiety level in India. The central idea behind this theme is to find out the effect of age at onset of blindness on their psychology of adjustment, specially in the form of anxiety.

Instrument

To ascertain the anxiety level of congenital and adventitiously blind, the Sinha Anxiety Scale (1976) was used. The Sinha Anxiety Scale was developed for finding out the anxiety level of non disabled population in Indian context. In this scale there was no item based on visual ideas/experiences, hence there was no need of any adaptation and therefore, it was used to find out the anxiety level of adventitiously and congenitally visually impaired people. This scale contains one hundred items having options 'yes' and 'no'. The standard administration time for the entire test was approximately 20 minutes, however, in the present study 30 minutes were given to the subjects. The age range of the subjects was from 19-24 years. The test had high reliability both by split-half (Reliability index-0.92) and test-retest (Reliability index-0.85) methods. Standard error of measurement of the test is 6.10, indicating that true scores did not deviate greatly from their true values. An individual's level of anxiety is considered as very high, high, normal, low and very low having scores above 75, 60-75, 30-60, 20-30 and 0-20 respectively. Co-relational and factorial study of the test has shown that both physical and psychological forms, in which the anxiety manifests itself, are closely interrelated. Validity of the instrument was ensured through measuring validation against various anxiety scales. Hundal (1968) conducted a study on two hundred male students of Punjab University and found that scores on the Sinha Anxiety Scale were highly correlated with those on other anxiety scales. Against Taylor's Manifest anxiety Scale, Dutt's anxiety Questionnaire and Cattell's IPAT Anxiety Questionnaire, the correlation were 0.72, 0.72 and 0.70 respectively.

Sample

Two hundred visually impaired persons were used as sample. The entire sample was further divided into two major categories having one hundred subjects in each category.

These categories were congenitally and adventitious visual impairment. In the present study adventitious visually impaired persons means the persons who acquired visual impairment after the age of five years, as the experience/information collected during early 5 years is not considerable for its use in later age of life. Each category was further divided into two sub-categories i.e. fifty female and fifty male. Both the groups were equated on the variables like age, educational status, gender, extent of visual impairment, age of onset of blindness and stability of vision/prognosis.

Procedure

Sinha Anxiety Scale (SAS) was transcribed into Braille script for the use of visually impaired subjects. Before the start of the administration, rapport was established so that the subjects could answer the items in a cordial and fearless situation. In case of difficulty in understanding any item, the investigator went to the subject and made out the meaning of the concerned item(s). One marker was provided to each visually impaired subject and it was communicated to them to encircle the option (yes/no) with the marker. After answering the test, the scale was taken back from the subjects for analyzing it.

Variables

Variables are factors which might influence the anxiety of the sample and this effect may be confused with the effects of factors related to conditions of adventitious and congenital blindness. Situational variables like age of the sample, educational qualification of the sample, gender, extent of visual impairment, age of onset of blindness and stability of vision/prognosis etc were controlled administratively by keeping these situational variables alike.

Data Analysis

Mean scores of all the groups were calculated and the t-test was applied to find out the significant difference among different groups. The results obtained are given in the table below:

Table I: **Comparison of Different Groups on Anxiety**

#	*Groups*	*N*	*Mean*	*SD*	*t*
1	Congenital blind	100	56.89	9.41	11.71*
	Adventitious blind	100	69.43	5.33	
2	Adventitious blind (Male)	50	67.86	5.22	3.1*
	Adventitious blind (Female)	50	71	5.02	
3	Congenital blind (Male)	50	54.06	10.21	3.14*
	Congenital blind (Female)	50	59.72	7.65	
4	Congenital blind (Female)	50	59.72	7.65	8.74*
	Adventitious blind (Female)	50	71	5.02	
5	Congenital blind (Male)	50	54.06	10.21	8.57*
	Adventitious blind (Male)	50	67.86	5.22	

* Significant at 0.01

The above table shows that adventitious blind scored higher than congenital blind. Female adventitious blind subjects scored higher than male adventitious blind subjects. Adventitious female subjects scored higher than congenital female on anxiety. Furthermore, the differences were found between congenital female and congenital male and also between congenital male and adventitious male.

Discussion

Results showed that adventitious blind subjects scored higher than congenital, female adventitious subjects scored higher than adventitious male, adventitious female scored higher than congenital female on anxiety. In addition to this, significant differences were observed between congenital female and congenial male and also in congenital male and adventitious male on anxiety.

Present investigation revealed that adventitious blind subjects scored higher than congenital blind subjects, which clearly means that anxiety is linked to the occurrence of blindness. Blindness at later stage of age is considered as one of the psycho-physical disorder. These psycho-physical disorders turn into psychological disorder like anxiety, which play a significant role in the causation and maintenance of the condition arises with situation of the blindness. Some of the studies revealed that psychological factors like anxiety etc. are implicated in the development of abnormal situation in the blind persons. This abnormal situation can be perceived in the forms of maladjustment, ill-attitudes and autoeroticism. It was evident from the findings of the study of Cutsforth (1951) that certain emotional disturbances found in the blind as a group are due to their condition of blindness. Anxiety and tension produced by frustration, denial and isolation, anger, bargaining, depression and self stimulation process are the psychological factors that induced emotionality and thus disturbed the process of adjusting with the environment, as a result of which blind people feel anxious about various happenings around them. (Sommers, V., 1944)

It was also found in the present study that female adventitious blind scored higher than adventitious male blind subjects on anxiety. It seems that anxiety is linked more in females than in males. This may also reflect the common tendency of women to be more anxious than males. In addition to this, congenital males scored different from congenital female on anxiety in the present investigation. The congenital females scored higher than congenital males and difference was found significant at 0.01 level. This finding revealed in the sense that usually anxiety is more common among women than men. (Sarason and Sarason, 2002 and Carson *et. al.,* 2000). The present study also revealed that female adventitious subjects scored higher than congenital blind female and there was significant difference between congenital male and adventitious male on anxiety. This clearly indicates that situation of anxiety was linked to their condition of blindness and age of onset of blindness as well.

Conclusion

Anxiety is both a desirable and undesirable trait. Desirable, in the sense that it helps in motivating an individual to work harder to achieve the desired goal. Undesirable because

it makes one over-tensed. In the case of visually impaired individuals, the anxiety found is mostly undesirable because it has negative effect on their performance since it is the result of frustration and a host of other factors. Hence, it is very essential that professionals working with these individuals pay serious attention on helping them to establish positive adjustment to their vision loss.

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Analyzing Development Methodology

ATUL SRIVASTAVA[1]

Abstract

Using efficient development methods is necessary for software development. Because lot of software failed due to using inappropriate development methodology. This paper is analyzing deferent software development methodology in context with there strength their weakness, situation where most appropriate where least appropriate.

Introduction

A system development methodology refers to the framework that is used to structure, plan, and control the process of developing an information system. A wide variety of such frameworks have evolved over the years, each with its own recognized strengths and weaknesses. One system development methodology is not necessarily suitable for use by all projects. Each of the available methodologies is best suited to specific kinds of projects, based on various technical, organizational, project and team considerations. The researcher has considered each of the major prescribed methodologies in context with business, applications, organization, and technical environments. As a result, one can use any of the following linear and iterative methodologies for systems development, as appropriate.

Acceptable System Development Methodologies

Waterfall:

Framework Type: Linear

Basic Principles

1. Project is divided into sequential phases, with some overlap and splashback acceptable between phases.
2. Emphasis is on planning, time schedules, target dates, budgets and implementation of an entire system at one time.

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3. Tight control is maintained over the life of the project through the use of extensive written documentation, as well as through formal reviews and approval/signoff by the user and information technology management occurring at the end of most phases before beginning the next phase.

Strengths

1. Ideal for supporting less experienced project teams and project managers, or project teams whose composition fluctuates.
2. The orderly sequence of development steps and strict controls for ensuring the adequacy of documentation and design reviews helps ensure the quality, reliability, and maintainability of the developed software.
3. Progress of system development is measurable.
4. Conserves resources.

Weaknesses

1. Inflexible, slow, costly and cumbersome due to significant structure and tight controls.
2. Project progresses forward, with only slight backward movement.
3. Little room for use of iteration, which can reduce manageability if used.
4. Depends upon early identification and specification of requirements, yet users may not be able to clearly define what they need early in the project.
5. Requirements inconsistencies, missing system components, and unexpected development needs are often discovered during design and coding.
6. Problems are often not discovered until system testing.
7. System performance cannot be tested until the system is almost fully coded, and under-capacity may be difficult to correct.
8. Difficult to respond to changes. Changes that occur later in the life cycle are more costly and are thus discouraged.
9. Produces excessive documentation and keeping it updated as the project progresses is time-consuming.
10. Written specifications are often difficult for users to read and thoroughly appreciate.
11. Promotes the gap between users and developers with clear division of responsibility.

Situations where Most Appropriate

1. Project is for development of a mainframe-based or transaction-oriented batch system.
2. Project is large, expensive, and complicated.
3. Project has clear objectives and solution.
4. Pressure does not exist for immediate implementation.

5. Project requirements can be stated unambiguously and comprehensively.
6. Project requirements are stable or unchanging during the system development life cycle.
7. User community is fully knowledgeable in the business and application.
8. Team members may be inexperienced.
9. Team composition is unstable and expected to fluctuate.
10. Project manager may not be fully experienced.
11. Resources need to be conserved.
12. Strict requirement exists for formal approvals at designated milestones.

Situations where Least Appropriate

1. Large projects where the requirements are not well understood or are changing for any reasons such as external changes, changing expectations, budget changes or rapidly changing technology.
2. Web Information Systems (WIS) primarily due to the pressure of implementing a WIS project quickly; the continual evolution of the project requirements; the need for experienced, flexible team members drawn from multiple disciplines; and the inability to make assumptions regarding the users' knowledge level.
3. Real-time systems.
4. Event-driven systems.
5. Leading-edge applications.

Prototyping

Framework Type: Iterative

1. Not a standalone, complete development methodology, but rather than an approach to handling selected portions of a larger, more traditional development methodology (i.e., Incremental, Spiral, or Rapid Application Development (RAD)).
2. Attempts to reduce inherent project risk by breaking a project into smaller segments and providing more ease-of-change during the development process.
3. User is involved throughout the process, which increases the likelihood of user acceptance of the final implementation.
4. Small-scale mock-ups of the system are developed following an iterative modification process until the prototype evolves to meet the users' requirements.
5. While most prototypes are developed with the expectation that they will be discarded, it is possible in some cases to evolve from prototype to working system.
6. A basic understanding of the fundamental business problem is necessary to avoid solving the wrong problem.

Strengths

1. Addresses the inability of many users to specify their information need, and the difficulty of system analysts to understand the user's environment, by providing the user with tentative system for experimental purposes at the earliest possible time.
2. Can be used to realistically model important aspects of a system during each phase of the traditional life cycle.
3. Improves both user participation in system development and communication among project stakeholders.
4. Especially useful for resolving unclear objectives; developing and validating user requirements; experimenting with or comparing various design solution: or investigating both performance and human computer interface.
5. Potential exists for exploiting knowledge gained in an early iteration as later iterations are developed.
6. Helps to easily identify confusing or difficult functions and missing functionality.
7. May generate specifications for a production application.
8. Encourages innovation and flexible designs.
9. Provides quick implementation of an incomplete, but functional, application.

Weaknesses

1. Approval process and control is not strict.
2. Incomplete or inadequate problem analysis may occur whereby only the most obvious and superficial needs will be addressed, resulting in current inefficient practices being easily built into the new system.
3. Requirement may frequently change significantly.
4. Identification of non functional elements is difficult to document.
5. Designers may prototype too quickly, without sufficient up-front user need analysis, resulting in an inflexible design with narrow focus that limits future system potential.
6. Designers may neglect documentation, resulting in insufficient justification for the final product and inadequate records for the future.
7. Can lead to poorly designed systems. Unskilled designers may substitute prototyping for sound design, which can lead to a "quick and dirty system" without global consideration of the integration of all other components. While initial software development is often built to be a "throwaway", attempting to retroactively produce a solid system design can sometimes be problematic.
8. Can lead to false expectations, where the customer mistakenly believes that the system is "finished" when in fact it is not; the system looks good and has adequate user interfaces, but is not truly functional.

9. Iterations add to project budgets and schedules, thus the added costs must be weighed against the potential benefits. Very small project may not be able to justify the added time and money, while only the high-risk portions of very large, complex projects may gain benefit from prototyping.
10. Prototype may not have sufficient checks and balances incorporated.

Situations where Most Appropriate

1. Project is of development for an online system requiring extensive user dialog, or for a less well-defined expert and decision support system.
2. Project is large with many users, interrelationships, and functions, where project risk relating to requirements definition needs to be reduced.
3. Project objectives are unclear. Pressure exists for immediate implementation of something.
4. Functional requirements may change frequently and significantly.
5. User is not fully knowledgeable.
6. Team members are experienced (particularly if the prototype is not a throw-away).
7. Team composition is stable.
8. Project manager is experienced.
9. No need exists to absolutely minimize resource consumption.
10. No strict requirement exists for approvals at designated milestones.
11. Analysts/users appreciate the business problems involved, before they being the project.
12. Innovative, flexible designs that will accommodate future changes are not critical.

Situations where Least Appropriate

1. Mainframe-based or transaction oriented batch system.
2. Web-enabled e-business systems.
3. Project team composition is unstable.
4. Future scalability of design is critical.
5. Project objectives are very clear; project risk regarding requirements definition is low.

Incremental

Framework Type: Combination Linear and Iterative

Basic Principles

1. Various methods are acceptable for combining linear and iterative system development methodologies, with the primary objective of each being to

reduce inherent project risk by breaking a project into smaller segments and providing more ease-of-change during the development process:

2. A series of mini-Waterfalls are performed, where all phases of the Waterfall development model are completed for small part of the system before proceeding to the next increment; OR

Overall requirements are defined before proceeding to evolutionary, mini-Waterfall development of individual increments of the system, OR

The initial software concept, requirements analysis, and design of architecture and system core are defined using the Waterfall approach, followed by iterative prototyping, which culminates in installation of the final prototype (i.e., working system).

Strengths

1. Potential exists for exploiting knowledge gained in an early increment as later increments are developed.
2. Moderate control is maintained over the life of the project through the use of written documentation and the formal review and approval/signoff by the user and information technology management at designated major milestones.
3. Stakeholders can be given concrete evidence of project status throughout the life cycle.
4. Helps to mitigate integration and architectural risks earlier in the project.
5. Allows delivery of a series of implementations that are gradually more complete and can go into production more quickly as incremental releases.

Gradual implementation provides the ability to monitor the effect of incremental changes, isolate issues and make adjustments before the organization is negatively impact.

Weaknesses

1. When utilizing a series of mini-Waterfalls for a small part of the system before moving on the next increment, there is usually lack of overall consideration of the business problem and technical requirement for the overall system.
2. Since some modules will be completed much earlier than others, well-defined interfaces are required.

Difficult problems tend to be pushed to the future to demonstrate early success to management.

Situations where Most Appropriate

Large projects where requirements are not well understood or are changing due to external changes, changing acceptations, budget changes or rapidly changing technology.

Web Information Systems (WIS) and event driven system.

Leading-edge applications.

Situations where Least Appropriate

Very small projects of very short duration.

Integration and architectural risk are very low.

Highly interactive applications where the data of the project already exists (completely or in part), and the project largely comprises analysis or reporting of the data.

Spiral:

Framework Type: Combination Linear and Iterative

Basic Principles

1. Focus is on risk assessment and on minimizing project risk by breaking a project into smaller segments and providing more ease-of-change during the development process, as well as providing the opportunity to evaluate risk and weigh of project continuation throughout the cycle.
2. "Each cycle involves a progression through the same sequence of steps, for each portion of the product and for each of its levels of elaboration, from an overall concept-of-operation document down to the coding of each individual programme."
3. Each trip around the spiral traverses four basic quadrant: (1) determine objectives, alternatives, and constraints of the iteration; (2) evaluate alternatives; identify and resolve risks; (3) develop and verify deliverables from the iteration; and (4) plan the next iteration.

Begin each cycle with an identification of stakeholders and their win conditions, and end each cycle with review and commitment.

Strengths

1. Enhances risk avoidance.
2. Useful in helping to select the best methodology to follow for development of a given software iteration, based on project risk.

Can incorporate Waterfall, Prototyping, and Incremental Methodologies as Special Cases in the framework, and provide guidance as to which combination of these models best fits a given software iteration, based upon the type of project risk. For example, a project with low risk of not meeting user requirements, but high risk of missing budget or schedule targets would essentially follow a linear Waterfall approach for a given software iteration. Conversely, if the risk factors were reversed, the Spiral methodology could yield an iterative Prototyping approach.

Weaknesses

1. Challenging to determine the exact composition of development methodologies to use for each iteration around the Spiral.
2. Highly customized to each project, and thus is quite complex, limiting reusability.
3. A skilled and experienced project manager is required to determine how to apply it to any given project.
4. There are no established controls for moving from one cycle to another cycle. Without controls, each cycle may generate more work for the next cycle.
5. There are no firm deadlines. Cycles continue with no clear termination condition, so there is an inherent risk of not meeting budget or schedule.

Possibility exists that project ends up implemented following Waterfall framework.

Situations where Most Appropriate

1. Real-time or safety-critical systems.
2. Risk avoidance is a high priority.
3. Minimizing resource consumption is not an absolute priority.
4. Project manager is highly skilled and experienced.
5. Requirement exists for strong approval and documentation control.
6. Project might benefit from a mix of other development methodologies.
7. A high degree of accuracy is essential.

Implementation has priority over functionality, which can be added in later versions.

Situations where Least Appropriate

1. Risk avoidance is a low priority.
2. A high degree of accuracy is not essential.
3. Functionality has priority over implementation.

Minimizing resource consumption is an absolute priority.

Rapid Application Development (RAD)

Framework Type: Iterative

Basic Principles

1. Key objective is for fast development and delivery of a high quality system at a relatively low investment cost.
2. Attempts to reduce inherent project risk by breaking a project into smaller segments and providing more ease-of-change during the development process.

3. Aims to produce high quality systems quickly, primarily through the use of iterative Prototyping (at any stage of development), active user involvement, and computerized development tools. These tools may include Graphical User Interface (GUI) builders, Computer Aided Software Engineering (CASE) tools, Database Management System (DBMS), fourth-generation programming languages, code generators, and object-oriented techniques.
4. Key emphasis is on fulfilling the business need, while technological or engineering excellence is of lesser importance.
5. Project control involves prioritizing development and defining delivery deadlines or "timeboxes". If the project starts to slip, emphasis is on reducing requirements to fit the timebox, not in increasing the deadline.
6. Generally includes Joint Application Development (JAD), where users are intensely involved in system design, either through consensus building in structured workshops, or through electronically facilitated interaction.
7. Active user involvement is imperative.
8. Iteratively produces production software, as opposed to a throwaway prototype.
9. Produces documentation necessary to facilitate future development and maintenance.
10. Standard systems analysis and design techniques can be fitted into this framework.

Strengths

1. The operational version of an application is available much earlier than with Waterfall, Incremental, or Spiral frameworks.
2. Because RAD produces systems more quickly and to a business focus, this approach tends to produce systems at a lower cost.
3. Engenders a greater level of commitment from stakeholders, both business and technical, than Waterfall, Incremental, or Spiral frameworks. Users are seen as gaining more of a sense of ownership of a system, while developers are seen as gaining more satisfaction from producing successful systems quickly.
4. Concentrates on essential system elements from user viewpoint.
5. Provides the ability to rapidly change system design as demanded by users.
6. Produces a tighter fit between user requirements and system specifications.
7. Generally produces a dramatic savings in time, money, and human effort.

Weaknesses

1. More speed and lower cost may lead to lower overall system quality.
2. Danger of misalignment of developed system with the business due to missing information.
3. Project may end up with more requirements than needed (gold-plating).

4. Potential for feature creep where more and more features are added to the system over the course of development.
5. Potential for inconsistent designs within and across systems.
6. Potential for violation of programming standards related to inconsistent naming conventions and inconsistent documentation.
7. Difficulty with module reuse for future systems.
8. Potential for designed system to lack scalability.
9. Potential for lack of attention to later system administration needs built into system.
10. High cost of commitment on the part of key user personnel.
11. Formal reviews and audits are more difficult to implement then for the complete system.
12. Tendency for difficult problems to be pushed to the future to demonstrate early success to management.
13. Since some modules will be completed much earlier than others, well-defined interfaces are required.

Situations where Most Appropriate

1. Project is of small-to-medium scale and short duration.
2. Project scope is focused, such that the business objectives are well defined and narrow.
3. Application is highly interactive, has a clearly defined user group, and is not computationally complex.
4. Functionality of the system is clearly visible at the user interface.
5. Users possess detailed knowledge of the application area.
6. Senior management commitment exists to ensure end user involvement.
7. Requirements of the system are unknown or uncertain.
8. It is not possible to define requirements accurately ahead of time because the situation is new or the system being employed is highly innovative.
9. Team members are skilled both socially and in terms of business.
10. Team composition is stable; continuity of core development team can be maintained.
11. Effective project control is definitely available.
12. Developers are skilled in the use of advanced tools.
13. Data for the project already exists (completely or in part), and the project largely Comprises analysis or reporting of the data.
14. Technical architecture is clearly defined.
15. Key technical components are in place and tested.
16. Technical requirements (e.g., response times, throughput, database sizes, etc.)

are reasonable and well within the capabilities of technology being used. Targeted performance should be less than 70 per cent of the published limits of technology.

17. Development team is empowered to make design decisions on a day-to-day basis without the need for consultation with their superiors, and decisions can be made by a small number of people who are available and preferably co-located.

Situations where Least Appropriate

1. Very large, infrastructure projects; particularly large, distributed information systems such as corporate-wide databases.
2. Real-time or safety-critical systems.
3. Computationally complex systems, where complex and voluminous data must be analyzed, designed, and created within the scope of project.
4. Project scope is broad and the business objectives are obscure.
5. Applications in which the functional requirements have to be fully specified before any programmes are written.
6. Many people must be involved in the decisions on the project, and the decision makers are not available on a timely basis or they are geographically dispersed.
7. The project team is large or there are multiple teams whose work needs to be coordinated.
8. When user resource and/or commitment is lacking.
9. There is no project champion at the required level to make things happen.
10. Many new technologies are to be introduced within the scope of the project, or the technical architecture is unclear and much of the technology will be used for the first time within the project.
11. Technical requirements (e.g., response times, throughput, database sizes, etc.) are tight for the equipment that is to be used.

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Cloud Computing and Service Oriented Architecture

SHIV MANISH BAJPAI[1]

Abstract

The goal of this paper is to provide detailed understanding of cloud computing framework and its relation to service oriented architecture. This will include discussion on core concepts of virtualization, types of cloud computing services, and some of the commercial services available from various vendors.

Introduction

Cloud is emerging as a phenomenon and it is happening at the confluence of several trends in the software industry. Service oriented architectures; virtualization and internet based application delivery have all matured over past several years. Cloud is a major next step in this area. Cloud computing allows various tasks to be executed over a network using various services. Different types of services including infrastructure as a service, platform as a service, software as service have been proposed for cloud computing. Some of the benefits of cloud computing include reduced cost, scalability, better performance, service oriented and availability of agile application development. There are many types of cloud computing services available from various vendors. Computational cloud services provide on demand commuting resources that are scalable, inexpensive and can run any type of application. Storage cloud services all clients to store their large datasets on provider's storage banks. Application cloud allows access too many services that a developer can integrate to build their application.

Cloud computing is an emerging computing technology that uses internet and central remote servers to maintain data and applications. It allows consumers and businesses to use applications without installation and access their personal files at any computer with internet access. This technology also allows for much more efficient computing by centralizing storage, memory, processing and bandwidth. Cloud

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computing is broken down into three segments: "applications," "platforms," and "infrastructure." Each segment serves a different purpose and offers different products for businesses and individuals around the world. In June 2009, a study conducted by Version One found that 41 per cent of senior IT professionals actually don't know what cloud computing is and two-thirds of senior finance professionals are confused by the concept, highlighting the young nature of the technology. In Sept. 2009, an Aberdeen Group study found that disciplined companies achieved on average an 8 per cent reduction in their IT budget from cloud computing and a 16 per cent reduction in data center power costs.

Life before Cloud Computing

Traditional business applications—like those from SAP, Microsoft, and Oracle—have always been too complicated and expensive. They need a data center with office space, power, cooling, bandwidth, networks, servers, and storage. A complicated software stack and a team of experts to install, configure, and run them. They need development, testing, staging, production, and failover environments. When you multiply these headaches across dozens or hundreds of applications, it's easy to see why the biggest companies with the best IT departments aren't getting the applications they need. Small businesses don't stand a chance.

Cloud Computing: A Better Way

Cloud computing is a better way to run business. Instead of running applications themselves, they run on a shared data center. When one use any application that runs in the cloud, just log in, customize it, and start using it. That's the power of cloud computing. Businesses are running all kinds of application in the cloud these days, like CRM, HR, accounting, and custom-built application. Cloud-based application can be up and running in a few days, which is unheard of with traditional business software. They cost less, because there is no need to pay for all the people, products, and facilities to run them. And, it turns out they're more scalable, more secure, and more reliable than most application. Plus, upgrades are taken care of for you, so your application get security and performance enhancements and new features automatically. The way one pay for cloud-based application is also different. It's all rolled up into a predictable monthly subscription, so one only pay for what he/she actually use.

The Cloud Computing Framework

Cloud computing framework has five key components. The first, virtualization technology, can be thought of as an underpinning of cloud computing. By abstracting software from its underlying hardware, virtualization lays the foundation for enabling pooled, shareable, just-in-time infrastructure. On top of this technology base, cloud computing principal offerings can be categorized into three main groups: infrastructure-as-a-service, platform-as-a-service, and software-as-a-service. Cloud optimization is the final, critical piece of the framework encompassing the solutions that enable cloud

computing to scale and to deliver the levels of performance and reliability required for it to become part of a business's core infrastructure.

Cloud Computing and Virtualization

The concept of cloud computing and how virtualization enables it, offers so many innovation opportunities that it is not surprising there are new announcements every day. What customers need to do, however, is to not take announcements at face value, but instead dig into new product offerings to understand if something is really utilizing the full potential of virtualization and cloud computing. In many cases the collaboration, efficiency, high utilization, and productivity enabled by a combination of virtualization and cloud computing is not available because many firms are using fancy regrinding to create the appearance of innovation. Investigator have seen many traditional providers make announcements over the last six months when in reality they are repackaging without the necessary innovation. In the end, innovation will win the hearts and minds of the customer, but today they need to work hard to separate the wheat from the chaff.

The Infrastructure as a Service

IaaS is the ability to provide computing resources—processing power, network bandwidth, and storage—as a service. Some traditional hosting providers claim to have IaaS, but in reality they provision dedicated hardware to customers, put virtualization on top and call it IaaS. True IaaS offerings, however, are truly pay-as-you-go services that can be turned on and off at any time with almost no notice. When a provider has the ability to serve truly transient burst requirements, then they are capable of claiming they offer cloud-based, pay as you go IaaS. It offers cost savings and risk reduction by eliminating the substantial capital expenditures required when deploying infrastructure or large-scale applications in-house. Cloud providers generally offer a pay-as-you-go business model that allows companies to scale up and down in response to real-time business needs, rather than having to pay up front for infrastructure that may or may not get used, or having to overprovision resources to address occasional peaks in demand. To date, IaaS has seen heaviest adoption among small to mid-sized ISVs and businesses that don't have the resources or economies of scale to build out large IT infrastructures. Examples of cloud IaaS offerings include Akamai (NetStorage and CDN services), Amazon (Elastic Compute Cloud/EC2 and Simple Storage Service/S3), GoGrid (Cloud Servers and Cloud Storage) and Joyent (Accelerator).

Platform-As-A-Service

A fast-growing category of cloud computing offerings is Platform-as-a-Service (PaaS), which consists of offering that enable easy development and deployment of scalable Web applications—without the need to invest in or manage any underlying infrastructure. By providing higher-level services than IaaS, such as an application framework and development tools, PaaS generally provides the quickest way to build

and deploy applications, with the trade off being less flexibility and potentially greater vendor lock-in than with IaaS. The PaaS landscape is broad and includes vendors such as Akamai (Edge Computing), Elastra and RightScale (platform environments for Amazon's EC2 infrastructure), Google (App Engine), Microsoft (Azure), and Oracle (SaaS Platform).

Software-As-A-Service

The best enterprise-ready examples of are cloud computing in the Software-as-a-Service (SaaS) category, where complete end-user applications are deployed, managed, and delivered over the Web.SaaS continues the cloud paradigm of low-cost, off-premises systems and on-demand, pay-per-use models, while further eliminating development costs and lag time. This gives organizations the ability to bring services to the market quickly and frees them from dependence on internal IT cycles. The speed and ease with which SaaS applications are purchased and consumed has made this category of cloud computing offerings the most widely-adopted today. Important cloud SaaS vendors and services include Adobe Web Connect, Cisco WebEx, Google Mail, Hotmail, Yahoo! Mail (communications applications—the largest segment of the SaaS market according to Gartner Group, Market Trends: Software as a Service Worldwide, 2007-2012, Sept. 2008), Demandware (e-Commerce), NetSuite (Accounting, ERP, CRM, and e-Commerce), SAP Business ByDesign (HR, Finance and other ERP applications), and Workday (HR, Finance, and Payroll).

Cloud Optimization Services

The final piece of the cloud computing framework, cloud optimization services provide performance, scale and reliability for all of the previously-described components of cloud computing. They enable cloud offerings to operate across an unpredictable and unreliable Internet while delivering the robust levels of service required by enterprises.

The value of cloud optimization services can be understood as a direct function of application adoption, speed, uptime, and security. Without optimization services, cloud offerings are at the mercy of the Internet and its many bottlenecks—and the resulting poor performance has a direct impact on the bottom line. For example, a site leveraging IaaS components that fail to scale for a flash crowd will lose customers and revenue. Likewise, a SaaS application that is slow or unresponsive will suffer from poor adoption. Thus, cloud optimization is essential for cloud computing services to be able to meet enterprise computing requirements.

The Challenge Ahead for Virtualization and Cloud Computing

The innovation will continue and there will be massive value created for customers over the next two to three years. However, the market may get overheated with hype and some customers will be over sold and become skeptical. The vision and potential of cloud-based virtualization is very real; but over the next 24 months there will be separation between those that truly deliver on the vision and those that just reposition the same way of doing business. As the separation occurs and leaders emerge, there

will be consolidation and it will likely be lead by the biggest players such as Google, Amazon, VMWare, Citrix, Microsoft, HP, and IBM. Some of these big players will innovate—Google, Amazon and VMWare are at the top of the list, some will quickly follow—likely Citrix and Microsoft, and some will rely entirely on acquisition—HP and IBM.

System Oriented Architecture (SOA)

SOA builds on computer engineering approaches of the past to offer an architectural approach for enterprise systems, oriented around the offering of services on a network of consumers. A focus of this service-oriented approach is on the definition of service interfaces and predictable service behaviours.

Comparing Cloud Computing and SOA

Table 1: **Overlapping Concepts for Cloud Computing and SOA**

Cloud Computing	*Overlap*	*SOA Via Web Services*
Software as a service (SaaS)	Application Component/Services on Layer	System of System Integration Focus
Utility Computing	Network Dependence	Driving Consistency of Integration
Data Distribution in a Cloud	Cloud/IP WAN–supported Service invocations	Enterprise application Integration
Platform as Service	Levering Distributed Software Assets	Reasonably Mature Implementing Standards (REST, SOAP, UDDI, etc.)
Standards Evo Different Layer of the Stack	Producer/Consumer Model	

The most important overlap occurs near the top of the cloud computing stack, in the area of Cloud Services, which are network accessible application components and software services, such as contemporary Web Services. Both cloud computing and SOA share concepts of service orientation. Services of many types are available on a common network for use by consumers. Cloud computing focuses on turning aspects of the IT computing stack into commodities that can be purchased incrementally from the cloud based providers and can be considered a type of outsourcing in many cases. For example, large-scale online storage can be procured and automatically allocated in terabyte units from the cloud. Similarly, a platform to operate web-based applications can be rented from redundant data centers in the cloud. However, cloud computing is currently a broader term than SOA and covers the entire stack from hardware through the presentation layer soft ware systems. SOA, though not restricted conceptually to soft ware, is oft en implemented in practice as components or soft

ware services, as exemplified by the Web Service standards used in many implementations. These components can be tied together and executed on many platforms across the network to Provide a business function.

Network Dependence

Both cloud computing and SOA count on a robust network to connect consumers and producers and in that sense, both have the same foundational structural weakness when the network is not performing or is unavailable. John Naught on elaborates on this concern when he writes that "with gigabit Ethernet connections in local area networks, and increasingly fast broadband, network performance has improved to the point where cloud computing looks like a feasible proposition. If one bet their futures on the network being the computer, he/she ought to be sure that it can stand the strain."

Forms of Outsourcing

Both concepts require forms of contractual relationships and trust between service providers and service consumers. Reuse of an SOA service by a group of other systems is in effect an "outsourcing" of that capability to another organization. With cloud computing, the outsourcing is more overt and oft en has a fully commercial flavor. Storage, platforms, and servers are rented from commercial providers who have economies of scale in providing those commodities to a very large audience. Cloud computing allows the consumer organization to leave the detailed IT administration issues to the service providers.

Challenges, Benefits, and the Future

Cloud computing infrastructures can allow enterprises to achieve more efficient use of their IT hardware and software investments. They do this by breaking down the physical barriers inherent in isolated systems, and automating the management of the group of systems as a single entity. Cloud computing is an example of an ultimately virtualized system, and a natural evolution for data centers that employ automated systems management, workload balancing, and virtualization technologies. A cloud infrastructure can be a cost efficient model for delivering information services, reducing IT management complexity, promoting innovation, and increasing responsiveness through real-time workload balancing. While this may be true on a machine-to-machine level, it is not true from a broader perspective—meaning that it is important for us to remember that even Cloud Computing (as it is defined and constructed today) is tied to specific data centers operated by the Cloud vender. An application may "appear" on any single or number of servers in a data center, but they are on a server—just not necessarily the same server(s).In this way it is only a small step forward from conventional hosting environments (though rapid scalability—up and down—and reduced start-up costs are significant advantages).The technology is moving to where applications and Web sites will potentially exist in/on multiple data centers in geographically disparate locations, but there will still be a finite number of locations.

This important concept changes the way we will think about true scalability, stability, performance, and security as Cloud Computing develops and gains adoption. Cloud of Clouds Make no mistake; Cloud Computing is a revolutionary concept that will—more than most other advances—bring us to Internet ubiquity where space and bandwidth are delivered like municipal water service or electricity. But we are still a long way from there. Remember that, in the early days of electricity, local utilities and even individual neighborhoods had vastly different ideas about how electricity should be delivered: different amperage, wattage, etc. This is a pretty good analogy for where Cloud Computing is today. Each Cloud under development is unique and incompatible. Applications and sites will need to be developed for a specific Cloud platform (an important cost-basis to consider), but this will change in the long term.

One of the problems with most contemporary Cloud Computing providers is that they still see the creation of Cloud networks as a way to "lock in" customers for other products and services—not as the viable multi-billion user access model that it might more naturally be. Amazon gets some credit in this regard because their "device-based" approach makes it a bit less complicated to migrate out of their cloud into a more conventional hosting environment. However, cloud to cloud migrations are still very complex or not available at all.

Conclusion

Finally, cloud application don't eat up your valuable IT resources, so your CFO will love it. This lets you focus on deploying more application, new projects, and innovation. Cloud computing is a simple idea, but it can have a huge impact on your business.

As one of today's hottest IT topics, cloud computing is covered daily across the press, from academic journals to technology bogs, and even the travel section of the New York Times (Cohen, Billie, "In the Cottage, Yet Industrious," New York Times, April 16, 2009). Most of the hype has focused on offerings in the public cloud, where centralized architectures are currently commonplace. The drawbacks of this type of architecture have already begun to surface, as many of the major cloud vendors have suffered widely-reported outages and downtime over the last year. Now, as cloud computing moves out of hype and experimentation mode into more mainstream adoption, businesses running applications on cloud platforms will rely on cloud optimization services to make the cloud responsive, scalable, and secure. Cloud Computing won't have a single vendor or a single cloud answer; its incarnations will be as varied as the applications and services it supports. As The Economist recently stated that the computing sky will probably always be cloudy, meaning that there will be many private and public clouds, and they will come in all shapes and sizes. And most of them will be interconnected." But regardless of the path the cloud computing evolution takes, cloud optimization services will play a critical role in driving its growth, with innovative solutions that enable success for both cloud computing providers and the enterprises that use them.

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In vitro Flowering in Ringal Bamboo *Drepanostachyum Falcatum*

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Abstract

Drepanostachyum falcatum (Nees) Keng f. commonly known as Ringal, Gola Ringal, Gol Ringal is found in the hills of North-Western India-Himachal Pradesh, Garhwal, Kumaon and is also known from Kashmir and Western Nepal at an altitude of 1500-2100 m. This species was introduced in Nilgiri Hills, Europe, South and North America, Laos and Entebbe Botanic Garden, Uganda. The importance of this species is highlighted by the diverse uses it is put to by the locals. It forms the basic raw material for their huts, tools, utensils and other items. Its culms are much valued for fishing rods, also used for making hookah pipes, arrows, etc. Leaves are used for thatching, roofings, animal fodder in winter, etc and young shoots are edible. It is also used in compounding many medicines. Seeds of Drepanostachyum falcatum were obtained from Seed Testing Lab, Forest Research Institute, Dehradun, India. The husks were removed, and seeds were washed with cetavelon for 5 minutes and then surface sterilized with 0.1 per cent $HgCl_2$ for 20 minutes and then rinsed 3-4 times with autoclaved distilled water. The surface sterilized seeds were then transferred to MS medium supplemented with cytokinin BAP (3.0 mg/l). Multiple shoots were obtained on this medium and cultures of individual seeds were marked as one separate seed line. Five seed lines were established. In vitro flowering was noticed in three of these seed lines. In vivo flowering was observed in one seed line but no seed set was observed. In the present study presence of all floral parts is observed. Flowering does not occur in vivo until Drepanostachyum falcatum plant has grown vegetatively for around 30 years. Thus, controlled induction of flowering in vitro may provide a useful model to study flowering patterns and to develop hybridization methods in bamboos.

One of the most unique, fascinating and versatile groups of plants known to mankind is bamboo. It is a fast growing natural resource whose rate of biomass generation is unsurpassed in the plant kingdom. It is without doubt one of the most

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important non-wood forestry products and one of the most important agricultural plants in the world.

Estimates regarding future use of bamboo indicate that there will be a huge shortage of bamboo planting material. Conservation of bamboo genetic resource is particularly important because flowering in most cases is irregular and uncertain and therefore, both *in-situ* and *ex-situ* conservation is desirable. The conventional methods of propagation of bamboo, sexual as well as vegetative are beset with many problems that restrict their multiplication on a large scale. Large scale propagation through seed is unreliable on account of the long flowering cycle, short viability of the seeds, extremely poor seed set during sporadic/off season flowering and large scale consumption of seeds by wild animals. Due to the scarcity of seeds, bamboo is generally propagated by vegetative methods that include clump division-offsets, rhizome, whole Culm cuttings, layering, Culm segment cutting, branch cutting and macro proliferation. There is limited availability of conventionally used propagates and the rate of production is beset with problems such as the bulkiness of the propagates, their transport over long distances and low survival. Moreover propagates obtained via vegetative methods have been found successful only if they root. Root promoting substances (auxins) have little effect on bamboo rooting (mature cuttings) and planted material (vegetatively propagated plants) have been found to develop very slowly (Hassan, 1980). Further year round, vegetative propagation is difficult due to seasonal specificity of material (Saxena and Bhojwani, 1993). Replanting efforts using offsets or culm cuttings are slow and expensive. Propagation with seeds is cheaper and easier with the seedlings being raised in nurseries and transplanted to the forest. This, however, offers only a limited answer to the problem since most of the economically important bamboos flower only once every 30-100 yrs. The sporadic flowering that takes place annually in isolated clumps yields few viable seeds from large mass of empty florets. Viable seeds obtained from gregarious flowering also suffer much damage due to rodents, insect attacks and rapid loss of viability due to poor storage.

Drepanostachyum falcatum (Nees) Keng f. commonly known as Ringal, Gola Ringal, Gol Ringal is found in the hills of North-Western India-Himachal Pradesh, Garhwal, Kumaon and is also known from Kashmir and Western Nepal at an altitude of 1500-2100 m. This species was introduced in Nilgiri Hills, Europe, South and North America, Laos and Entebbe Botanic Garden, Uganda. *Drepanostachyum falcatum* flowers irregularly at times, gregarious over large areas, while few culms may be found in flowers almost every year. This belongs to the irregularly flowering group with the flowering and seedling cycle of 28-30 years (Naithani and Chandra, 1998). The importance of this species is highlighted by the diverse uses it is put to by the locals. It forms the basic raw material for their huts, tools, utensils and other items (Mc Clure, 1956). Its culms are much valued for fishing rods, also used for making hookah pipes, arrows, etc.

Leaves are used for thatching, roofings, animal fodder in winter, etc. and young shoots are edible. It is also used in compounding many medicines and in making a lotion for cleaning wounds (Kapur, 1991). The species is an important indicator of disturbances and its gregarious undergrowth indicates areas of lesser disturbances

(Upreti *et al.,* 1985). It can be used as a tool for soil and water conservation due to its higher regenerative potential in open areas (Uniyal and Awasthi, 2000). It is also planted as an ornamental (Chittendon, 1956). This species is notably resistant to honey fungus (Huxley, 1992).

Seeds of *Drepanostachyum falcatum* were obtained from Seed Testing Lab, Forest Research Institute, Dehradun, India. The husks were removed, and seeds were washed with cetavelon for 5 minutes and then surface sterilized with 0.1 per cent $HgCl_2$ for 20 minutes and then rinsed 3-4 times with autoclaved distilled water. The surface sterilized seeds were then transferred to MS medium supplemented with cytokinin BAP (3.0 mg/l). Multiple shoots were obtained on this medium and cultures of individual seeds were marked as one separate seed line. Five seed lines were established. *In vitro* flowering was noticed in three of these seed lines (isolated and marked A-C). *In vivo* flowering was observed in one seed line but no seed set was observed.

Some interesting phenomena found associated with flowering are as follows:

- In the present study, the multiple shoots of *Drepanostachyum falcatum* of the flowering line exhibited *in vitro* flowering when they were maintained on rooting medium (MS medium + NAA) transferred from multiplication medium (MS + BAP) for a long period of 45 days. The flowering line was accompanied by rooting in the shoots.
- In the three flowering lines out of the five seed lines established, 80 per cent flowering (the shoots producing inflorescence) occurred. No flowering was observed in the remaining two seed lines.
- The flowers produced *in vitro* showed all floral parts as palea, lemma, anthers, stigma and ovary. Floral parts were small in size as compared to *in vivo* produced florets.
- Shoots bearing inflorescence turned brown and finally died. However, if subcultured on shoot multiplication medium (MS + 3.0 mg/l BAP) produced new shoots.
- The non-flowering shoots of flowering line survived developed and produced roots. These plantlets when transferred to polybags survived and behaved normally.
- Sporadic flowering also occurred on shoot multiplication medium (MS +3.0 mg/l BAP) only when cultures were left without subculturing for more than 6-8 weeks. No rooting was observed in such cases.
- New inflorescence (1-3) also developed from the base of the shoot propagates in all the flowering lines.
- *In vivo* flowering occurred in one of the tissue culture raised plant of *D. falcatum* of the *in vitro* flowering line. However, no seed set was observed. Not all the tissue culture raised plants of flowering line produced *in vivo* flowering. The structure of the flowers produced *in vitro* was found to be similar to that of flowers observed *in vivo*.

The sporadic *in vitro* flowering was observed in present case of *Drepanostachyum falcatum* as had been the case in few bamboo species (Nadgauda *et al.,* 1990; Chambers *et al.,* 1991; Das and Rout, 1991; Ansari *et al.*, 1996; Nadgauda *et al.*, 1997; Lin and Chang, 1998; Gielis *et al.,* 1999). In most of these reports culture conditions did not have any effect on the flowering response and it was random and at low frequency. Nadgauda *et al.* (1990) were able to induce flowering in *Bambusa bambos* and *Dendrocalamus brandsii* by three subcultures on media containing 5 per cent (v/v) coconut water and BAP (2.2 µM) in MS medium. In the present study, incubation of flowering line (A to C) cultures on BAP supplemented medium (during shoot multiplication) was necessary for flowering. However, flowering occurred when these shoots were transferred from BAP medium to NAA (5.0 mg/l) supplemented medium and maintained for a long period of 45 days. Ansari *et al.* (1996) reported *in vitro* precocious flowering from multiple shoots of *Bambusa arundinacea* when they were maintained on rooting medium (MS medium + NAA) for a long period of 45 days. They reported that multiple shoots of the seedling line used, possessed the genetical potential for precocious flowering which got expressed on accumulation of sufficient cytokinin (BAP) level due to undergoing several cycles on the multiplication medium.

Flowering also occurred in those cultures which were left without subculture for more than 6 weeks, suggesting that initial BAP treatment was necessary, followed by stress conditions. In the present case, stress conditions were met in rooting medium and when cultures were left prolong without subculturing. It is evident from *in vitro* flowering observations that the induction of flowering in bamboos has a strong physiological basis (Janzen, 1976; Sharma, 1996). The search for the exact causative agents to induce flowering remains very difficult. Cytokinins and sugars may also be involved in some way (Scorza, 1982; Chambers *et al.,* 1991; Bernier, 1996; Nadgauda *et al.*, 1997; Lin and Chang, 1998; Gielis *et al.*, 1999) in the induction of flowering in many plants. Sharma (1996) and Arya *et al.* (1993) reported that cytokinin helps in expression of stimulus during tissue culture. Most of the reports on *in vitro* induction of flowering used cytokinin for induction of flowering and flowering was expressed after 2-3 subcultures on MS medium supplemented with cytokinin BAP. Generally MS medium was used for flowering.

Also, in the present case five culture lines were established and maintained. Out of these, three lines showed *in vitro* flowering, suggesting flowering response to be tree specific. This tree specific character response has been observed in other *in vitro* culture studies (Han *et al.*, 1993). In the present study presence of all floral parts is observed. Flowering does not occur *in vivo* until *Drepanostachyum falcatum* plant has grown vegetatively for around 30 years. Thus, controlled induction of flowering *in vitro* may provide a useful model to study flowering patterns and to develop hybridization methods in bamboos.

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Profiling of Tourists Visiting Chitrakoot

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Abstract

In this paper it has been attempted to identify the tourist's different motives to visit the place, their preferences regarding accommodation, their means of transport used to reach here, and their total stay at Chitrakoot. It is a profiling of tourist visiting Chitrakoot. Questionnaire has been used to collect the data. It has been found that most of the respondents use railway as a means of transport because of shortage of good conditioned buses and road. Chitrakoot is a religious place hence most of the respondent's motive of visit is piligrimage.

Introduction

Chitrakoot is a religious place and known as a place of Lord Shri Ram, where Shri Ram his spouse Sitaji and brother Laxman spent more than eleven years out of their 14 years exile. Chitrakoot is first known mention in the Valmiki Ramayan. Valmiki speaks of Chitrakoot as an eminent holy place inhabited by the great saints, abounding in monkeys, bears and various other kinds of fauna and flora. People visiting Chitrakoot take dip in the Holy River 'Mandakini' and walk around the Kamadgiri Parvat.

Review of Literature

Ministry of tourism, Government of India has done a study with GFK Mode Pvt. Ltd. New Delhi in June 2010. The objective of this study was to ascertain infrastructure gaps in Chitrakoot, Uttar Pradesh and Madhya Pradesh so that these gaps can be filled and volume of tourists can be increased.

Richa (2006) suggested in her paper that the main form of tourism in Himachal Pradesh is circuit tourism with business tourists constituting a significant proportion of the arrivals. Entertainment and sight seeing is the main purpose of travel to Himachal. The current study aims to explore if tourism to Himachal is of a concentrated type and also to view the pattern of concentration and dispersal over a period of time.

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Nature based tourism in the Great Himalayan National Park in the state has been reviewed for its current status and potential to see if it is a viable alternate form of tourism in the state.

Objective of the Study

- ❖ To examine the tourists profile visiting Chitrakoot.
- ❖ To evaluate the means of transport used by tourists visiting Chitrakoot.
- ❖ To evaluate tourist preferences regarding accommodation.

Data Collection

The profiling of the tourist visiting Chitrakoot is based on the questionnaire surveyed during the month of June 2010. The convenience sampling method was used.

Primary and secondary data collection method has been used to complete the research. For collection of the primary data instrument has been designed on the basis of the review of literature.

Analysis and Interpretation of Data

It has been found that 16 per cent respondents are in 16 to 25 years age bracket, 23 per cent respondents are 26 to 35 years age bracket, 20 per cent respondents are 36 to 45 years age bracket, 23 per cent respondents are 46 to 55 years age bracket, and 18 per cent respondents are in above 55 years of age. A majority (61%) of people visiting Chitrakoot is above 35 years of age that shows a religious aspect of tourist and need more attention.

Data showed that more than half (66%) of the respondents are male while rest less than half (34%) of the respondents are female. And it also has been found that majority (87%) of the respondents are organising their holiday by themselves while less than one fourth (13%) respondents visiting Chitrakoot through travel agency. The more percentage of self organised type of holiday represents a low awareness of Chitrakoot to the travel organiser hence it is required to prepare a good promotion plan for the travel organiser that ensure increase in tourist arrivals at Chitrakoot.

From the data it is clear that less than half (39%) of the respondents have come to know about Chitrakoot by friends, less than half (39%) of the respondents by other sources and rest 14 per cent and 8 per cent by internet and travel agency respectively. A promotional campaign is needed to spread information about Chitrakoot in websites as well as in newspapers. Most of the people are getting information about Chitrakoot through relatives or friends.

On the basis of the data collected, it is clear that half (50%) of the respondents are using train to come to Chitrakoot while less one fourth (25%) of the respondents are coming by bus and rest 21 per cent and 4 per cent respondents are coming through car and motor bike respectively. Most of the people visiting Chitrakoot are by train only 25 per cent people arriving here through buses because the condition of road is not good and Chitrakoot is not well connected with other nearest tourist destination.

The data says that less than half (46%) of the respondents are staying 1-3 nights at Chitrakoot while, approx one fourth (26%) of the respondents are staying for 4-7 nights and rest 18 per cent and 10 per cent of the respondents are staying for more than seven and 0 nights respectively at Chitrakoot. The major proportions of tourists are staying for 1 to 7 nights.

This is also clear from the data that half (50%) of the respondents using budget hotels for accommodation while one fourth (25%) of the respondents are staying at hotels and rest (25%) of the respondents are staying at *dharamshala*.

Based on the data it is clear that more than half (51%) of the respondents are visiting Chitrakoot for pilgrimage and less than one fourth (17%) of the respondents are visiting for nature and beauty and rest 11 per cent, 12 per cent, 4 per cent, 3 per cent, 1 per cent, and 1 per cent respondents are visiting for holiday and relaxation, entertainment, cultural offer, work, health and beauty and to meet friends respectively. 51 per cent of the respondents are visiting Chitrakoot with the pilgrimage motive because it is a religious place whereas approx 40 per cent people visiting Chitrakoot for spending holidays or other than pilgrimage. If government can provide better infrastructure at every tourist spot in Chitrakoot such as flower plants in Parikrama Marg, Clean Holy River, four lane road to each and every tourist spot with road side greenery, better shopping facilities, and rural tourism.

Conclusion

To provide a better perception about Chitrakoot in the minds of visitors, it is important to provide some light and sound show related to the whole exile spent at Chitrakoot by Shri Ram his spouse Sitaji and brother Laxman. Approx half of the people are staying at Chitrakoot for 1 to 3 nights. A local tour package is required to increase the length of stay. Government of both the state (MP and UP) should provide better amenities for the tourists visiting Chitrakoot. Some of the tourists visiting Chitrakoot for leisure hence Government must need to invest in site beautification.

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Impact of Preschool Education on the Language Development of Visually Impaired Children

NIHAR RANJAN MISHRA[1]

Abstract

Language is considered to be a system of communicating with other people using sounds, symbols and words in expressing a meaning, idea or thought. Language can be used in many forms, primarily through oral and written communications as well as using expression through body language in the form of non verbal language. Research studies show that children especially those coming from deprived homes can be beneficially exposed to instructional processes even before the formal school system begins to operate. The Pre School programme contain a variety of objects and activities where the child is able to label the objects and experiments and interact with the environment and so the pre school can make up for the child's deprivation and promote his language development. The present study intends to delivers the pre school education and its impact on the different aspects of growth and development of children with visual impairment, and to find out whether attending pre school helps in improving the language development of children between 3 to 5 years.

Key words: Preschool, education, language development, visually impaired children, rural and urban areas, curriculum.

Introduction

Language is considered to be a system of communicating with other people using sounds, symbols and words in expressing a meaning, idea or thought. Language can be used in many forms, primarily through oral and written communications as well as using expression through body language in the form of non verbal language. Language is a creation of our social needs; it is so complex that any attempt to define it may create many problems. The early years of the visually impaired child is the most crucial period where the foundation for the maximum mental development laid down. The home environment and the interaction of the child with its mother and dear ones are important factors in moulding the child's life. Basically no language deficit is found in

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visually impaired children, they speak like their sighted counterpart. They learn language like normal children. How ever there are two different views in this regard. Advocates of the first view say that blind have no difficulty in learning the language. Schlaegel (1953) found no difference between blind and sighted in respect to oral word or phrase. Bateman (1965) found that visually impaired relatively impaired in terms of language development and functioning. The advocates of the second view say that visual defects affect the language learning and functioning, though it is not hereditary or innate rather this lack of development is found because the visually impaired is not able to perceive the objects visually. Cutsforth (1951) concludes that visually impaired live in an unreal world in the sense that they can not describe their surroundings in the words of sighted population.

Research studies show that children especially those coming from deprived homes can be beneficially exposed to instructional processes even before the formal school system begins to operate. The Pre School programme contain a variety of objects and activities where the child is able to label the objects and experiments and interact with the environment and so the pre school can make up for the child's deprivation and promote his language development. A survey of researches on language of children in India reveals that most of the studies are on the vocabulary of the children. The basic vocabulary of children was studied in Hindi by Rukmani Ramachandra (1960), in kannada by Chandrasekaraiah (1964), in Marathi by Tamjane (1965) and functional vocabulary of the preschool children was studied by Arunjathai and Srinivasachari (1968). Basic Hindi vocabulary in Haryana was studied in the case of children of eleven plus by vakil (1954), of twelve plus by Raval (1959), and thirteen plus by Lakdawala (1960). Paricha and Das (1959) studied the written vocabulary of children of class VI. Muralidharan and Bannerji (1973) studied language development in the kindergarten children in relation to their parental occupation, Suriyakanthi (1982) studied the vocabulary of disadvantaged children and Pankajam (1979) developed a compensatory language curriculum for children who live in deprived areas.

Scope of the Study

A survey of related studies reveals that very few researches were conducted on the language development of pre schoolers with visual impairment between 3 to 5 years, to determine whether attending preschool has any effect on language development of children, so that preschool curriculum could be enriched and preschool education provided especially for children with visually impaired children. So the investigator is interested in the pre school education and its impact on the different aspects of growth and development of children with visual impairment, wanted to find out whether attending pre school helps in improving the language development of children between 3 to 5 years.

Objectives of the Study

- ❖ To study the language development of children with visual impairment between 3 to 5 years of age.

- ❖ To find out whether there is any relationship between the socio-economic status and language development of children with visual impairment.
- ❖ To find out whether the language development of children with visual impairment from urban areas differs significantly from that of children with rural areas.

Hypotheses

After considering similar studies, the following null hypotheses were formulated.

- ❖ There will be no significant difference in the language development of children with visual impairment who attend and who not do not attend preschools.
- ❖ There will be no significant difference in the language development of children with visual impairment from different socio-economic status.
- ❖ There will be no significant difference in the language development of children with visual impairment from rural and urban areas.

Methodology

The investigation was attempting to find out the role of pre school experiences in the acquisition of language skills by children with visually impaired from urban and rural areas, it was necessary to select the preschools from both the rural and urban areas, hence a survey of all the pre schools run and managed in Uttar Pradesh was conducted with the help of a checklist. On the basis of the scores obtained, the best six preschools were selected for drawing the sample, three each from urban and rural areas. The total sample size was 30, of which 15 were drawn from a population which was not attending the preschool and 15 from the population which was attending the preschool.

To observe the children, the time sampling and situational sampling methods were followed. The children were observed in three different situations (*i*) while playing with the peer group, (*ii*) in the company of the adults at home and (*iii*) their responses to a set of three dimensional objects and some toys with tactile difference. Each observation in the first two situations extended over a period of 15 minutes for three days and running record of their speeches was made. In the third situation in order to stimulate the children to speak stimulus objects were provided, which includes common animals, insects, birds, vegetables, flowers, vehicles, play equipment, household equipment, writing materials, model of railway station, and a big doll was used to identify the different parts of the body.

In his study the investigator used different statistical techniques like mean, standard deviation, and t test to calculate values for each group for urban and rural areas and the combined means, standard deviation, analysis of variance and t value were also calculated for each group.

Results and Discussions

The language abilities of the children with visual impairment who attended the

preschools seem to be significantly higher than those who did not, in the use of nouns, verbs, and vocabulary. The differences are found to be significant at 0.01 levels.

The difference was also found to be significant at 0.05 levels in the use of verb adjuncts, compound verbs, and numerals which suggest that the children who attend preschools have a better language skill. No significant difference was observed in the use of pronoun self, noun adjuncts, and total number of words spoken. In an analysis of the types of sentences spoken by the children, it was found that there was significant difference in the construction and use of complete and compounds sentence. The difference was found to be at 0.05 level in the use of simple and complex sentences. There is evidence (Tamjane, 1965) to show that children who are exposed to better family background even if do not attend the preschool are able to speak better than children from the non enabling homes. However even the non enabling children are also able to speak well when they attend the preschool. This analysis favours the children who attend the preschool with regard to the constructions and use of sentences.

There was significant difference between both groups and within groups which suggest that language development of children with visual impairment depends on their socio-economic status and their attending preschool. The study by Srinivasan, R (1969) confirmed the view that children of middle class families have better language ability than the children of lower socio-economic status, as the difference was found to be significant at 0.01 levels.

There was significant difference in the language development of children between rural areas and urban areas as from the analysis it was found that children from urban areas seem to be significantly higher in the language ability than children who hail from the rural areas. The study by Bevil (1983) also supports this result. The reason for the difference favouring the urban children might be due to the opportunities available to them at home and the exposure to the variety of things and experiences around them even if they do not go to the preschools. Where as in the rural areas, the performance of the children who attended the preschools was better than that of children who did not. This might be due to the objects and the experiential content provided in the preschools by a trained persons. It suggests the impact of pre school education on the language development of preschool children.

Conclusion

It may be said that attending preschools with adequate facilities and good programmes, especially in the rural areas definitely plays a prominent role in the language development of children with visual impairment. This asserts the value of the preschools and the necessity of strengthening preschool education and making it compulsory in the educational system, to provide a strong foundation for future higher education.

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Using Technology to Make Lectures Effective

ARYA AGNIHOTRI[1]

Abstract

In today's era, students are being more technology savvy hence method of teaching in primary classes or in intermediate, needed more new techniques to inject everything in the mind of students. In this paper it is examined that how to teach in the primary or intermediate classes by using new technologies that will help teachers to make their lectures effective. Teaching aids play a critical role in the classroom and create multi dimensions to define any thing. It is obvious that traditional teaching is not able to make students active in the classroom therefore educators should take some actions to make their classroom entertaining, live, and effective. In this paper a self assessment of academic programme is briefly explained.

Introduction

Teaching is that profession where the success of the teachers of the teacher depends on the ability of the students but there have been such teachers who have made even the worst of students the best of learners. So it is evident the understanding of a subject taught by a teacher depends on the methods of teaching adopted by that teacher. Methods make the material easier to comprehend and assimilate. A teacher would only pay attention towards his methods only when he is completely dedicated towards his profession and if his profession is his passion.

Implementing and maintaining a regular improvement of quality of education in Primary and Intermediate is highly desirable and at the same time is challenging. As the environment is changing a continuous improvement in teaching methods is also required. Continuous improvement is one of the core values of Total Quality Management. This approach is built around the premise that every step of the process of a service and of an operation has room for improvement.

The learning community consists of both students and teachers. Students benefit from effective teaching and learning strategies inside and outside the classroom. This

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paper focuses on teaching strategies you can use in the classroom to foster effective learning.

Helping students learn is our challenge as teachers. Identifying effective teaching methods, therefore, is our challenge as we both assess the effectiveness of our current teaching style and consider innovative ways to improve our teaching to match our students' learning styles.

Review of Literature

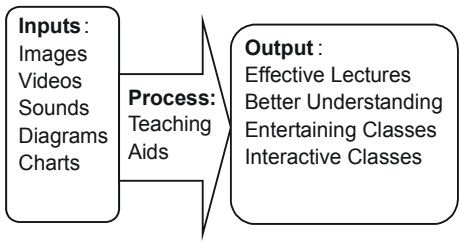
How to manage large classes effectively is a popular topic among faculty in education. Carbone (1998) and Stanley and Porter (2002) have produced books focused on the large class environment, offering strategies for course design, student engagement, active learning, and assessment.

The findings of a study by de Caprariis, Barman, and Magee (2001) suggested in his paper that lectures lead to the ability to remember facts, but discussion among students produces higher level comprehension. Further, research on group-oriented discussion methods has suggested that team learning and student-led discussions produce favourable student performance outcomes as well as encourage greater participation, self confidence and leadership ability (Perkins & Saris, 2001; Yoder & Hochevar, 2005).

To improve the quality education in the classroom especially in Primary and Intermediate classes that is the base of student's education, it is very important to make the educators trained for their effective delivery. In this paper it has been self assessed that whether new technologies help in making teaching effective or not. To examine this model has been used.

This model shows the input by which teaching can be made effective and how better results can be found.

The Model



Application of the Model

The model has been applied in a classroom of 25 students in primary class, and 20 students of Intermediate class of science students. And it has been found that it has a significant effect in the students of both the classes. In the primary classes videos and Pictures has a great effect on students, their grasping power increased. Videos were also effective to explain the communication between two or more person. Educators

should use these all the inputs with the help of PowerPoint presentation to explain all the subjects. Diagrams have been used in the art classes and were useful to illustrate different ways of making art in the primary classes.

In the intermediate classes, some different inputs have been used and it has been found that language classes need more attention on sounds. Sounds have made effect on pronunciation of words whereas; videos, charts and diagrams were very useful in science subjects. Students of intermediate classes were very interactive and active in classrooms and were able to answer the questions on the same day and after a week. In the English language class, students have been assigned a task to see and hear the pronunciation of different words displayed in PowerPoint presentation. And after that it has been found that they pronounce it well and made their lips shape as showed in the video.

Choose examples that are relevant to the students. Examples that the students can observe first hand as opposed to those in a film or on television are better. Try and find examples that the students can observe on campus or at home. Pull examples from current events like, for instance, explaining the cause for a design failure of a collapsed bridge recently in the news. Consider having the students prepare a written report to document what they have learned. Have them include a list of the basic principles involved.

Conclusion

Now in nutshell, it can be said that use of all the inputs to make lectures effective are fruitful and has a great impact on student understands power. They grasp the things easy and quickly. Therefore if educators want to make their lectures effective they should be very sincere when they make PPTs. With the use of technology they can make strong base of the student's education.

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Integrating ICT in Teacher Education

AMIT KUMAR AMAN[1]

Abstract

The quality of education largely depends on the quality of teachers. Without maintaining that, no innovation should be expected. Therefore there is need to empower teachers entering to the system by strengthening teacher education system and in this context, the Information and Communication Technologies (ICT) come as a savior for life-long empowerment of the teachers. The present paper provides a framework for ICTs in teacher education and describes the essential conditions that must be met for successful technology integration and also highlights the attempts already initiated for strengthening the teacher education system.

Introduction

In every country in this world the process of deviation from learning society to knowledge society is going on. The speed of this process is depends only on the educational system which contains teaching, learning and quality of education etc. All nations attempt to impart quality education and today when there is virtual explosion of data and information, it is highly essential that teacher education is of the highest quality and standard. The quality of education largely depends on the quality of teachers. Without maintaining that, no innovation should be expected. Therefore there is need to empower teachers entering to the system by strengthening teacher education system and in this context, the Information and Communication Technologies (ICT) come as a savior for life-long empowerment of the teachers. Though the county is far ahead in the field of ICT, the potentialities of the ICT have not been fully exploited in India for teacher empowering teacher education system. New information and communication technology has been playing an important role in empowering teacher education system. Educational institutions are functioning under constantly changing environment. Due to the satellite communication and high speed information the world is brought very close to us. As a result radical changes take place in the school curriculum, which demand competent and trained teachers. In

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order to qualitative improvement of education, sound programme of teacher education is essential. As success of implementing new educational policies depends on the ability and competence of the teachers, they should be provided opportunities for their professional growth. Electronic media including films, T.V., Internet etc. are to be used to refresh the teachers.S

Basic Principles of Effective ICT Integration

The Society for Information Technology and Teacher Education has identified basic principles for development of effective ICT teacher education (SITE, 2002). These are:

- Technology should be infused into the entire teacher education programme throughout their teacher education experience, students should learn about and with technology and how to incorporate it into their own teaching. Restricting technology experiences to a single course or to a single area of teacher education, such as methods courses, will not prepare students to be technology-using teachers. Pre-service teacher education students should learn about a wide range of educational technologies across their professional preparation, from introductory and foundations courses to student teaching and professional development experiences.
- Technology should be introduced in context. Teaching pre-service students basic computer literacy-the traditional operating system, word processor, spreadsheet, database, and telecommunications topics not enough. As with any profession, there is a level of literacy beyond general computer literacy. This more specific or professional literacy involves learning to use technology to foster the educational growth of students. Professional literacy is best learned in context. Pre-service students should learn many uses of technology because they are integrated into their coursework and field experiences. They should see their professors and mentor teacher's model innovative uses of technology; they should use it in their own learning, and they should explore creative uses of technology in their teaching. Teacher educators, content specialists, and mentor teachers should expose pre-service teachers to regular and pervasive modeling of technology and provide opportunities for them to teach with technology in K-12 classrooms.
- Students should experience innovative technology-supported learning environments in their teacher education programme. Technology can be used to support traditional forms of learning as well as to transform learning. A PowerPoint presentation, for example, can enhance a traditional lecture, but it does not necessarily transform the learning experience. On the other hand, using multimedia cases to teach topics that have previously been addressed through lectures may well be an example of a learning experience transformed by technology. Students should experience both types of uses of technology in their programme; however, the brightest promise of technology in education is as a support for new, innovative, and creative forms of teaching and learning

(SITE, 2002). While the proposed ICT in teacher education curriculum should aspire to no less, the trajectory of the development for countries, regions, and organizations should be appropriate to the level of resources, including expertise, leadership, and ICTs themselves. A widespread approach to reach a scattered population of teachers and organizations that are ready to move a small step forward with very limited resources may be helpful at an early stage.

Integration of ICT in Teacher Education Institutions

Teacher education institutions are faced with the challenge of preparing a new generation of teachers to effectively use the new learning tools in their teaching practices. For many teacher education programmes, this daunting task requires the acquisition of new resources, expertise and careful planning. In approaching this task it is helpful to understand the impact of technology on global society and the implications for education, the extensive knowledge that has been generated about how people learn and what this means for creating more effective and engaging student-centered learning environments, the stages of teacher development and the levels of adoption of ICTs by teachers, the critical importance of context, culture, leadership and vision, lifelong learning, and the change process in planning for the integration of technology into teacher education, the ICT competencies required of teachers related to content, pedagogy, technical issues, social issues, collaboration, and networking, the importance of developing standards to guide implementation of ICTs in teacher education, To effectively integrate the information and communication technologies (ICTs) in Teacher Education Institutions, the following essential conditions must be met:

- Students and teachers must have sufficient access to digital technologies and the Internet in their classrooms, schools, and teacher education institutions.
- High quality, meaningful, and culturally responsive digital content must be available for teachers and learners.
- Teachers must have the knowledge and skills to use the new digital tools and resources to help all students achieve high academic standards.

Current Status of Using ICT in Teaching Learning Process in India Educational Radio and Television

From the use of radio to spearhead the green revolution, to satellite-based, one-way and interactive television for rural development in some of the most backward districts, to today's thrust for the use of open and distance learning models to serve the larger populations, India has tried it all, with varying degrees of success. Radio has a penetration of 100 per cent in the country while satellite and terrestrial television cover nearly 80 per cent of the country"

Gyan Darshan was launched in January, 2000, with three completely digital and round-the-clock TV channels dedicated to education. In November 2001, an FM radio channel, Gyan Vani was launched through different FM stations in the country.

Vidya Vahini: In 2002, the Indian government launched a project called Vidya Vahini to provide for IT and IT-enabled education in 60,000 schools in India over three years (India has about 1.1 million schools), as part of a Rs. 6,000 crore (USD 1.2 billion) project. Beginning with a pilot covering 150 schools the government proposes to equip each school with a computer lab equipped with Internet, Intranet and television to facilitate video-conferencing, Web-broadcasting and e-learning.

EDUSAT: Launched in September 2004 at a cost of USD 20 million, Edusat is India's first dedicated education satellite. With footprints covering the entire country, Edusat makes it possible for receive Direct to Home quality broadcasts of educational programmes using any television set and a low-cost receiver. The result of a collaboration between the Indian Space Research Organization (ISRO) and, the Union Ministry of Human Resource Development, state departments of education and the Indira Gandhi National Open University. This infrastructure is available to all sectors of education, but primarily to publicly funded and implementing agencies that will be responsible for transmission and programming for their defined audiences Broadband connectivity in all secondary schools: In 2006, The Government of India, Ministry of HRD, Department of Secondary and Higher Education issued an order for the Constitution of an Integration Action Plan to implement Broadband connectivity in all secondary schools.

Digital Library and Information Network (2007) Based on recommendations made by different state open universities and distance education institutions (DEIs), the Indira Gandhi National Open University's (IGNOU) board of management has approved the National Open and Distance Learners Library and Information Network (NODLINET) initiative. The expert committee set up by the ministry for human resource development (MHRD) has endorsed the initiative, which will now be implemented in a phased manner within a period of five years.

ICT Tools for Teaching and Training in India

As new technologies transform the workplace, workers must have the ability to cope with change, take responsibility for their learning, think critically to solve problems, and work cooperatively in a team environment. Interactive instructional technology can prepare students to meet these workplace challenges while keeping them motivated and interested. In the past, some instructional media failed to fulfill their promise. However, interactive videodisc and CD-ROM offers a combination of media—computers, video, audio, and graphics that has greater potential to increase opportunities for individuation, diagnosis, and self-pacing, to give access to a wide variety of information resources, to bring resources to isolated or limited-mobility populations to stretch instructors' capabilities, to reach more students, to accommodate different learning styles and to provide better ways to measure skills than standardized testing.

T4 Project (2002): In September 2002, the T4 project was launched in Karnataka, Chhattisgarh and Jharkhand, and subsequently, in the state of Madhya Pradesh. The programme offers interactive radio instruction (IRI) and educational television for mathematics, science and English as a second language and is designed to reach some

of the hardest to reach populations. Funded by USAID, with collaboration of state governments and local organizations, the IRI programmes in Kannada are broadcast to nearly 165,000 schools (Project T4 Website and related articles). Video films in the local language are telecast by the state government via EDUSAT, covering about 885 schools. Teacher training in these schools has been undertaken with the support of the local state governments, and the schools have been provided with Teachers' Guides.

Intel Teach Programme: The Intel Teach Programme (February 2000) to train classroom teachers in over 35 cities nationwide to use technology to improve teaching and learning.

Shiksha India (December 2001), a non-profit organization set up by the Confederation of Indian Industry (CII), has created a teachers' portal using open source tools and technologies.

Effective Strategies for Teacher Educators for Integrating ICTS into Teaching-Learning Process

New technologies require new teacher roles, new pedagogies, and new approaches to teacher training. The successful integration of ICT into the classroom will depend on the ability of teachers to structure the learning environment in non-traditional ways, to merge new technology with new pedagogy, to develop socially active classrooms, encouraging cooperative interaction, collaborative learning, and group work. This requires a different set of classroom management skills to be developed. The key skills of the future will include the ability to develop innovative ways of using technology to enhance the learning environment, and to encourage technology literacy, knowledge deepening and knowledge creation. Therefore there is need of effective strategies for the integration of ICT in teaching learning process. Followings are the important strategies that can be adopted by teachers of different teacher training institutions.

Web Quests (Web based Lesson)

A Web Quest is an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Web. Web Quests are designed to use learners' time well, to focus on using information rather than looking for it, and to support learners' thinking at the levels of analysis, synthesis, and evaluation. The Web Quest has been effectively applied to all levels of education, from elementary to postgraduate study, and in many different subject Areas. The Web Quest provides teacher educator an option of reviewing and selecting web-based learning activities for the trainee teachers. The Web Quest model encourages teachers to create for their students new activities and adapt successful ones to take advantage of the Web's power.

Cyber Guides

Cyber Guides include standards-based, web-delivered units of instruction cantered on core works of literature. Cyber Guides provide a quick supplementary set of activities for trainee teachers as they explore specific pieces of literature. Each Cyber Guide

contains a student and teacher edition, targeted standards, a description of the task, a process by which the task may be completed, teacher-selected web sites, and an assessment rubric. The teacher's guide includes an overview of the activities, suggestions from the author, and a library of links. The student guides include activity directions written in a format appropriate for the age and reading ability of the students.

Multimedia Presentations

Multimedia combines media objects such as text, graphics, video, animation, and sound to represent and convey information. In this project-based method of teaching and learning, students acquire new knowledge and skills by designing, planning, and producing a multimedia product. Many teachers find that students are motivated to learn when they can use technology to present the results of a rich project or activity. The multimedia presentation contains content conveyed by the student's selection of media. The teachers in training can look at examples of projects and lessons, at Internet sites housing collections of student samples. Some examples of multimedia presentations include: creating a web page or site; developing a branching hypermedia stack; using a multimedia slide show application to create a computer presentation; shooting and editing video to create a computer-generated movie.

Telecomputing Projects

Telecomputing projects are Internet-enriched learning activities that often involve students in one location collaborating with students or adults in one or more other locations. They may share, among other things i.e. experiences, beliefs, data, information, problem-solving strategies, products they have developed or jointly developed. Telecomputing tools include email, electronic mailing lists, electronic bulletin boards, discussion groups, web browsers, real-time chatting, and audio-and video-conferencing. Online resources include websites, interactive environments, and remotely operated robotic devices. Judi Harris provides a variety of Telecomputing project web pages. (Harris, 2001).

Online Discussions

A common type of Telecomputing activity is online discussion. With the growth of infrastructure around the world comes the ability to access others through remote connections. Students and teacher candidates can connect to experts and peers through a variety of formats, such as chat rooms, electronic bulletin boards, and email. Communicating online offers participants freedom to send and receive information efficiently across diverse geographic locations. Communication can occur asynchronously allowing time for reflection, or to compensate for varying time zones. In real-time online communication, as in chat groups, the communication is synchronous and provides immediate feedback for reinforcement and understanding. Examples of online environments include email lists and virtual meeting places such as *Tapped In* (SCR International, 1995). Tools such as Blackboard (2002), and WebCT (2002) maybe used to create online environments.

Conclusion

As success of implementing new educational policies depends on the ability and competence of the teachers, they should be provided opportunities for their professional growth. Electronic media including films, television., Internet etc. are to be used to refresh the teachers. The Society for Information Technology and Teacher Education has identified basic principles for development of effective ICT teacher education. Therefore there is need to follow those principles in our teacher training institutions. To effectively integrate the information and communication technologies (ICTs) in Teacher Education Institutions, the essential conditions like Students and teachers must have sufficient access to digital technologies and the Internet in their classrooms, schools, and teacher education institutions, high quality, meaningful, and culturally responsive digital content must be available for teachers and learners. Teachers must have the knowledge and skills to use the new digital tools and resources to help all students achieve high academic standards. Web based lesson, Cyber Guides, Multimedia Presentation, Telecomputing projects, Online Discussions etc. are different strategies that can be used by the Teacher Educator in Teaching –Learning Process.

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The Overview of Finished Product Distribution System—FMCG Sectors

SHWETA RAI AND DAYASHANKAR SRIVASTAVA[1]

Abstract

This paper gives an overview of the distribution system—FMCG sectors, Especially on Beverages sectors. It covers distribution in the value chain, distribution strategies, distribution functions and the importance of having a good flow of information. All activity in the distribution center should focus on ensuring that the customer gets the perfect order-that is, the right product, at the right time, at the right place, with the right documentation and of course, it must be delivered in the most cost effective way. With a market that is more complex and industry that is more competitive, however distribution is not so simple. There are more customers to reach and more products to deliver. Customers are often grouped by similar characteristics such as order size and particular delivery requirement rather than by type of account. The result is more markets and more individualized marketing strategies. All of this growth and diversity has a manufactured and distributed and place more emphasis on customer services.

Introduction

In today's market, high production standards must be maintained. At the same time, equal attention must be given to the distribution plays a critical role, because it is how the products reach the customer and ultimately the consumer. Whether in a new market or a nature one distribution ensures that customers not only receive the highest quality product. That is, the right product, at the right time, at the right place and the right documentation. This module gives an overview of the distribution system. It covers:

- ❖ Distribution in the value chain,

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- ❖ Distribution strategies,
- ❖ Distribution functions, and
- ❖ The important of having a good flow of information

Focus on the Customer—Distribution was relatively simple. The product was loaded onto a route trunk and driven to the customer down the street or across town. With a market that is more complex and an industry that is more competitive, however distribution is not so simple. There are more customers to reach, and more products to deliver.

Overview of Distribution

We focus about the important of distribution as a competitive advantage. This competitive advantage can be achieved only through a careful balance of customer service and efficient distribution operations. The balance is especially critical in the distribution centre, because it is the focal point of all activity that begins when the product leaves the production line and ends at the customer. For the distribution center, the shift from push to pull means greater variety of products smaller inventory of each product, more frequent replenishment and increased fluctuation in volume and velocity brought on by seasonal changes, holidays, special events and promotions. The growing diversity in markets has brought about new marketing strategies, such as channel marketing. Channel marketing means aggressively seeking all the business in the area, ranging from the largest hypermarkets to the smallest kiosks. Customers are often grouped by similar characteristics, such as order size and particular delivery requirements, rather than by type of account. The result is more markets and more individualized marketing strategies. All of this growth and diversity has a direct effect on the way products are manufactured and distributed and placed more emphasis on customer service.

The Value Chain

With the focus on the customer, the traditional supply chain becomes a value chain. From a distribution perspective, the value chain includes—sales and marketing, production, distribution, and delivery to the customer. The value chain, therefore, begins with customer demand. Based on information from the customer, sales and marketing identifies the specific requirements and creates a sales forecast to meet those requirements. Production manufactures the products according to projections in the sales forecast. It purchases the raw materials, produces the beverages, packages them, and transports them to the distribution center. Distribution is responsible for the product from the time it leaves the palletizer until it arrives on the customer's shelf. The distribution center must maintain a balance of its inventory levels in order to satisfy customer demand while ensuring product freshness. The customer, of course, receives the product and in turn, creates new demand based on what the consumers are buying.

Customer Pull

The focus on the customer has a significant effect on the production and distribution processes. Especially in areas where the competition is great, these processes must shift from the traditional "push" approach to a more customer focused "pull" approach. In the push approach, production functions as the engine that pushes product through the distribution system. Decisions are based on the most efficient manufacturing considerations, such as the availability of raw materials and the economic advantages of long production runs.

The Pull Approach

In more complex markets where customer service is critical, however the pull approach, the manufacturing process is tailored to customer orders. Customer demand determines what product is manufactured and when it is distributed. The production center manufactures only what is needed to meet demand. This means smaller but more frequent production runs and more frequent changeovers. The distribution center must have greater flexibility to meet changing customer requirements. This means reduced inventory levels and more frequent turnover of products. The pull approach may also require greater efficiency in the way orders are filled and loaded onto trucks for delivery.

The Push Approach

As markets nature, both production and distribution must begin to shift from push to pull. If they continue with a push approach, production becomes unresponsive to the more competitive market. And distribution must either hold excessive amounts of safety stock or move product by discounting heavily. None of these alternatives are desirable.

Balance of Pull and Push

Ideally, production and distribution should use elements of both push and pull to maintain a balance between customer demand and product supply they identify the products the customer wants, and deliver them when they are required. At the same time, they make enough products to fulfill manufacturing requirements and have adequate inventory to last until the item is produced again.

Customer Service Planning

Within the value chain, the distribution system can become a competitive advantage by providing competitive advantage by providing great value at lower costs. To do this, however distribution must maintain a careful balance of customer service and operational efficiencies. Such a balance can be achieved by taking a systematic approach to customer service planning. This approach consists of four phases–

- ❖ Distribution channel design

- ❖ Distribution network design
- ❖ Sales and route planning, and
- ❖ Daily operational execution

Distribution Channel Design

In this, the manufacturing unit analyzes the delivery requirements of customers in all market channels. He then groups those customers according to similarities in their requirements. These characteristics develop into distribution strategies. For instance, one group of customers, such as hypermarkets and some supermarkets, may require early morning bulk deliveries to their loading docks. So these customers are grouped together. Another group may consist of other supermarkets and neighborhood retail stores that have no docks and require deliveries of only a few cases twice a week.

Distribution Network Design

When all customers are grouped according to their delivery requirements, the manufacturing unit then determines how he can get the maximum and still be responsive to customer demand. This is distribution network design. The manufacturing unit determines what distribution asset he needs. This includes the type and size of distribution centers needed to handle anticipated product, as well as the types and sizes of trunks needed to meet customer's delivery requirements. In distribution network design, the manufacturing unit also decides where to locate his distribution centers so he can be as responsive as possible to all customers. The manufacturing also looks for delivery methods that can lower costs and speed product from the warehouse to the customer. One such method is double delivery, which uses two trailers loaded for different routes. A derive hauls the trailers to a location where hails the trailers to a location where he is met by one or more drivers. Each driver takes a trailer and delivers to a separate route. Another method is cross dock delivery which uses a bulk delivery truck loaded with pallets prepared for several routes. The truck takes the load to a location where the pallets are transferred to route delivery vehicles. Both methods represent innovation ways to speed the distribution process and control costs for emerging channel markets.

Sales and Routing Planning

The manufacturing unit determines the most cost efficient way to take orders and distribute the product. For instance, he determines when to use conventional and pre sell routes, and how many salespeople and derivers will be needed. In the conventional route, selling and delivery occur at the same time. The route truck is loaded with a representative selection of products. The driver stops at each account, takes the customer order, and immediately fills the order from the inventory on the truck. In the pre cell method, the customer orders the product 24 to 48 hours in advance from a route or telephone salesperson. The order is sent to the distribution center where the route trunks are loaded with the requested products. The drivers stop only at accounts that have placed an order. In sales and route planning phase, the manufacturing unit also

selects the most effective routing methods and tools to manage customer information and to determine the most efficient routes for delivery trucks and salespeople.

Daily Operations Execution

The manufacturing unit deliver the perfect order every day. To do this, the manufacturing unit customer's delivery requirements. For instance, the manufacturing unit and the customer, together, determine how shelves will be restocked, how product will be rotated, and how promotions will be handled. They also determine how payments will be controlled. Also, in daily operational execution, the trucks and delivery methods to meet the demands of new delivery channels. Smaller trucks and more effective loading procedures may help speed delivery to congested markets. Bay racks and other innovations eliminate much of the need to break down a pallet to get to a product at a delivery stop. For example, a vehicle that can navigate through narrow, in town streets is only part of what is needed to serve crowded cities. The vehicle must also allow product to be unloaded quickly and the settlement process completed. Also, since cash transactions are often required, drivers may need to take special security precautions.

Through careful attention to these four phases, the manufacturing unit can find the right balance of customer service and operational efficiencies. When this balance is achieved, he has turned the distribution system into a competitive advantage for his organization.

Distribution Functions

The balance of customer service and operational efficiencies should be maintained throughout all of the distribution functions—

- Taking orders,
- Planning router and dispatching,
- Managing inventory and filling orders, and
- Delivery to the customer

The first function, order taking, is the means by which customers orders are collected. This information may be generated by direct contact with the route salesperson, by telephone sales, or by the delivery person. With the introduction of pre-sell routers and telephone sales centers, the order-taking function has to operate in a timely and accurate way as it collects the orders and communicates them to route planning and dispatching. The route planning and dispatching function then coordinates customer orders and routes in a way that ensures the most effective use of trucks. Routing decisions are based on travel distances, truck capacity, commissions and other factors. Route planning and dispatching generates the delivery documents that specify the route, the delivery sequence, the product and any special customer requirement. This function coordinates with the distribution center and the delivery trunks to ensure that orders are loaded efficiently. Once the distribution center receives

the customer's order and delivery documents, products are taken from inventory and loaded onto the appropriate trunk. These products may be full pallets or mixed pallets that consist of a variety of packages. Also, as the number of inventory items increases, so does the number of mixed pallets that are shipped from the distribution center. Because mixed pallets take more time to build, it is critical to have an efficient method of managing inventory and filling orders so the product can be loaded onto the trucks in a timely manner. The delivery function is the most visible to the customer. In many instances, it is the only direct contact that the customer has with the company or the bottler. For this reason, the driver must take seriously the responsibility of customer service. First of all, the driver needs to have a clean and neat appearance. He also needs to develop a relationship with the customer and listen to requests or suggestions. This information can be important and should be communicated back to the distribution center. In addition, the driver must be efficient. He must deliver the optimal number of cases in a day, stay on schedule, and ensure that the customer gets the product that was requested. When the driver returns to the distribution center to select the route, the information that accompanies the route settlement should feed back into the order taking function. Although all distribution functions play a part in creating the perfect order, the delivery person has the final responsibility for ensuring that the customer gets t product, at the right time, at the right place, and with the right documentation.

Effective Product and Information Flow

With the increased emphasis on a balance between customer service and operational efficiencies, it is essential that all components of the value chain work together. This can be done only with accurate and timely information. The annual sales forecast is one of the main drivers for all business decisions within the organization. And it is the document that ties all activity together. Although the Sales forecast is initiated by sales and marketing, it should be agreed to and supported by all departmental managers. The sales forecast, unlike the annual budget, is a continuously updated projection of the anticipated customer requirements. It is a "rolling" forecast that looks forward from the current month to several months in the future. This forecast informs all departments about promotions and other specials that will be offered. It also tells them how much volume of each product is expected to be sold. The forecast is the document upon which long range capacity plans are based. In these plans, all departments determine any capital expenditures that may be required to meet the anticipated customer demand. For production, this may mean equipment or even a new line. For distribution, it may mean buildings, vehicles, and other equipments. The long range capacity plan provides a framework for all short term planning within the production and discussions held during the production planning meetings. At these meetings, the department managers look at the sales forecast and current inventory levels to determine the production requirements. The result is a production plan that specifics the amount of production to be manufactured over a given period of time. The farther this plan can be projected, the better it is for both production and distribution. The production plan is sent to the distribution center to give notice of the products being manufactured, the volume, and the release dates. The distribution

center uses this information, along with the sales forecast, to determine its short term space allocation needs. The production plan is also used as a basis for the production schedule, which projects what is going to be manufactured on the line for a given period. For instance, the plant may be scheduled to produce 1,000 cases of sprite for Monday on line one. The production scheduled, along with the inbound transport schedule, tells the distribution center what product will actually be received into the warehouse. if space has been allocated effectively, few adjustment will be needed as the pallets arrive. Another set of information follows the product from the time it leaves the palletizer until arrives at the customer's shelf. When the product arrives at the distribution center, it is accompanied by shipping documents. A checker at the distribution center inspects the pallets, notes anything unusual, and enters the product into the inventory system. The pallets are then moved to their storage location. Picking tickets from dispatching move product from storage locations in the distribution center to the trunk. Once picking tickets are issued to indicate the load makeup and route information, the order picker fills the customer's orders. Orders may be for full or mixed pallets that will be transported on either bulk or route delivery trucks. Then the order picker or loader places the correct product onto the trucks. This means verifying that everything is loaded onto the trunk and generating the paperwork needed for drivers to transport the product from warehouse to customer. Efficient delivery of product to the customer depends upon effective information. Well designed forms can streamline the delivery process, making it easier for delivers to quickly get the product off the trunk and into the customer's store. An accurate and timely flow of information can keep the right amount of product flowing through the system in an efficient way. On the order hand, a breakdown or bottleneck in the flow of product

almost always indicates a breakdown in the flow of information. Information includes more than paperwork. It also includes more than paperwork. It also includes the communication that takes place between departments. Improving the quality and timeliness of information should be a major focused for the distribution system.

Performance Measures

In addition to using information effectively, every distribution system must monitor its performance. Without accurate measures, it is not possible to gauge the impact of any changes in the operation. Two critical areas that must be measured are asset management and customer service. Measures for asset management include inventory levels, number of days of inventory, and trunk utilization. Measures for customer service include stock outs, on time delivery, and overall customer satisfaction. Measures for other areas of the distribution system can include:

- Warehouse utilization,
- Distribution cost per case, and
- Materials handling equipment utilization.

Measuring the performance of the distribution system ensures that you will have a quantifiable indicator of how well the operation is functioning. With this information you can identify areas to target for improving productivity. When the distribution system functions at its optimum, it becomes a strong and critical link in the value chain. It ensures that our customers not only receive the quality products of the company-they also receive the perfect order.

Conclusion

When the distribution system functions at its optimum, it becomes a strong and critical link in the value chain. You ensures that your customer not only receive the quality products. They also receive the quantity of products focus on the time and distribution process of finished product. Distribution process plays a critical role in terms of customer satisfaction. Distribution process has always been major strategy for staying ahead of the competition. In this paper if you focus on distribution channel design, distribution network design, sales and route planning and daily operational execution. The balance of customer service and operational efficiencies should be maintained through taking orders, planning routes and dispatching managing inventory and filling order, and delivery to the customer.

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Relationship between Academic Self-Esteem and Educational Achievement of Visually Impaired Adolescents

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Abstract

Self-esteem is considered to play a significant role in psychological adjustment and scholastic success. Little information exists on how adolescents who were visually impaired regard themselves.

In the last 2 decades, there has been increasing recognition of the profound role that self-esteem plays on all aspects of children's development. It is generally agreed that self-esteem is the evaluative component of the self-concept. Self-esteem has been variously defined by researchers and clinicians as an "expression of approval or disapproval, involving the extent to which a person believes himself or herself competent, successful, significant and worthy".

Academic Self-Esteem

Academic self-esteem refers to an individual's understanding about his or her own academic abilities and the perception of others about this understanding. Whatever an individual thinks about himself if, it is matched with what other people thinks about him. Then, it is known as positive academic self-esteem. If this thinking does not matches between an individual and others then, it is known as negative academic self-esteem.

The above two variables are directly inter-related to each other. If one increases then, it leads to the increase in the other variable. It is a general belief that academic self-esteem contributes to the efforts of a child, which in turn promotes his/her achievement in different areas particularly in educational pursuit.

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The social attitude with regard to the education and rehabilitation of Visually Impaired people has undergone considerable changes particularly in the last two centuries. With separation, ostracization from the society in ancient times to protection with pity and compassion during the Judiac or early Christian periods, the emphasis shifted to the establishment of special schools for imparting training to the blind during the eighteenth and nineteenth centuries and now to Inclusive education.

During the 20th century those concerned with the education and rehabilitation of blind person focused their attention on educating the blind children along with the sighted persons in ordinary schools. During the 1950's the principle of normalization evolved with emphasis on equalizing of opportunities and options. This was followed by the concept of integration in the field of special education of blind as on viable option for equalizing opportunities, effective use of resources, reduction in isolation and stigma and providing a wider range of experiences.

This was based on the belief that ordinary schooling would enhance the social and emotional wellbeing of the blind, that it would bring them into educational and economic mainstream, be helpful in total citizenship and involvement in all activities, would sensitize them to their role in this endeavour, would provide favourable learning experiences and ultimately would result in the total integration and rehabilitation which is the ultimate goal of all educational efforts. It is also thought that it will provide them a continuity of services from early detection and early intervention through schooling, vocational education, independent living in the community and meets their specific needs. It would also ensure that blind person:

1. Experience a sense of participation and achievement with the group with whom they receive their education.
2. Achieve increasing independence within the context in which they receive their education.
3. Participate in decision making about choices of educational programmers and thereby learn skills of self-advocacy, and
4. Receive their education in context which reflects on ecological perspective, that is in context which involves family and community resources.

Thus it is evident from the examination of above observations that emphasis in integration is on all-round development of blind persons. This encompasses the promotion of positive academic self-esteem and self-concept.

Educational Achievements

Educational achievement refers to Educational or academic performance as a specified level of attainment or proficiency in academic work as evaluated by teachers by standardize tests or by combination of both.

Relationship between Educational Achievements and Self-Esteem

Educational Achievement and self-esteem seem to be highly interrelated and one

influences the other, nonetheless, the foundation for academic achievement seems to be positive self-esteem, which has to be cultivated early in life. Low self-esteem is often cited as the ultimate source of poor academic achievement and self-destructive behaviour (Haggerty *et al.* 1996). This, in one way or another affects the personal growth of the person as well as his/her role and status in the society at large. The type of self-esteem the child withholds is by and large dependent on his/her surrounding (Apter, 1997), Particularly, the type of early childhood upbringing, early school experiences and peer relationship play a vital role in molding the child's self-esteem (Bernard van Leer Foundation; Klein *et al.,* 1996). Indeed, the opinions of significant adults (parents, teachers etc.) have an impact on a blind child's level of self-esteem. For example, parents or teachers who view a child as competent or attractive communicate their opinion to the child, who eventually internalizes these opinions and begins to view himself/herself accordingly.

On the other hand, adults who view a child as unattractive or incompetent also communicate these opinions to the visually impaired child, who eventually internalizes them and forms unfavourable opinion of himself/herself as well as his surrounding. A child who develops positive self-esteem will become confident about his abilities and is likely to become an adult who respects others and will work well and help others with a strong sense of social interest. Those who consider themselves as effective are usually willing to attempt some solution to whatever problem they face, and they will not give up easily in their efforts to overcome some obstacles.

When sight is lost, the affected person feels particularly helpless and dependent until he can acquire a appropriate adaptive behaviours and coping skills. At the same time, the minimal expectations and negative attitudes experienced by the blind person contribute to lowered self-esteem. Thus, the dynamic forces that operate upon a newly blind person make his sense of worth and competence especially vulnerable.

The development of self-esteem among those born blind is also precarious. All growing children, especially through their teen years, wrestle with the fundamental questions: "Who am I?", "Am I lovable?", "What is the meaning of life?", "Where do I belong?", "Can I handle it?". The blind child who experiences devaluating and derogatory reactions or reflections within his social environment find it more difficult to obtain satisfactory answers to these basic issues of life. When any child is made to feel strange, different, unwanted, incapable or inadequate, his self-esteem is jeopardized.

When conveyed these directly or indirectly, affect his/her educational achievement. A blind person's self-esteem is also affected when he/she is conveyed that he/she is not self-sufficient and hence depends for various things on others. The dependency needs of those blind who does not get adequate educational provisions are more visible or more obvious than the dependency needs of the sighted, and as a result, most members of society tend to share the opinion that the visually impaired are more dependent and thus less worthy. The sighted find it easy to forget that interdependence is healthy and normal. There is abundant evidence to support the conviction that visually impaired children and adults can be capable, contributing members of their society. With the adequate support in terms of facilities, encouragement and ample opportunities, blind

child can develop into an independent, responsible individual. Blindness in and of itself does not impede mental growth is amply proven by the successes of many prominent blind persons throughout history.

It can therefore be argued that early positive familial and school experience of children with visual disabilities sets a stage for success in learning and life in general. As this is very true for children in general, it is particularly essential for children with visual disabilities for cognitive, sensory, communicative stimulation as well as social competences and skills which are the corner stones for subsequent learning.

The purpose of the present study was to investigate the relationship between the academic self esteem and educational achievement in the two educational setting where blind children in India are placed so as to find out the effectiveness of the inclusive setting in promoting the academic self-esteem.

Method of the Study

In the present study the descriptive research method was followed. Sixty visually impaired adolescents studying in special and integrated settings have constituted the sample of the present study. These subjects were divided in to two groups of thirty each enrolled in special school settings and integrated school settings. One to one matching is done on the basis of age, sex, educational achievement, socio-economic status and IQ. The Visually Impaired adolescents studying in integrated and special school setting was selected on the basis of purpose cum convenience sampling procedure.

Hypothesis of the Study

- ❖ Positive academic self-esteem of visually impaired adolescents helps them to attain higher level of educational achievement.
- ❖ There was no significant difference in the academic self-esteem of Visually Impaired adolescents studying in Integrated and special school settings.
- ❖ There was no significant difference in the educational achievement of visually impaired adolescents studying in the two settings.
- ❖ There was no significant difference in the relationship between academic self-esteem and educational achievement of the visually impaired adolescents studying in the two settings.
- ❖ There was no significant sex difference in the academic self-esteem and educational achievement of Visually Impaired adolescents studying in residential setting.
- ❖ There was no significant sex difference in the academic self-esteem and educational achievement of Visually Impaired adolescents studying in integrated setting.

Tools used in the Study

1. Personal Information Blank (Self developed) To obtain information on certain demographic variables was developed by the investigator.
2. 2. BASE-Behavioural Academic Self Esteem (A Rating Scale) By Stanley Coopersmith and Ragnar Gilberts-the investigator have reviewed various academic self-esteem scales and selected this one from them, which is most suitable for use with Visually Impaired adolescence as per the need of the study.

Result and Discussion

Since the purpose of the present study was to explore the relationship between academic self-esteem and educational achievement of the visually impaired adolescents studying in different educational settings, the product movement coefficient of correlation (r) was calculated between academic self-esteem and educational achievement. The following table depicts the r values:

Group	*Variable*	*R (Co-relation)*
Visually impaired girls in residential setting	Academic self-esteem and educational achievement	0.15
Visually impaired boys in residential setting	-do-	0.60
Visually impaired girls in integrated setting	-do-	0.29
Visually impaired boys in integrated setting	-do-	0.03
Visually impaired in residential setting	-do-	0.33
Visually impaired in integrated setting	-do-	0.14

It can be noticed from the above table that the two variables are positively co-related to each other. Though in some case the value is quite low. These value show that the two are directly positively related i.e. if the value of one variable is higher then, the value of the other would also be higher. Thus, it can be inferred that high academic self-esteem helps in increasing educational achievement or vice-versa.

Conclusions

1. It is difficult to arrive at a precise view on the status of any group of subjects with regard to social traits after studying a small sample.
2. The impact of the educational setting was not found on the academic self-esteem.
3. The hypothesis formulated to study the impact of educational setting on academic self-esteem could not be accepted as no significance in terms of statistical analysis was found.
4. Several measures outlined in this chapter can go a long way in improving the academic self-esteem of the visually impaired adolescents studying in different

educational settings need to be taken by the educational administrators as well as the teachers.

5. The two major recommendations are:

   Firstly such studies on a larger sample in different geographical areas need to be conducted to confirm this finding. Moreover, The provisions and facilities available to the visually impaired children should also be studied in relation to these variables.

6. Secondly the Factors that contribute to the development of positive academic self-esteem also need to be studied so as to ensure that visually impaired children in inclusive setting are provided with adequate care and attention in their educational development.

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Book Review

Book : Inter-Religious Communication: A Gandhian Perspective. By Margaret Chatterjee, Promilla & Co., Publishers in association with Bibliophile South Asia, New Delhi & Chicago, 2009.

Pages : 200

Price : Rs. 425.00

ISBN : 978-81-85002-93-4.

Reviewed by : Nihar Ranjan Mishra

The book under review is a compilation of essays written by Margaret Chatterjee published in different journals in the previous years in the different parts of the world.

Religion influences human beings in the most prolific manner in which the thought process and the cultural and societal happenings cultivates the human mind to bring together and act on themselves to re-energize for the fulfillment of the goal in the society. Margaret Chatterjee is a prolific writer on the Gandhian thought. In this work she attempted to synchronize the very basic element of religions as per se to Gandhiji, how religious insights is the biggest challenge in the perspective of communal factor taking into consideration and how Gandhiji attempted to make a balance among all the religions to make the communal hatred.

The book is divided into eight chapters in which she discusses about Gandhian approach to the inter religious communication in the context of Pre-independence India. In the 1st chapter she focused on the pre-suppositions of inter-religious communication through which philosophical insights of Gandhi by translating the religious diversity into the matters of communications to all the diverse sections of the society. Communications across frontiers has certain presuppositions which confronts with the consciousness and behaviour. Inter religious communication means communication between an individual of one faith and an individual of another faith. One man tries to understand the faith of another and it is with the presupposition of that understanding. All communications depend on a certain openness of relationship and this high degree in case of inter religious communication. The author found that

there should be men with an 'open' understanding of the religious faith of other men seems to be an indispensable condition of the possibility of the 'open society' of tomorrow.

In the 2nd chapter on Reflections on Religious pluralism in the Indian Context, the author clarifies regarding relativism, relativity, pluralism, and religious plurality with respect to Hinduism. Relativism is a position which has been held especially with reference either to what is right or to what is true, the former giving rise to ethical relativism and the latter to cognitive relativism. Relativity and plurality are contextual with respect to relativism.

Religious plurality is a collective sphere where collectivity coexists. The concept of God or almighty in different religion is the absolute from which every power comes into the world and so the reformers like Raja Rammohun Roy, Gandhi and Radhakrishnan accepted the pluralist environment.

In the 3rd chapter on Religious Pluralism and the House of Islam, the author raises questions about religious pluralism as Islam is about how the believers interprets about the supreme authority yet the path is different due to the diversity in the religious tradition and accommodation. Chapter 4 is on the partake of a question "Does the Analysis of Religious Language Rest on a Mistake?" in which author identifies the mistakes as identification of religious language and theological discourse, and the analysts were occupied with clarificatory. The author concerned with the language of Indian Religions in the form of prayer, praise, worship, religious celebration and religious instruction. It expresses intense experience, an interpretation and response to life produced by tradition and personal belief.

In the 5th chapter on "The concept of Spirituality" where the word 'spirituality' has been used differently by different religions. There is the confusion between the word spirituality and mysticism. The concept of spirituality tossed between reason, spirit, and self. There is a close connection between temporality and life in the spirit and the eventual outcome of the commitment to life in the spirit. The term 'spirituality' centers on inner experiences and on practices reckoned to foster it. The author concerns about two major relations-the relation of the spiritual to the natural world and the relation of the spiritual to the world of men. In the 6th chapter "The Smorgasbord Syndrome: The availability of Spiritualities Examined", the author examined the multiple spiritualities by using Swedish 'smorgasbord' as a metaphor for a kind of free wheeling life-style.

In the 7th chapter on "Do we need authority in religious Life", the author ask question in the form of the title of the chapter, whether we need authority or not in our religious life, if yes, to whom the authority may be divested? There is cross cultural identity in which, persons from different background needed to be some kind of authority in which religious life can be metamorphosed. An authority can be deferred to for a multitude of reasons like the possession of expertise, fear of punitive consequences if the authority is not deferred to, coercion, absence of an alternative, habit, being misled by another person. Religious authority as such may be conceded in terms of inevitability about the emergence of diverse loci of authority, an

immutability which undoubtedly connected with the ethos of feudal society. The author analyzed the work of David Hume, Kant, Jeremy Bentham to find out the utility of religious authority. The author critically analyses the context of religious authority as such development of system of education that promotes critical self assessment and constructive thinking which discourages authoritarian stances.

In the last chapter on "Rabbi Abraham Isaac Kook and Sri Aurobindo: Towards a Comparison", the author influenced by the work of Kook and Sri Aurobindo in terms of comparative studies in respect of religion although both are from different cultural background but both shared similar outlook towards religion, faith in science which can help in humanity. Both Kook and Sri Aurobindo had immense faith in the potential of man and confident in the future.

The present book manifest about the inter-religious communication in the perspective of Gandhiji, where she discussed about the religious tolerance, Gandhiji's attitude towards own religion and towards the other religion especially more concerned about Islam. Though Gandhiji relatively emphasized on the secularism and sense of devotion to the other religion per se but in the context of 21st century the thought of religious tolerance may not be possible due to the vast attitudinal changes in India towards religion as communal riots in Gujarat, demolition of babri masjid, Pakistan's attack to destabilize India's peace, etc. are some of the example which demarcates the change in attitude of the people of India. Still Margaret Chatterjee tried to convince the relevance of inter-religious communication can be taken place in order to stabilize the society and form the secular country practically if all the sections of the society by religion, caste, community, sex, geographical location, be together and form the cordial relation among themselves in order to emerge as the strong and vibrant India.

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About USRI

USRI, a local Non Government Organization (NGO) founded in 2008 in Uttar Pradesh, INDIA, is committed to recognizing and equalizing the rights for children with disabilities. The Society began by providing small-scale welfare help to disabled children and their families across the State and also adopted a Community-Based Rehabilitation (CBR) approach through which it partnered with the other Non-Governmental Organizations/local administration to provide different services for Children with disabilities. USRI exists to help children with disabilities and their families to access resources and opportunities to enable them achieve their full potential. The Society is currently implementing a State strategy which aims at reaching all the disabled children in Uttar Pradesh by raisin g public awareness about disability; building government capacity, empowering parents to offer care and protection to their children with disabilities and facilitating individual with disability to access services for rehabilitation; the Society also undertakes lobbying and Advocacy activities to ensure disability inclusive polices, programmes and legislation.

Our Vision: A society in which children with disabilities have equal rights and equitable opportunities to grow and develop.

Our Mission: USRI exists to help children with disabilities and their families to access resources and opportunities to enable them to achieve their full potential.

USRI's programme targets all disabled children irrespective of type of disability, gender, religion or cultural background. In doing this we work in partnership with government and other service providers, within the existing structures for sustainability purposes.

- ❖ Disability awareness
- ❖ Policy advocacy and lobbying
- ❖ Empowerment of parents of children with disabilities
- ❖ Creating brighter futures for young people with disabilities in Uttar Pradesh
- ❖ Vocational training and rehabilitation
- ❖ Local Government and other development partners
- ❖ Strategic key focus areas

USRI's programmes focus on the following areas:

- ❖ Improving knowledge, attitudes and practices on disability within the community including policy makers and service providers.
- ❖ Effectively collecting, managing and sharing information about disability.
- ❖ Strengthening partnership and networking with stakeholders at all levels.

- ❖ Integrating disability as a crosscutting issue in all policies, plans and programmes at all levels.
- ❖ Strengthening the capacity of government, children, families and other partners to meet the needs of PWDs.
- ❖ Strengthening USRI's capacity to manage the country programme.
- ❖ The main thrust of USRI's strategy, implemented with in all districts of Uttar Pradesh has therefore been to increase the integration of services to PWDs in mainstream planning, budgeting and development processes at all levels in Uttar Pradesh.
- ❖ In implementing this strategy USRI works with different stakeholders to promote access of opportunities, resources and services to enable PWDs live fuller lives.

Guiding Principles

Mainstreaming disability as a cross cutting issue through lobbying and advocacy will ensure that disability issues and concerns are integrated into development processes at all levels. This therefore ensures that disability ceases to be the domain of civil society organizations. This will go hand in hand with strengthening partnerships, learning, participation and a professional approach by USRI staff.

The strategic gaps that USRI is addressing are:

- ❖ The general lack of capacity, especially at district and lower levels, to provide for the needs of children with disabilities in a sustainable way.
- ❖ The knowledge gap about disability to address negative attitudes and practice which have remained unfavourable and are sometimes rooted in traditional beliefs and customs.
- ❖ Information gap in the area of disability due to poor data collection, management, and sharing methods one or poor implementation of policies and plans to facilitate prioritization and integration of disability in mainstream development processes.
- ❖ Poor inter-organizational relationships at the intervention level which affect coordination and cooperation amongst stakeholders.