

A Critical Analysis of the negative role of I.Q in achievement of holistic educational Goals with special reference to M.C group for Inclusive Education

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Abstract: *Holistic Education refers to the identity meaning and purpose in each person's life through connections to the community to the natural world and to humanitarian values.*

With this holistic view in recent times there has been a shift towards having children with disabilities attend the same schools as non-disabled children .This shift is a process of inclusive setting , which talks about restructuring the cultures, policies and practices in schools so that they respond to diversity of students in their locality. It not only emphasize on increasing participation of all students in schools including those with disabilities but on the quality of learning.

All children include a big group of disabled, which is around 2.19 crore persons with disabilities in India (census, 2001) .This disabled group again include a big group of mentally disabled. The differentiation within & with other groups of these children is based on I.Q (intelligence Quotient).

I.Q is essential for existence. If a person's I.Q is lower than an expected level for learning, definitely receptivity and learning will be affected negatively. (Ziegler, 1967a& 1967 b) states that two persons of different chronological age (CA) and different I.Q but matched on M.A should show similar learning rates, which is easier for inclusion of all groups as it will make homogeneous group for learning. Whereas, (Weir, 1967) challenging Ziegler, states that persons of the same M.A but differing in I.Q should show different rates of learning, even in short-term learning tasks.

Eliciting on the previous researches, discussion continues with the questions that in spite of Inclusive settings in one class can mentally challenged children with other groups of children, get quality education? Will goal of Inclusive Education with its holistic view be achievable? More over researcher has defined the quality education with some appropriate suggestions for inclusive settings according to the demand of inclusive Education.

Key words: *I.Q (Intelligence quotient)-I.Q is a number used to express the relative intelligence of a person .It is originally computed by taking the ratio of mental age to chronological (Physical age and multiplying by 100.*

M.A (Mental age)-Mental age is a score that is determined by comparing a child's score with the average score of his or her age-mates and with the score obtained by younger and older children in the norming group.

C.A (Chronological age)-chronological age refers to the Physical age, starts from the date of birth, and keeps increasing with time till death of a particular person, whose age is being referred.

Mentally challenged (M.C)- Mentally challenged or mental retardation is defined as significant limitations in adaptive functioning in at least two of the mentioned skilled areas.

I. Introduction

Holistic education is a Philosophy of education based on premise that each person finds identity, meaning and purpose in life through connections to the community to such as compassion and peace. (Miller, 1997).

The term holistic education is often used to refer to the more democratic and humanistic types of alternative education (Martin, 2003).Describes this further by stating, "At its most general level, what distinguishes holistic education from other forms of education are its goals, its attention to experiential learning and the significance that it places on relationship and primary human values within the learning environment.

With this holistic educational view in recent times there has been a shift towards having children with disabilities attend the same schools as non-disabled children(Manivannan,2015).Relating this the United Nations General Assembly on 13 Dec 2006,which was ratified on 23 Dec 2010 defines, reasonable accommodation to be necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular ease to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedom at Article -2 and demands this expect of life including Inclusive education(vijayvargiya,2013).

Inclusive education involves child -centered learning approaches. These approaches are based on a recognition that individual children learn and develop in different ways and at different rates and they seek to

create a learning environment, which responds to the needs of each child, including those with disabilities (Susie & Shreen, 2002).

The U.N. Convention on the rights of Persons with disabilities(2006),defines disability as including, those who have long terms Physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others(vijayvargiya,2013).Again WHO in its publication ICIDH,defines disability as a restriction or lack of ability(resulting from an impairment) to perform an activity in the manner or within the range considered normal for a human being generally taken to be at the level of the individual(WHO,1980).

Around 15% of the World's population, or estimated 1 billion people, live with disabilities. Eighty percent of their life span, living with disabilities (United Nations, 2015).According to the Census2001, there are 2.19 crore persons with disabilities in India who constitute 2.13 percent of the total population. Currently around 10% of the total world's population or roughly 650 million people live with a disability. As the population ages this figure is expected to increase. Eight percent of persons with disabilities live in developing countries, according to the U.N Development programme (UNDP).Statistics show a steady increase in these numbers. This disabled group includes persons with visual, hearing,speech,locomotor and mental disabilities .(vijayvargiya,2013).According to NSSO the prevalence rate of M.R children is 31.0 out of 1000 in India (NSSO,1991).There has been an increasing recognition of abilities of persons with disabilities and emphasis on mainstreaming them in society based on their capabilities(vijayvargiya,2013)

Though classification of disabilities tend to focus on negative features of disability because this leads people to think only in terms of the inadequacies or deficiencies rather than the positive characteristics or strengths of the process, still it is crucial for the purpose of conducting research and for development of particular treatments and therapies .Thus the classification of disabilities (IGNOU, 2010) are as follows-

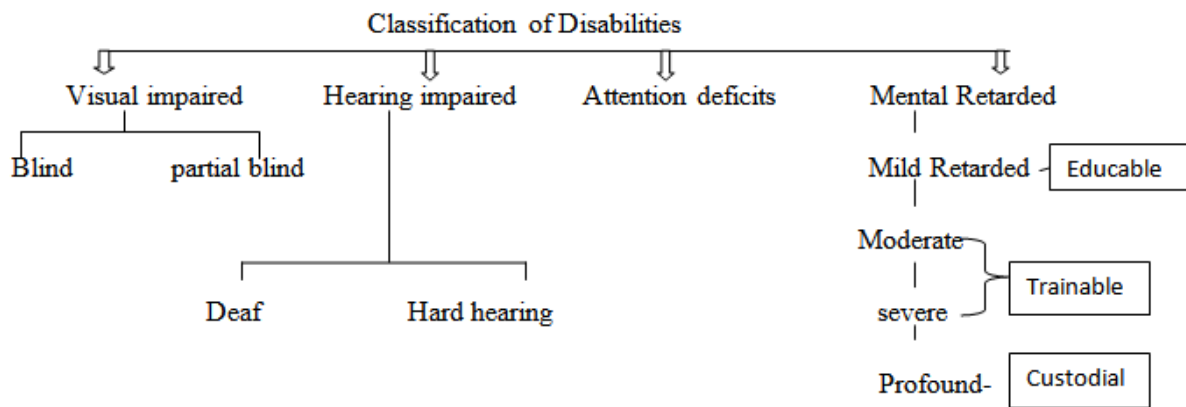


fig-1

In the above classification of disabled, only M.R group is such, whose classification is majorly based on intellectual functioning or I.Q.

M.R Group & Intellectual functioning (I.Q)

According to the Diagnostic and Statistical Manual Of Mental disorders(DSM)-IV-Mental Retardation is defined as significantly sub average general intellectual functioning that is accompanied by significant limitations in adaptive functioning in at least two of the following skill areas: Communication,self-care,home living ,social /interpersonal skills, use of community resources ,self-direction, functional academic skill,work,leisure,health,and safety with an onset before age 18 years.

Intelligence or intellectual functioning is a mental horsepower. If one have more horsepower he can do more faster, If one have less horsepower he can probably do as much ,but it will take more time and energy.

General intellectual functioning is defined by the Intelligent Quotient (I.Q) obtained by assessment with one (or) more of the standardized, individually administered intelligence tests.

I.Q is the intelligence Quotient the ratio of the mental age to the chronological age. The mental tests provide mental age, when we divide mental age by chronological age and multiply by 100(IGNOU, 2010).

For survival even, minimum I.Q is required. For further growth and development in child I.Q increases up to 16 to 18 of chronological age, which is essential for full growth and development of a person .But unfortunately this doesn't happen in all cases. In some cases, I.Q or M.A does not increase with a person's chronological age.Instead to this, M.A or I.Q stops growing before maturity where as chronological age keeps on growing of its own. It can be easily seen in a mentally challenged group in the range of N.P.C which is as follows-

Ranges of I.Q in N.P.C are as follows

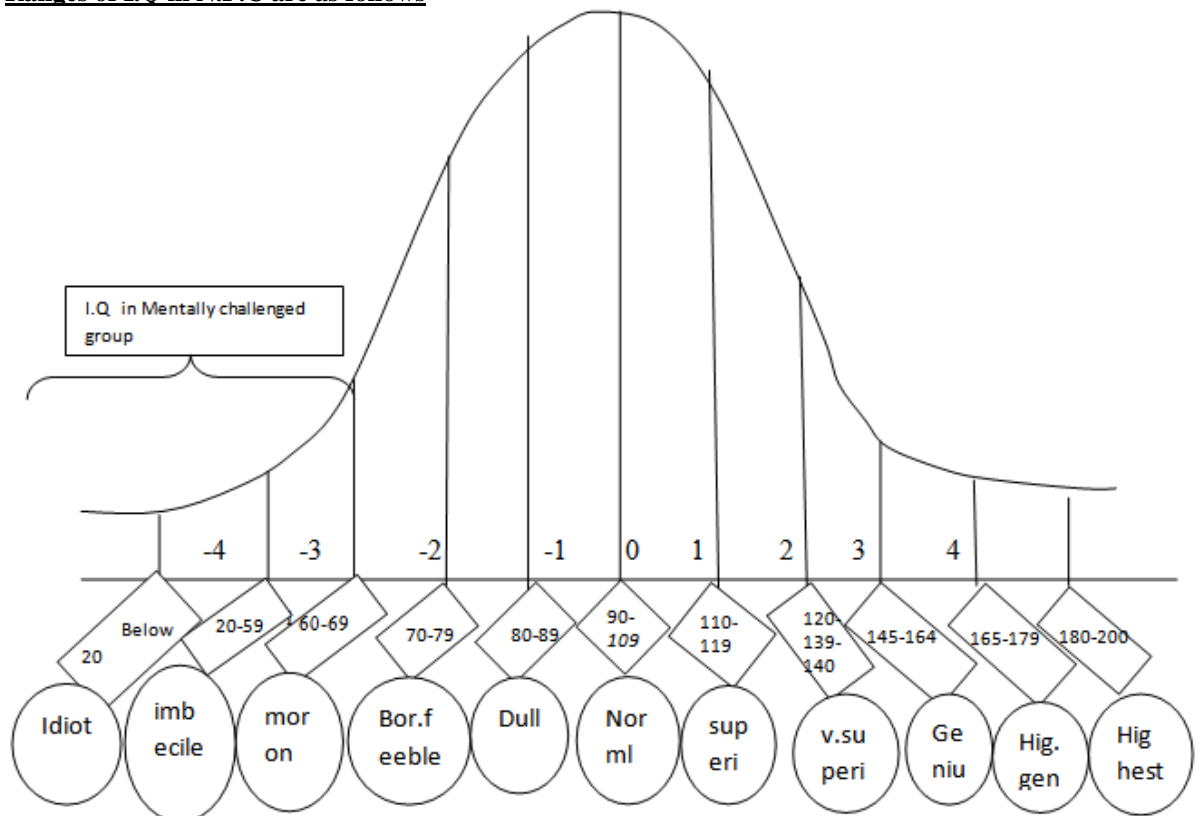


fig-2

II. Role I.Q &,M.A With C.A. In Performance Of Normal Children

I.Q is a brain functioning, which increases up to the certain age in human being or in the children. With this increase of brain functioning, ability of performance increases in a person or in a child. This ability of performance is called Mental Age, which means three year’s child should behave or perform as according to the expected behavior of three year (C.A) child on behavioral norm.

In normal children (whose I.Q is considered as normal) are expected to perform according to their mental age in correlation with chronological age, as follows-

Chronological Age	Learner’s characteristics
0 To 3 years	-----Have well established social and emotional Behavior patterns. ----- Develop vocabulary acquisition skills that influence Language learning for life. ----- -Can balance and support their body weight in a number Of different ways of moving such as crawling, standing and walking. -----Are primarily influenced by their family.
3 To 8 yr	-----Start of acquire skills of negotiation, self- control and co-operation. -----Need predictable and stable relationships for Effective learning. -----Develop understandings of things, such as size, Shape, numbers and letters. -----Learn through supportive and challenging play and experiences that include all their senses. -----Refine this sense of their body in space developing gross motor skills. -----Continue to the strongly influenced by the family With increasing influence from other significant adults

and peers.

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- 8-11 yr.** -----Are experimenting with identify, comparing themselves
To their peers and experiencing different kinds of friendships.
-----Have high levels of energy and enthusiasm and
enjoy movement and noise in cases and play spaces.
-----Consolidate numeracy and literacy skills and continue
to develop other skills such as problem solve and
decision making.
-----Are able to expand their thinking in reflective and spontaneous
Ways and demonstrate an emerging awareness of values.
-----Are keen to extent their capabilities and self-expression and begin
to the responsible for their own learning and behaviors.

- 11-14 years**-----Are experiencing adolescence and the accompanying
Emotional and Physical changes.
-----Are forming articulating and managing relationships
and developing stronger links with their peers, greater
Independence and a stronger Sense of belonging in
Wider adolescent cultures.
-----Reflect on who they are where they belong what value
and where they are going including how schooling fits into
their identity.
-----Are developing their own voice and sense of social justice often
Challenging the sources of significant adults including parents
Or caregivers and teachers.

14-17 years

- Have complex lives and are dealing with issues related to
Lifestyles that may not fit school or family expectations.
-----May be in part time employment or training hence moving in and out of
schooling to undertake traineeships apprenticeships or work placements. c
-----Are shaping and reshaping their lives but may or may not have
Developed but or may not have developed their own goals for
Fortune developed their own goals for fortune learning and
Employment pathways.
-----Live with their parents or caregivers independently and
Experience differing levels of influence from parents or caregivers.
-----As young people enter adulthood, parents of caregivers are likely
to reduce their level of involvement but will still be a source of
Advice and Encouragement.
-----The focus is on learning that takes the adult towards a profession
or trade.
-----The principles of adult learning apply. (Stages of schooling, 2015)

This gradual growth or improvement in work performance in children, takes place with the development of brain up to the maturity in normal children. But in M.R group of children, this development in child's brain takes place up to the 12 years or less than that of Mental age.

M.A AND I.Q- IN M.R GROUP-

In the definition of M.R by DSM-IV, the sub average intellectual functioning defines as an I.Q of 70 or below. Thus, the four degrees of severity are specified reflecting the level of intellectual impairment. Where ICD 10 gives importance to the cultural norms and individual abilities, which co-relate each level with mental age as well.

	Mental retardation	I.Q ranges	category	Mental age (years)
1.	Mild retardation	50—69or70	Educable	9 to under 12
2.	Moderate	35-49 or 50	Trainable	6 to <u>under 9</u>
3.	Severe	20or25-34	Trainable	3-under 6
4.	Profound	below 20	Custodial	less than 3

Table-1(source:IGNOU)

Note-There can be a **fifth category**, whose severity is unspecified. There can be a strong presumption of mental retardation but person's intelligence is untestable by standard tests.

Educational Classification is made based on the level of functioning of the mentally retarded persons, like those who can be educated in the basic functional literacy are called educable (EMR). Those who can be trained in certain semiskilled or unskilled jobs are called trainable (TMR) & those who need total care are called custodial. Educational expectations for this group are as follows-

Educable/Mild -

- (i) Second to fifth grade achievement in school academic areas.
- (ii) Social adjustment that will permit some degree of independence in the community.
- (iii) Occupational sufficiency that will permit partial or total self-support.

Trainable (Moderate/severe with some degree)-

- (i) Learning primarily in the areas of self-help skills, very limited achievement in areas considered academic.
- (ii) Social adjustment usually limited to home and closely surrounding area.
- (iii) Occupational performance primarily in sheltered workshop or an institutional setting.

Custodial-

Usually unable to achieve even sufficient skills to care for basic need. Require lifetime total care and supervision.

Method- This search of the literature was completed by using a combination of search methods, including electronic searches, manual searches of several text books, conference proceedings and consultation with experts in the field.

A combination of descriptors or root words of those descriptors (I.Q, M.A, C.A, and M.R) was used to maximize the articles located from the electronic search.

The text books were hand searched basically of I.G.N.O.U :National Center for disability studies & those texts which are the base books and most recommended by the teachers at M.ED level in Psychology and Education .

Finally to ensure no seminal work was missed about the studies we consulted with two experts one is an expert in Mental Retardation & Rehabilitation and second is from Education .

Stages of Formal Education & Mental performance(Results by theme) -

Whatever the chronological age of a person is, he /she always performs according to the capacity of his/her mental age. This is why the stages of education either formal or any other is decided according to the capacity of Mental performance in correlation with one's physical age .For example -Children with approximate age of 3 are expected to -Develop vocabulary acquisition skills that influence language learning for life etc.If a child is at 3 years is not expected to have a complex lives and are dealing with issue related to life styles. In this sequence United Nation's Educational ,Scientific and Cultural Organization (UNESCO) recognizes seven levels of education in its International Standard Classification of Education system (ISCEO), which can be majorly seen in Indian context as follows-

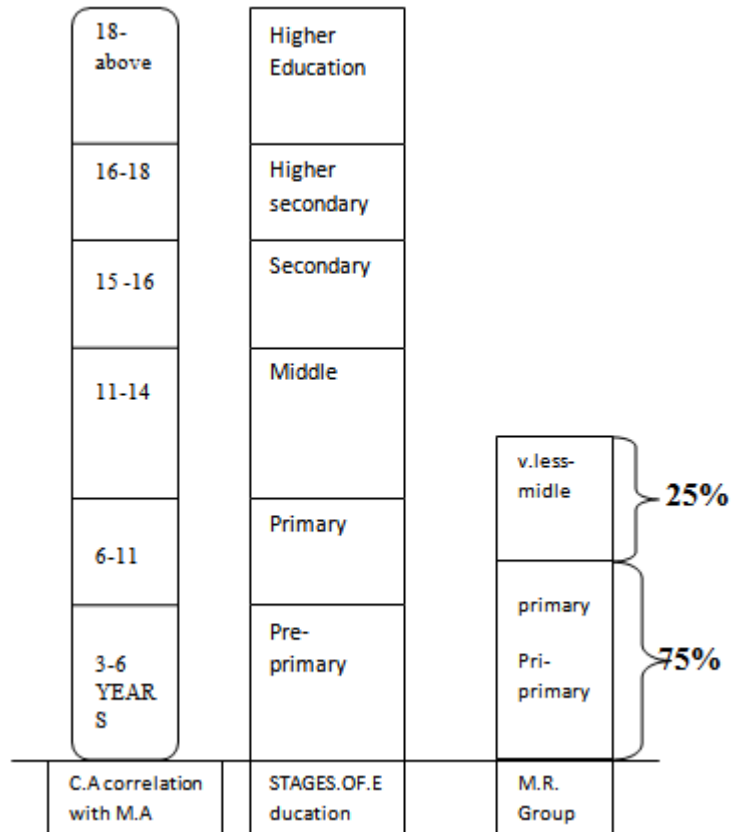


FIG-3:stages of education in correlation with C.A,MA&I.Q

Goals of Inclusive Education -

Inclusive education makes provision for learning to all children in the classroom. The general school adopts the need of every child in the classroom. The two major aims of Inclusive education related to the present context are-

- (i) To eliminate exclusion or enrollment of all groups in education.
- (ii) Achievement of high quality education for all learners.

For which transformation of schools and other centers is said of learning opportunities for all youth and adults.

Research Questions-

- (i) Can very low I.Q people like custodial be included for education in one class with others, as creating extremely heterogeneous group, in compare of brilliant children?
- (ii) Can the entire major group consisting all small groups in one class get Quality Education?

III. Discussion -

While answering the first question, in previous researches, researchers found that kids with mild to moderate intellectual disability can read at a first grade level or better .They say the results could have life changing implications for thousands of students with low I.Q.

According to Jill Allor,if these children and any other struggling readers can learn to read, that means they can go grocery shopping with a shopping list, read the labels on boxes and cans ,can read basic instructions. Furthermore, Allor, states that "Even minimal reading skills can lead to more independent life and improved job opportunities."

Above studies advocate for the enrollment of all disabled children even with low I.Q.

But still a matter of inclusion for low I.Q group (below 35) is such, which is researchable. For this group expecting self-care is even difficult, most of the time .Even, activity for daily life is also trained through conditioning .Moreover. Training to the trainable group of M.R for whom Receptivity is again a major problem because of low I.Q.

Discussing the second answer, which is a matter of quality education, is complex. Researches done by Ziegler and Weir, et.al may help in simplifying the above complication.Zigler (1967a) and restated (1967b) a central theme of his theoretical position regarding mental retardation that " it is the M.A (mental age level) and not the I.Q (the relationship of M.A to chorological age) that determines the exact nature, including the rate of learning any task (1967, P.579)."

Whereas Weir (1967), states persons of the same M.A but differing in I.Q should show different rates of learning, even in short term learning tasks. There is evidence that Weir's prediction is indeed borne out in the ease of laboratory learning tasks.

According to (White, 1965) states that mental abilities have a hierarchical structure, the development of which follows a chronological sequence; the milestones of this developmental sequence are marked by the increasing complexity of the cognitive structures (e.g., heuristics, strategies)Which the individual can bring to bear on solving problems. The ages at which individuals attain these stages of cognitive development are regarded as indexes of developmental rate. But two individuals who have arrived at this stage at either the same or at different rates of development, may still differ in the rates at which they can acquire new information. This is distinguished as learning rate.

Jenson (1965) matched 40 institutionalized mentally retarded young adults (Mean I.Q=58) with no known organic defects with 40 normal school children (Mean I.Q = 105) on M.A

(9 years).In both serial and paired associate rote learning ,the normal children had learning rates some 3 to 4 times faster on the average, than the adult retardates.

Thus in the light of empirical evidence comparing the learning rates of normal and retarded children and young adults matched for mental age. The results show that learning rate is a function of I.Q as well as of M.A. In general children of average I.Q learned serial and paired-associate lists significantly faster than retarded young adults matched for mental age.

With I.Qs between 50 and 60 but with approximately the same M.A as the children .An interaction between I.Q learning rates and socio-economic status is also noted. Some researches says that I.Q did not predict a child's ability to read, while students with higher I.Q scores generally improved more quickly, whereas there were cases, where children with lower I.Q scores outperformed their peers with higher scores. It demonstrates the potential of students with intellectual disability or low I.Q to achieve meaningful literacy goals (Allor, 2015).

Thus studies reveal that the variation in I.Q may not vary in learning with close M.A children, but it is related to the speed of learning, which can be determined as an important role in quality education and learning.

IV. Suggestions -

To attain the holistic educational goal in form of inclusive education, steps can be taken for experimentation & inclusion, which are as follows-

1. School timings can be divided in two parts-

- (a) 1st half for Inclusion.
- (b) 2nd half for Quality education.

In first half let the all children sit together in one class, where they all can be taught in general .Communication skills, moral education ,better living styles etc,can be the subjects for teaching them inclusively.

In Second half of the school timing, as the groups are since very heterogeneous (from below20 to 200 above =total range of I.Q) for whom receptivity may vary enormously .So classes can be taken separately in the same way what we do in case of optional papers. This can be done , till developing countries don't have proper technologies for improvement.

2. Quality Education can be redefined as follows-

“Quality education refers to a person’s natural development and learning through his own potential to increase the relationship in the form of intra-personal, inter-personal and public –relationship for social benefit in positive direction.”

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V. Conclusion-

As Robin Ann Martin (2003) describes this further by stating that what distinguishes holistic education from other forms of education are its goals, its attention to experimental learning. With this view hopefully as the time will pass by people with high I.Q and Creativity will explore new ideas of inclusive curriculum and methodologies for full inclusion in holistic education.

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