

# MODEL FOR AN EFFECTIVE E-LEARNING FOR DISABLED STUDENTS

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## ABSTRACT

A growing range of students gives varied desires in learning environment. Although their opinions are valid measures, the most effective teaching methodology, of integration vs. segregation is being noted by several researchers. This technology will play a serious role within the learning method for that student. The paper presents the literature and projected model of distinct communities within the use of ICT and flexible mode of communication delivery for special school.

**Keywords:** ICT, rational communities, academic models, learning models, students with learning disabilities

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## INTRODUCTION

There is a growing perplexity concerning student membership for students with learning disabilities (LD). Although many authors claim that it's best to integrate their students with the thought category there's strong proof to support the existence of separate student. These schools exist with tiny funding support for the government and they try to provide for an individual variation during a vital manner. The paper can discuss with these students with special desires beneath the generic term learning disabilities.

In recent years technology has compete a major role for specific deprived teams, like the blind and those with movement disabilities, in providing a way to facilitate communication and education [1]. This paper can define an exploration project that's investigation gift polices and their application to the utilization of Information and communications technologies (ICT) to support the rational community of students with learning disabilities.

## REVIEW OF LITERATURE

The definition of Learning Disabilities remains to a small degree imprecise [2], and though LD analysis continues to grow and to own a major impact on education its classification remains problematic due to the vagaries and antagonisms encompassing the definition [3]. Nowadays, two definitions valid measure well supported: a legislative

definition from the US found within the people with Disabilities Education Act [4] and therefore the one projected by the National Joint Committee on Learning Disabilities [5], an association of representatives from organizations inquisitive about LD.

In defining these definitions denote that a disorder refers to a retardation, disorder, or delayed development in one or additional of the processes of speech, language, reading, writing, arithmetic or alternative student subjects ensuing from a psychological handicap caused by an attainable cerebral pathology or emotional or behavioral disturbances [6]. It's not the results of sub normality, sensory deprivation, or cultural and instructional factors [7]. Specific Learning Disabilities may be a chronic condition of likely medical specialty origin that by selecting interferes with the event, integration, or demonstration of verbal and/or nonverbal skills. Specific disorder exists as a definite handicapping condition and varies in its manifestations and degree of severity. Throughout life, the condition will have an effect on shallowness, education, vocation, socialization, and /or daily living activities [8].

Numerous 'integration' or 'remedial' programs have proven inefficient towards the 'total' learning of this cluster of students. The researchers together with [9] [10] support the read that students with learning disabilities need another approach to their learning. The literature shows that in some elite fields, for instance in math's and social study, expert training has been applied to the current cluster of individuals with very little success [11] [12] [13].

The role of ICT will be simply complete currently because the government has placed strong stress on its importance and availability. At a recent seminar Indian Government Minister: Kumari Selja reiterated a serious policy to support school in India in numerous ways that in order that students would enhance their learning and employability position prospects. The policy has been additionally extended to federal level, and tertiary establishments valid measure seeking ways that to include ICT to boost graduate outcomes for these students.

## **ACADEMIC/LEARNING MODELS**

Teaching will be thought of as an associate interaction between academic, students, experience, and information [14], and therefore the manner that these entities move will be seen in numerous teaching/learning models. In our proposed model the associated between academic, student, experience, knowledge and information, and in this manner the entities move will be seen in the teaching/learning models. Define three completely different stages within the development of current instructional thinking, particularly as connected with the use of technology in education. The primary model, LM1 is that of the verbal tradition that is defined by a verbal flow of information streaming from the academic on to the students.

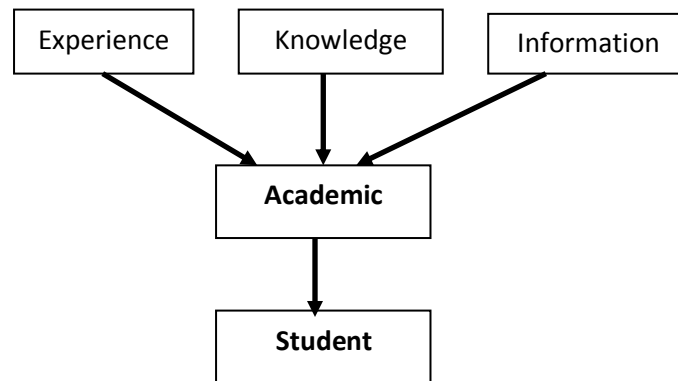


Figure 1: Model of the verbal tradition, LM1

In the second model, LM2 whattheyry decision the model of nowadays, communication is twomannersr and students additionally communicate amongst themselves, however the academic is absolutely still at thecentere. It's a model wherever each academic and student shares responsibility; however the academic remains the most supply of knowledge. The third model (the model of tomorrow); LM3 differs in putting a cognitive content in the center and giving each student and academics vital roles. Here, the academic acts as a catalyst or adviser for students on wherever information will be obtained. The academic additionally communicates their own information and knowledge and experience to the students, however this fills a smaller a part of the interactions than before. This could very be thought-about as associate e-learning model wherever students create in depth use of technologies like the World Wide Web to get information, experiences and knowledge. With this teaching/learning model the synchronous presence of each student and academic isn't any longer necessary. The training responsibilities of the students here valid measure for 'searching' rather than 'receiving' like earlier models

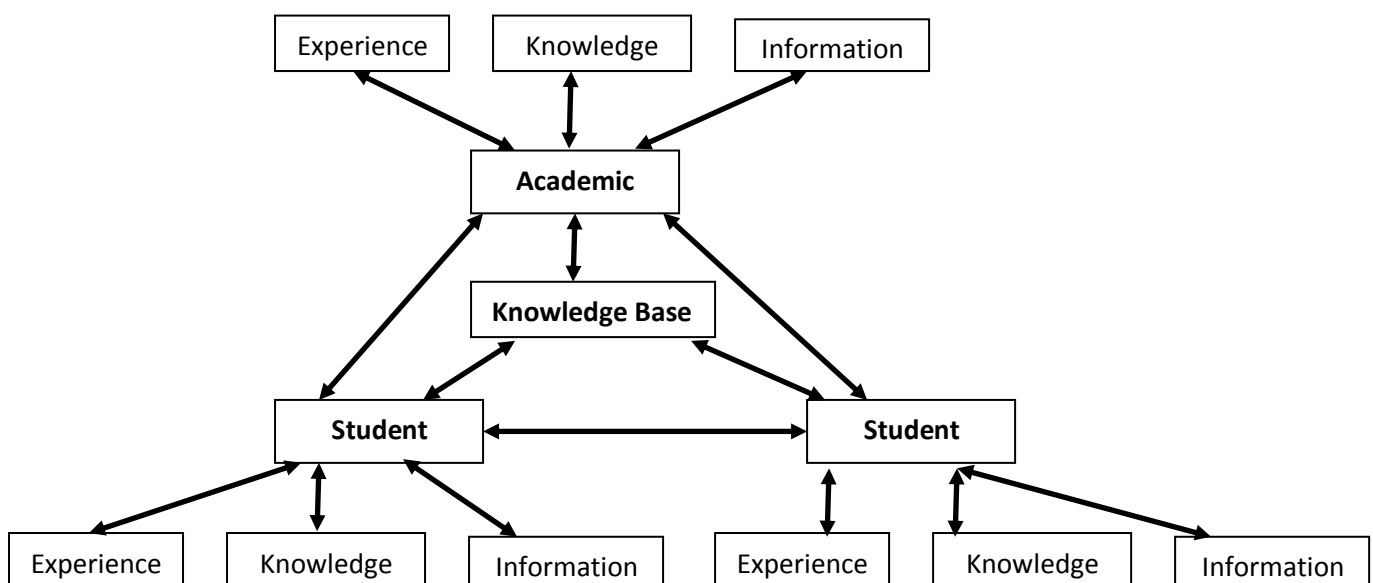


Figure 2: The e-learning model, LM3

## **Learning with ICT**

The literature contains samples of early models of learning with the help of ICT like Computer Assisted Instruction (CAI), Computer Based Mostly Learning (CBML), and Computer Based Mostly Coaching (CBMC) that were used with some success with LD students. [15] [1] [16] and [17] According to studies that were administrated with PC programs in skill and acquirement to develop skills with LD students. Computer Managed Instruction (CMI) was additionally accustomed support teaching normally. Additionally to those approaches, games were additionally accustomed develop and consolidate reading and orthography skills. The academic desires of LD students were thought-about and [15] had established two vital principles that were adopted within the style of computer code programs for LD students.

These were mentioned severally as:

1. The principle of singularity, and
2. The principle of instructional necessity.

The former used tasks or ways for motivation, while the latter centered on essential issues with LD students. Most effort was placed on the development and testing of the computer code to support additional adaptive skills. [18] Used computer-based teaching with unfit kids to develop their language skills, [19] used CAI to develop vocabulary skills with LD students and [20] used PC time-delay and CAI to show orthography to LD students. Clearly the first studies were restricted by each hardware and additionally computer code, and that they weren't terribly economical, even supposing they provided support for the teaching of those students.

## **INNOVATIVE LEARNING MODELS OR IDEAS**

Flexible learning may be a kind of learner-centered education designed to provide for individual desires in associate progressively diverse student remains. It provides learners with bigger flexibility in their preparation for tertiary study, instruction and learning access, learning pathways and points of the way in and a way out. Versatile learning conceptualization additionally increases learner alternative in content, sequence, method, time and place of learning. Versatile learning approaches are usually related to the exaggerated use of communication and data technologies however don't rely on technology and valid measure unlikely to think about on-line learning completely. Versatile learning approaches additionally encourage academics to vary their response fitly to handle a student's learning request or incontestable need.

Online learning (also called e-learning, web-based learning or distributed learning) involves the utilization of communications and data technology networks, typically the web, to support learning. On-line learning may embrace the supply of on-line learning resources, on-line support of student-student and student-academic communication, on-line student evaluation, on-line student learning support and on-line body services.

Online technology will create a key contribution to learner-centered versatile learning. To do so, on-line learning must specialize in meeting learner has to improve learning and not simply on victimization technology to transfer information. The most intention of learner-centered versatile learning is to extend learner alternative and accommodate learner diversity.

Online learning needs a simple-to-use, stable and reliable communication and data technology network. Servers and networks should be operated and maintained continuously and support should be accessible outside of Tamil Nadu workplace hours. Inside the container of ICT, these suggest that strong backup systems should be in place to confirm that ICT is absolutely operational continuous.

What valid measure the present processes employed by academics to implement learning programs for students with disabilities using computer-based learning technology? What valid measure the essential elements of such processes?

The findings of the project clearly support several researchers [21] that technology by itself doesn't make a distinction, however, the mixing of technology or ICT with effective teaching and learning ways does give students that enhance their learning during a considerable manner. They're valid measure many aspects that were known as key inhibitors in schools: workers coaching, laptop literate workers, workers unleash time, external disability support workers, people as care, rural and remote settings, and academic attitudes to technology and ICT.

The current analysis is examining these inhibitors or blockers closely and attempting to develop ways towards the application of a strong e-learning and technology based mostly model.

## **BUILDING A LEARNING SOCIETY**

It has been incontestable at the state level that a key aim was to promote associate education system during which ICT became part of a day class. This needed teaching as education system that adequately resourced students and academics' ICT desires so that they would maximize the advantages of ICT altogether subjects.

## **Rational Communities and the WEB**

The Collins English wordbook defines a community as "a cluster of individuals having cultural, religious, ethnic or other characteristics in common". A rational community may be a cluster of individuals World Health Organization share a typical interest or bond, however instead of meeting physically them "form communities that cross geographical, social, cultural and economic boundaries" [26] [22] and communicate via the web [22] [23] [27]. [24] Defines rational communities as "social aggregations that emerge from cyber web where enough people keep on those public discussions long enough, with spare human feeling, to form webs of private relationships in cyberspace" samples of rational communities, victimization laptop and electronic equipment, include teams of older people that share a typical life stage, music lovers with associate feeling for a specific genre, and teenagers battling through 'the trials and tribulations of adolescence'[22]. Web based rational

communities nowadays “allow a large vary from worldly people to argue, share data, make friends, and undertake economic exchanges, during a versatile and socially-compelling common on-line arena” [25]. In peculiarity, members of associate off-line rational community don't communicate directly with one another however valid measure dependent on ‘broadcast’ media like newspapers, TV and radio sustain their common bonds. [22] suggest that these on-line relationships valid measure equally as strong and permanent as their ‘real world’ counterparts. Then on top of definitions additionally applies to a community of special school within the outer metropolitan space of a serious city, namely, Melbourne. The school valid measure keen to line up relationships involving students through chiefly exchange programs, however there's growing interest to utilize ICT and the web. A serious project can involve the schools collaborating with specially designed programs which will have interaction the students with on-line learning activities.

It ought to be mentioned here that every student has been asked by the authorities to propose its own Educational Technology arrange. The projected project can incorporate such an idea throughout the analysis knowledge collection part. It's hoped that the information is helpful in providing information concerning the manner technology and ICT will assist students with LD.

## **A RATIONAL COMMUNITY OF SPECIAL SCHOOL**

The analysis involves a case study of two similar special schools in metropolitan space of Tamil Nadu. These schools take issue in size and therefore an amount of incapacity is variability with the smaller of the two schools. The school population within the initial student is roughly 50; this includes students from a lower primary to higher secondary age teams. The second student may be an abundant larger student of roughly 350 students and it covers a range of skills each primary and secondary. The varsity provided for students focus with delicate disabilities and it's a technology. This is often recognized together with the strength of the varsity information.

The aim of the research is to line up associate atmosphere victimization of the web and ICT to change the communication of students through videos, email, and alternative appropriate programs for students of coeval's ability. There has been a growing interest to line up a rational community between the schools and expand this further to incorporate a student from Tamil Nadu. It's apparent from visits to the school thus far that the school has formed a relationship with one another. The most distinction as so much as technology thinks about is that the second (larger one) student is incredibly well equipped with ICT and therefore the student contains well-established technology information. The second student has restricted ICT facilities.

The case study can consider meta-data to see whether or not the students valid measure able to move from the learning model LM1 to LM2 or maybe LM3, with the help of ICT. The precise analysis objectives can examine the how the utilization of ICT will enhance the subsequent main areas:

1. The learning outcomes that have already been determined by the school, victimization the academic Technology arrange. No amendment is planned to the varsity information.
2. The school is presently victimization Model LM1. The project aims to maneuver the students to LM2 and LM3.
3. There is ought to enhance the varsity infrastructure to create this attainable.
4. The measure (qualitative) is manufactured from however students move with one another and between schools.

## CONCLUSION

Technology will assist students with LD and analysis with the rational community. However the valid measure of relationships promoted through the utilization of ICT and Web-based technologies. The end result of the analysis will be an acceptable learning model that includes technology and human factors within the development of skills and information of students with LD.

## REFERENCES

- [1]. Poon, P. and Head, P. (1985) 'Computers Assisting People', 1st Pan Pacific Computer Conference, Melbourne, Australian Computer Society.
- [2]. Keogh, B. and Speece, D. (1996) 'Research on Classroom Ecologies: Implications for Inclusion of Children with Learning Disabilities', Lawrence Erlbaum Associates.
- [3]. Mather, N. and Roberts, R. (1994). "Learning disabilities: A field in danger of extinction?" Learning Disabilities Research and Practice 9: 48-59.
- [4]. IDEA (1997) 'Individuals with Disabilities Education Act', United States.
- [5]. NJCLD (1994) 'Learning disabilities: Issues on definition revised Collective perspectives on issues affecting learning disabilities', Austin.
- [6]. Daniel P. Hallahan (2001) "Learning Disabilities: Historical Perspectives" University of Virginia, & Cecil D. Mercer, University of Florida
- [7]. Kirk, S. A. (1962) 'Educating exceptional children', Boston, Houghton Mifflin.
- [8]. ACLD (1986) "Specific Learning Disabilities." Association for Children with Learning Disabilities (ACLD) Newsbrief 159: 15-16.
- [9]. Agran, M. (1977) "Teaching Self-Instructional Skills to Persons with Mental Retardation: A Descriptive and Experimental Analysis." Education and Training of the Mentally Retarded 21: 273-281.



- [10]. Bulgren, J. (1998) "Effectiveness of a concept teaching routine in enhancing the performance of LD students in secondary-level mainstream classes." *Learning Disability Quarterly* 11.
- [11]. Johnson, G., Gersten, R., and Carmine, D. (1998) "Effects of Instructional Design Variables on Vocabulary acquisition of LD students: A Study of computer-assisted Instruction." *Journal of Learning Disabilities* 20(4).
- [12]. Klinger, J. K. (1998) "Outcomes for Students with and Without Learning Disabilities in Inclusive Classrooms." *Learning Disabilities Research & Practice* 13(3): 153-161.
- [13]. Swanson, L. (1999) "Cognitive processing Deficits in poor readers with symptoms of reading disabilities: More alike than different." *Journal of Educational Psychology* 91(2.): 321-333.
- [14]. Schunck, L. G. and Nielsson, L. (2001) *Varying Learning Paradigms*, Danish Armed Forces, Distance Learning Centre (DEC).[www.fcfu.dk/artikel/paradigm.htm](http://www.fcfu.dk/artikel/paradigm.htm) June 2003. (Original source unknown)
- [15]. Torgesen, K. J. and Young, K. A. (1983) "Priorities for the Use of Microcomputers with Learning Disabled Children." *Journal of Learning Disabilities* 16(4).
- [16]. Schmidt, M., Weinstein, T., Niemic, R. and Walberg, H. J. (1986) "Computer-Assisted Instruction with Exceptional Children." *The Journal of Special Education* 19(4): 493-501.
- [17]. Wood, L. E. and Stewart, P. W. (1987) "Improvement of Practical Reasoning Skills with a Computer Game." *Journal of Computer -Based Instruction* 14(2): 49-53.
- [18]. Yamamoto, J. and Miya, T. (1999) "Acquisition and Transfer of Sentence Construction in Autistic Students: Analysis by Computer-Based Teaching." *Research in Developmental Disabilities* 20(5): 355-377.
- [19]. Johnson, G. M. (1998) 'Students at Risk: Towards a New Paradigm of Mild Educational Disabilities', Sage Publication.
- [20]. Stevens, K. B. and A., E. (1991) "Teaching Spelling with a Microcomputer time delay and computer -assisted instruction." *Journal of Applied Behavior Analysis*
- [21]. Holzberg, C. (1994) "Technology in special Education", *Technology in Learning*, April, p 21
- [22]. Matathia, I. S., M. (1998) 'NEXT Trends for the Future'. Australia, McMillan.
- [23]. Schneider, G. P., Perry, J.T. (2000) "Electronic Commerce" South Melbourne, Australia, Thomson Learning
- [24]. Rheingold, H., 1993, 'The Virtual Community: Homesteading on the Electronic Frontier', Harper-Collins, NY.



- [25]. Barnatt, C. (1998), "Virtual communities and financial services - on-line business potentials and strategic choice" International Journal of Bank Marketing 16(4)
- [26]. Jerzy K.Lepa , Arthur.Tatnall, (2002), "Older People Adopting the GreyPath Village Lyceum: an Analysis Informed by Innovation Diffusion", Victoria University, Melbourne.
- [27]. Jerzy K.Lepa , Arthur.Tatnall, (2002), Using Actor-Network Theory to Understanding Virtual Community Networks of Older People using the Internet, Victoria University, Melbourne.