

Review

Introduction

For the last 35 years Jnana Prabodhini's Institute of Psychology (JPIP) is conducting research over nature of intelligence, giftedness, various types of measurements and education as well as training for Gifted and personnel supporting the gifted. What is giftedness? How are the gifted individuals different than the average individuals? Do they need special support? What kind of roles family, school and other agencies have in nurturing the gifted? What approaches could be used for implementing special nurturance- formal and informal education?

Intelligence and Giftedness

Initially, the terms 'gifted', 'talented', and 'genius' were used with similar meaning. Later researchers differentiated between these words. Galton used the word initially where he considered genius as endowed by heredity. Geniuses were considered as persons showing extraordinary potential. Gifted persons were considered to be intellectually superior persons, assessed on tests of general intelligence. The talented were considered to be the persons showing exceptional performance. As cited in a book by Freeman (1991) psychologists, like DeHaan, Havighurst, Lucking, etc. defined the term operationally as per the top few percents on standardized intelligence tests. The Marland Report (1971) defined gifted children as "those, identified by professionally qualified persons, who by virtue of outstanding abilities are capable of high performance". As per Jacob K. Javits Gifted and Talented Students Education Act, (1998) "The term gifted and talented student means children and youths who give evidence of higher performance capability in such areas as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who require services or activities not ordinarily provided by the schools in order to develop such capabilities fully." According to Renzulli & Reis (1989) gifted children show three basic clusters of characteristics- above-average general and/or specific abilities, high levels of task commitment, and high levels of creativity. Piirto (1999) described "gifted are those individuals who by way of learning characteristics such as superior memory, observational powers, curiosity, creativity and the ability to learn school-related subject matters rapidly and accurately with a minimum of drill and repetition, have a right to an education that is differentiated according to these characteristics".

National Institute of Public Co-operation and Child Development (NIPCCD), India (1984) arrived at a conclusive definition of giftedness as 'a potential ability or a group of abilities to excel in any field of human endeavour'.

In the first Volume of Dnyana Prabodhini (1972) Late Dr. V.V. Pendse, in his preface, mentioned that, "Education of the gifted is to be a movement. There is not one dimension of giftedness as such, but as many dimensions as there are facets to the human mental energy." Gifted children are spread across the country in varied areas of life. "The world must care for all its gifted children."

Some questions

Identification started at a very scientific level by administering two standardized intelligence tests, appropriate for that age level. Motivation and other correlates (by experience), were considered for selection. Educational guidance and counselling to children with behavioural problems began in JPIP. Children coming with problems sometimes were found to be 'gifted'. Can gifted children be problem children? Do they need counselling? How their high intelligence and creativity be recognized and positively channelized? How is their personality? What are the correlates of high abilities? Do they need any specific training for all-round-development? How value education be given? Researches on these questions have found answers to some questions. Rest of the questions are still to be studied.

Researches at JP

Concept of Giftedness

What is giftedness to Jnana Prabodhini? Changing times, altering minds, variations in surroundings, boom of technology, all are influential while deciding the concept of intelligence and hence the measurements. Giftedness is necessarily high cognitive potentials, such as grasping, comprehension, memory, divergent thinking, convergent thinking and evaluation based abilities, namely, decision making and problem solving. These potential along with some affective and behavioural traits useful for self and for societal betterment will lead to giftedness. As per Dr. Pendse's version only intelligence will not be 'giftedness', but it has to be accompanied with some 'humane' traits.

Theoretical Approaches

JPIP under initiative and able guidance of Dr. Usha Khire developed 120 standardized tests, based on Guilford's Structure of Intellect (SOI). These tests are available for research purpose. Giftedness is elaborated in some conceptual papers. For measurement of intelligence (17), Guilford's model is taken as a base. A composite score of 13 selected tests considering intra-individual variation is used to decide 'level of giftedness'. Glory of

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Intelligence’ or ‘Buddhivaibhav’ (its Marathi version) are the books specially written to describe this model. In a new model author suggested potential for advanced development as an indicator of ‘giftedness’(19). In the later studies about Indian scriptures and saint literature, a different new model suggests more holistic approach towards defining giftedness (34). Considering ‘*Buddhi*’ as a part of ‘*Antahkaran*’, combined with ‘*Vrutti*’, ‘*Guna*’, ‘*Viveka*’, ‘*Smarana*’ together giftedness is assumed to be an integrated entity measurable in terms of cognitive, emotional-social, ethical-moral and spiritual dimensions of giftedness. ‘Samartha Jeevanasathi Samartha Vichar’ a Marathi book covers the whole approach.

Identification

Mensa India is an activity under which intelligence testing is going on throughout the year for hundreds of children and adults. For Mensa Pune Chapter Dr. Narayan Desai is active in arranging for such tests. Urban and rural sectors are covered under this. Some of the papers are based on this data.

One such study (42) highlights some experiments in identification of rural gifted. Generally two types of intelligence tests, approved, for the purpose according to the international standards, are administered to decide intelligence level. Comparison on these two types of tests suggested that male students show better performance on power tests and the girls on speed tests. Reasons will have to be probed. An effort was done to see how far teachers could identify high potentials among students rightly (16). The researcher administered some standardized intelligence tests to these students to test the validity of identification. Correlations between scores on intelligence tests and teachers’ ratings corroborated closely. How they could identify rightly? Can parents also pin point giftedness correctly was studied by correlating students’ self-perception and parents’ ratings about them (33). There must be some specific concrete indicators which helped the teachers in this process. Such indicators of high potentials need to be found out.

Correlates of Giftedness

The first research report is an exploratory study, finding relation between intelligence, reasoning capacity and other correlates. Intelligence appeared to have significant but low correlations with other capacities such as reasoning, school marks, mechanical comprehension and likewise (1).

In drawing a profile of gifted, in case of school children, and while comparing school climate and noncognitive or cognitive potentials of gifted, some personality correlates were noted (10), (26), (40), (35), (36). These studies focus on different career choices and other

dimensions of personality and are coming to almost uniform findings. The gifted boys as well as girls appeared to be more sensitive as compared to average children. Boys and girls were found to have different sets of traits. In a particular study it was found that adult Mensans perceived themselves as high on 'value orientations' and 'integrity', among eight other dimensions (43). These traits will indicate potential for giftedness. They also appeared to change at different grade levels. Pursuing a goal with keen interest, sensitivity, enthusiasm, these were more or less constantly observed traits among gifted. At the same time they are found to get more influenced by peers and may show different trends. In a study on gifted girls, educated in enriched school climate, significant moderate correlation between home adjustment and school adjustment was found (44).

In case of adults, identified as gifted, in their school age, common personality traits were noted down (27), (46). Gifted adults exhibited commitment to goal, independent thinking, and sensitivity as common traits. They showed preferences for becoming members of social groups, with specific motives, such as conceptual or theoretical discussions, which suited to their cognitive appetite (13). The other inclination in case of JP gifted was preference for social groups, working on social cause. This again shows their inclination towards societal betterment. Exposure to social issues for making the children aware of national problems and making them sensitive to these issues since school age is practiced in Jnana Prabodhini Prashala for years together (12). This probably has worked out to find such results in case of adults.

Some biomarkers were observed in case of gifted indicating role of hemispheres and neocortex. The use of either of the hemispheres and the higher brain centres mainly decide facets of intelligence and level of intelligence, respectively. Relation between use of hemisphere amongs parents and their children was studied (7), (14). In earlier grades, such as grade VIII, children use right hemisphere more than the left one. At the grade X they start using more of the left hemispheres and use both in similar proportion. Gifted children overall use right hemisphere and their parents use left hemisphere to greater extent. It indicated need for training in whole brain thinking for both. Such findings lead to commencement of designing need based training programmes. The researcher used to conduct such trainings for both children and the adults.

Many a times the gifted are found to have low motivation. In spite of having good cognitive potentials they score low in school marks. The parents show utmost concern about this issue. A teacher conducted brief leadership programs for the underachieving gifted children and informed the parents about the experiment (15). After achievement of goals children felt positive and changed their attitude towards school performance. Similar findings were

reported in case of underachiever gifted, who were offered training and counselling (2). Four students referred by Principal went through the process. Case studies showed improvement in their motivation.

Reasoning ability was observed to have no connection with personality correlates in case of adults (41). Intelligence or its facets and personality traits seemed to be unrelated and separate dimensions of overall personality. In spite of having good potentials they show low performance; which is a concern of any organization, especially an industry. Here nurturing the gifted towards integrated personality development and change their low motivation is intended. In a study researcher studied around 300 adult males to find correlates of the social giftedness (29). Communication skills, especially the skills required to discuss and debate were found to be the predominant indicators of social giftedness. These types of skills can be trained and may not be present since birth. Right exposure, opportunities to explore and training may prove highly useful. If so, why not nurture at early age?

Nurturing Giftedness

The first social agency nurturing potential of the children is the parents and the family. Parents' role is very important and they need to be enlightened about raising the children. One such three-months' training programme for gifted parenting was implemented followed by regular brief training programmes for parents of gifted (not identified). Training was imparted to parents of the gifted. Success story of a six year old boy throws light on importance of this training (39). Diverse parenting styles and receptivity of gifted show that authoritarian style of parenting is more effective in case of gifted (45).

Efforts to develop originality amongst the children of high-school age group was implemented in a study. The change in originality of disadvantaged children was compared with that of advantaged session. They appeared to get benefitted by this training (28).

The second social agency raising gifted children is the school personnel, teachers and counsellors. Almost every year one or two programs for teachers are conducted for a group of teachers, from Pune or out of Pune. The main focus is 'gifted education'. This is the core theme of Jnana Prabodhini Prashala (JPP). Nurturing of gifted is done in schools as well as through some off school programmes and via out of school activities.

In the school : How to support gifted individuals with formal and informal education is an important issue to be taken care of. In West, Europe and America, have tried different approaches, such as segregation vs. inclusion, enrichment vs. acceleration. Every approach

has its assets and limitations. Every country, state and the local group should think of these points and design their own system to educate the gifted.

A 20 year practice in planned leadership development programme in a high-school for selected gifted boys and girls is discussed (5).

An integrated curriculum implemented in Jnana Prabodhini Prashala is described (3). These activities were successfully designed to develop Intellectual, Emotional, Expressional, Social, Physical, and Spiritual areas of personality. Activity wise distribution for grades V to X is given. Role of initiation ceremony in std. VIII (Vidya Vrata Sacrament) is in use for emotional and motivational development among adolescents (32).

How does this type of special educational program help the students?

Considering all children as having different gifts, multiple activities in various fields under one umbrella are elaborated in paper (18).

In a cross sectional study of gifted, studying in JP from grade V, VIII and X growth curves of thinking processes, based on Guilford's Structure of Intellect, were studied (4).

Conspicuous differences on cognitive and noncognitive factors of personality among gifted students of JP were evident. They were probably a result of educational and psychological enrichment in the school. It was more pronounced for cognitive traits (8).

Differences in cognitive and noncognitive factors of 'gifted studied in enriched school program' and 'gifted studied in normal schools' in the light of school and the related variables were discuss at length (30). The conclusions indicated that enriched school program makes a significant difference for gifted. The details discussed in the thesis are available in the form of a book 'Why Gifted Education?' In a specifically designed study relation between level of enrichment of school climate and personality of the gifted and average were analyzed (31). It was concluded that gifted are more benefitted than the average. On analysis of the data the researcher found that the enriched educational program in JPP has influenced the social ability and creative thinking to a considerable extent (37).

While studying the Differentiated Accelerated Curriculum (DAC) in Math and English the researcher found attitudes of the gifted students and teachers towards the newly applied system as favourable (38). 'The challenge inspires the gifted' seems to be a message. In such segregated and enriched programme what happens to their skills in decision making is studied in a paper (47). Significant growth was noted through the school years. Thus in cognitive and noncognitive traits as well as life skills conspicuous growth is found by all the researchers. This indicates that such type of schools are necessary for the progress

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of gifted children.

Off the school : Gifted, though are good in many aspects of abilities, some pertaining to practical needs may be lagging behind. In such cases some soft skills training can be imparted to enrich the gifts. A researcher showed that project method, which is more of a self-learning process, can be enhanced through well designed training (20) . Other teacher also trained high schoolers for improving efficiency in learning (21). The skills involved were Listening, Reading, Writing, Speaking, Memory, Decision Making, Developing a Scientific Outlook, Collection of Material for Specific Topic, and Performing Arts. In an experiment a teacher successfully induced improvement in cooperative working skills through group tasks (22). In spite of having independent thinking processes, working together can be made possible. Experimenters conducted leadership training with the help of planned group tasks, in stages (23). Activity list for various grades was prepared for the purpose. Five components were covered under the training. Very systematic concentrated efforts were implemented for JPP gifted. Gifted students have capacity to lead a group; but unless they are sensitized towards social issues their leadership may prove futile. Creating awareness about social issues resulted into a significant change in social attitudes of gifted students from grade VI VII. Boys and girls differed in the choice of social issues (24). Researchers compared average and gifted highschoolers on some standardized intelligence tests, including Guilford's model of intelligence (25). The results showed that there is steady increase in all cognitive abilities through grade V, VIII and X, with a sharp rise in Divergent thinking of JP gifted students. Entire experiment in training of behavioural intelligence to gifted in enriched educational program (6), indicated that the facets of intelligence, which assume Guilford's Structure of Intellect, can be enhanced through training.

In case of informal education all the programs are designed on the firm foundation of research and applied fields.

Out-of School Programs : In rural population selected Intelligence Tests were used and eligibility for Mensa (organization for top 2% intelligent individuals) was tested. For such identified highly intelligent children, some resource persons used to and are conducting workshops for their integrated personality development. Some such workshops for children between age group 10 to 14 for ten years had been conducted for years together (11). Thousands of children in the similar age group are being identified regularly from rural and tribal sections to conduct workshops for selected children. One such paper describes selection of IX to XI grade 226 male and female students for informal training through

activities (9). Out of those 6 boys and 3 girls having 99 PR continued their contribution to rural society afterwards.

Such special programs, considering their special needs will have to be designed. Especially their need for mentoring, rather than counselling, is to be taken into account by scholarly community. Residential camps of varying duration were implemented in Child and Youth Development Programs. Some such Camps in summer vacations could be the possible provisions.

‘Enhancing Intelligence through Games’ and ‘Hasat Khelat Buddhivikas’ (Marathi), Part 1 and 2 are the books available for conducting games in a standardized manner and with playful approach. Any parent, child-worker, teacher can play as a facilitator with the support of these books and some training.

Thus research and its application in the field of gifted and gifted education are paving a new path in the field of Psychology and Education along with other fields of Social Sciences.

Research put to use

Whatever is achieved till date is implied in various services to gifted, their parents and teachers. Knowing oneself through objective measures becomes possible through services like ‘Psycho profiling’, Mensa testing, Intelligence and aptitude testing, etc. Personality development camps in vacation for all children provide opportunity to find and enhance various intelligences and giftedness amongst them. Career guidance to gifted, after high school as well as at later point of time has been implemented with better insight. Diverse view discussed by thinkers gives direction for raising the gifted formally and informally. All these studies are contributing while designing in-school, off the school and out-of-school programmes for the gifted. Guidance and counseling the gifted has taken a firm scientific rooting through these researches. Guidance to the support system of gifted has also been possible. It is done through parents’ workshops and special training to teachers of gifted.

What is needed?

Definitions of ‘giftedness’ are continuously changing as per the aims and objectives of the studies, their implications, and the societal demands. It needs to be finalized in the view of Jnana Prabodhini and the purpose of developing able Leadership for the country. Accordingly the ‘education to gifted’ will have to be modified, transformed. JP intends the education for shaping the human potentials for betterment of society, for which more open education system may prove efficient. Changes in educational policies will have to be put forth to Government. Responsibility of family, teachers and government in raising the gifted will

have to be suggested through research back up. The studies involving these variables will have to be planned in future.

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