Recommendations to the Ministry of Education On Nurturing Giftedness in Children Guiding Framework

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Preface

On 29th July 2020, the Union Cabinet of the Government of India approved the National Education Policy 2020. The policy reflected the dreams and hopes of a new India. Among many other things, the policy clearly stated the need for the identification and nurturance of giftedness in India's children. India is a massive country of over 130 crore people. Consequently, it is home to enormous human talent. If this talent is properly identified and nurtured through school education, it will greatly contribute to India's vision and aspirations for the future. The last four paragraphs of *Section 4: Curriculum and Pedagogy in Schools* of the new policy constitute India's vision for supporting gifted students/students with special talents.

Secretary of School Education Ms. Anita Karwal and her colleagues in the ministry were quick to formulate their action plan of translating the policy on supporting gifted children into workable delivery models. They proposed a document entitled, "Nurturing Giftedness in Children: Guiding Framework", which Dr. Raghunath Mashelkar and Dr. Vijay Kelkar of Pune International Centre shared with Dr. Girish Bapat, Director of Jnana Prabodhini Pune. Jnana Prabodhini is one of the pioneering institutes of gifted education in India with a notable track record of 58 years of experience. The proposed document by the ministry has also mentioned Jnana Prabodhini's work in the field of education under section four entitled "Significant milestones in interventions for education and nurturance in of talented students India".

Under the guidance of Dr. Bapat, a team of Jnana Prabodhini worked together to compile their recommendations on the guiding framework document. This team consisted of trained professionals, educators, researchers, school counselors, psychologists, and various domain experts with formal training, knowledge, and experience in the field of gifted education and talent development. Shri. Aakash Chowkase is a doctoral researcher of gifted, creative, and talented studies at Purdue University, USA. Su. Isha Kanhere holds an M.A. in Psychology and a post-graduate diploma in gifted education.

Like Su. Isha Kanhere, most contributors to this document hold a post-graduate diploma in gifted education, which they pursued from Jnana Prabodhini's Institute of Psychology. The said post-graduate diploma is recognized by the University Grants Commission, New Delhi and affiliated with the Savitribai Phule Pune University. The team worked under the guidance of faculty members, Dr. Sujala Watve and Dr. Sucharita Gadre, who hold doctoral degrees in gifted education and psychometry, respectively, and are currently serving as the faculty members for the abovementioned post-graduate course.

This team worked together to generate recommendations that are research-supported and evidence-based. Moreover, the team gathered their teaching and counseling practices in gifted education to generate insights that are rooted in the Indian context. Therefore, we feel confident in the appropriateness and correctness of these recommendations.

We, at Jnana Prabodhini, believe that giftedness among diverse populations of students should be identified, nurtured, and motivated to bring a positive social change and to contribute to the greater good of society. We are excited to share this compilation of recommendations with you for further deliberations and action.

Thank you.

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How to Read this Document?

In this document, we have provided section-wise recommendations, as per the titles mentioned in the document "Dhruv Guidelines - draft - version 4 - 180920". Each section of this document should be read with the same numbered section from the original draft of the guidelines mentioned above. In some of the sub-sections of this document, we refer to the original paragraphs from the above-mentioned document, for example, "Para 7.2". For a better understanding of this document, we suggest reading the original draft prepared by the ministry and this document side by side. For further reading, we have provided relevant web resources in some subsections that offer more examples and external resources. We have provided elaborate recommendations in the main body of this document and have presented a compilation of our salient recommendations at the end of the document on page no. 24.

Section 1: Introduction

- In section 1 of the guiding framework, we suggest including a purpose statement and the intended audience of these guidelines.
- We suggest adding a brief overview of the 'Giftedness' phenomenon and its importance to human civilization, and in particular to India.
- We suggest acknowledging the prominent and legacy issues in gifted and talented education at the onset of this document. These issues include the challenges of disparities in gifted identification and programming for children from underprivileged backgrounds and those with twice-exceptionality, lack of culturally-relevant identification instruments and programming, and consequences of overly individualistic, needs-oriented approach to gifted education as seen in the Western countries. It is important to acknowledge a firm commitment to equitable identification and nurturing opportunities for gifted children from all backgrounds.

Section 2: Conceptual Framework

• In section 2 of the guiding framework, several models and conceptualizations of giftedness have been reviewed; however, it is unclear as to what framework or conceptualization has been adopted by the ministry for this policy document for identification and nurture of giftedness in India's school students.

We suggest adding details under the conceptual framework that will explain the <u>vision</u> for India's giftedness identification and nurturance program, <u>definitions or models</u> adopted for the Indian context, and various <u>types of giftedness the policy aims to address</u>. We suggest including the following points: <u>Commitment to equity</u> in gifted identification and programming (gender, social-subgroups, urban city/locale) as well as <u>holistic</u> <u>development</u> (not just cognitive/academic development) of identified children.

Section 3: The need for identification and nurturance

- We suggest broadening the identification policy to include 15-20% of the total population as suggested by Dr. Joseph Renzulli (<u>https://gifted.uconn.edu/schoolwide-enrichment-</u><u>model/semexec/</u>).
- We suggest separately explaining the need to identify special populations amongst gifted children including (but not limited to) twice-exceptional learners, prodigies, and lopsided gifted children.

<u>Section 4: Significant milestones in interventions for education and nurturance of talented</u> <u>students in India</u>

 In Para 4.2, we suggest correcting the organization name 'Jnana Prabodhini's Institute of Psychology' to 'Jnana Prabodhini', which is the parent organization overseeing various gifted education wings of Jnana Prabodhini including Jnana Prabodhini's Institute of Psychology (<u>www.jpip.org</u>) and Jnana PrabodhiniPrashala (<u>www.prashala.jnanaprabodhini.org</u>).

Section 5: Components of the Programme

- We suggest including support groups of parents, counselors, and mentors in the program. Also, we suggest that guidelines be defined for their role in the program.
- We also suggest that guidelines be defined for
 - a. Social-emotional characteristics and nurture of affective development of the students.
 - b. Recognition and guidance for the development of interest in students.

Section 6: Identification of talented/gifted students

Para 6.1 to 6.6:

- Developing awareness and readiness about competitive examinations: Many students may lack awareness of or/and preparedness to participate in competitive examinations such as Olympiads, especially students from rural and remote locations. As mentioned in this document, school authorities, teachers, counselors, parents, and other stakeholders may need to be involved in the identification process and made aware of the importance and benefits of the nurturing programs. We suggest including confidence-building and motivation development interventions for students so that they feel ready to attempt the competitive examinations. This may increase students' chances of getting identified/selected for the programs.
- Availability of training resources: We suggest ensuring/providing appropriate resource facilitation (e.g., books, expert guidance) for students that will familiarize them and prepare them for the identification process. Olympiads are an extension of existing school exam patterns. These competitive examinations ate not popular across the entire spectrum of Indian society. Hence, the organizing bodies should be encouraged to reach out to the maximum sections of society in different regions of the country. Besides, there should be flexibility in the medium of instruction in these examinations. Providing a choice to appear for examinations in students' preferred languages may open the doors of identification.
- **Broader identification strategy:** We suggest adopting Dr. Joseph Renzulli's approach to broaden the identification from 3-5% at the national level to 15-20% at the school level. As denoted in Figure 1, the school should aim to develop a broader talent pool at the school's level. Half of the students could be identified through traditional test score nominations based on local norms instead of national norms. The rest of the talent pool could be identified through non-traditional measures such as teacher nominations, case studies, parent nominations, and so on. The aim should be to include rather than exclude more students from the talent pool.

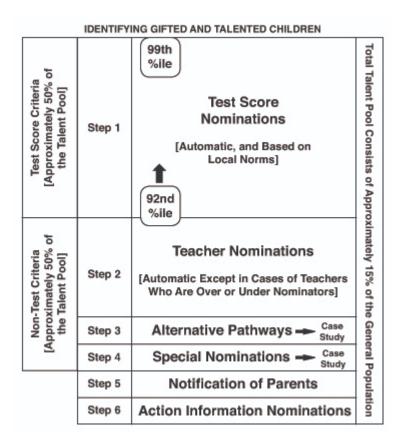


Figure 1. Identification Framework in the Schoolwide Enrichment Model by Dr. Renzulli https://gifted.uconn.edu/schoolwide-enrichment-model/identifygt/#

Para 6.7 to 6.9:

• Recurrent identification: While considering the identification of giftedness among children it is necessary to understand that, once identified as 'gifted', the students may not necessarily, always remain 'gifted'. Conversely, once a student is identified as 'not gifted', may not necessarily, always remain 'not gifted'. As Dr. Renzulli and many other talent development experts posit, gifted behaviors/talents can be developed through appropriate nurturing and wider opportunities. Therefore, we suggest a recurring identification process (at least, twice a year), so that students get more opportunities to be identified for the gifted programs. Along with this, we suggest providing multiple entries and multiple exit points for students in the nurturing program. Dr. Renzulli's Schoolwide Enrichment Program is a good resource for more information on the implementation of the ideas mentioned above.

- Increase opportunities: Students who appear for the competitive exams/Olympiads but do not get selected in the program in the initial attempts may be provided counseling and mentoring support to mitigate any adverse psychological effects on them. The school administrators, teachers, and counselors can help to build confidence and motivation in these students and their parents. A recurring identification process as mentioned above and providing multiple opportunities might help to tackle this issue of losing hope. With more and recurrent opportunities to be identified, there are higher chances of identifying more gifted students without psychological harm.
- Matrix approach to identification: We suggest using the Matrix System for identifying gifted students. The matrix system adapts a pluralistic view of giftedness assessment in which multiple assessment criteria are considered instead of using strictly one measure of identification. We have presented an example of a matrix identification system in Table 1. The matrix system may use formal tools, informal tools, teacher nomination, parent nomination, peer nomination, and self-nomination. We suggest using a "one of the many" approach instead of "all of the above" approach for identification. That is, students indicating high or above performance on at least one of these many criteria could be considered for the gifted program. This system may help to avoid the issues of using strictly one measure of identification such as standardized test scores, which are known to benefit students with high parental income, greater opportunities at home, or belonging to the dominant culture of the region. The matrix system may allow more flexibility in identifying culturally diverse students as well as students from low-resource regions. The stakeholders need to be made aware, trained, and encouraged to give honest nominations to make this system work. A transparent and team-based effort among various stakeholders can be helpful in the identification process.
- Early identification: Early identification is effective for talent development in certain domains such as mathematics and music. Therefore, we suggest training early childhood educators and primary school teachers in **talent spotting**. Efforts should be made to make them aware of the indicators of gifted behaviors through training and awareness programs, which may help in the identification process in the early years. However, we want to also emphasize that talents in certain domains such as humanities, social sciences, psychology, and languages bloom in middle and high school years. In these

domains, early identification would mean identifying students in middle and high school years, and not earlier. It also needs to be noted that early identification should not be done for the sake of labeling students as "gifted" but for the sake of early exposure.

School: XYZ					
AssessmentItems	Grades				
	Average 1	Above average 2	High 3	Very High 4	Excellent 5
Competitive examination				✓	
Intelligence test score			1		
Parent's Rating			✓		
Teacher'sRating		✓			

Name of the student: ΔBC Age: 12 Grade: 6 Gender: Female

Table 1. An Example of a Matrix System of Identification for Gifted Students

✓ This student indicated high or above performance on at least one assessment. Hence, this student can be included in the gifted program.

Stage-Specific identification guidelines: Further, we suggest adopting a stage-specific framework to define the identification process and its focus areas. This is particularly in line with the principles in developmental psychology, which is the backbone of the talent development framework. We believe that a lifespan approach to talent development is more scientific than offering intermittent programs. Therefore, we have mapped the educational framework adopted in NEP 2020 with the insights from developmental psychology (specifically, stage-specific developmental milestones). See Table 2 for stage-specific identification procedures.

Age group (years)	Educational level	Identification procedure	Stakeholders assessing the individual	
0 to 2	Preschool (Pre foundational level)	Milestone-Based, criteria based on physical development	Parents, primary caregivers	
3 to 8	Nursery to grade 2 (Foundational level)	Sensory-motor development	Parents, primary caregivers	
9 to 11	Grade 3 to Grade 5 (Preparatory level)	Activity-based observations, Skill assessment- reading, quantitative skills, Comprehensive continuous assessment	Parents, primary caregivers	
12 to 14	Grade 6 to Grade 8 (Middle level)	Standardized intelligence tests, Profiling based on Models of intelligence	Self, parents, psychologists, teachers, counselors, peers	
15 to 16	Grade 9 to Grade 10 (Secondary level)	Standardized intelligence tests, Profiling based on Models of intelligence, competency mapping	Self, psychologists, teachers, counselors, peers, significant others	
17 to 18	Grade 11 to Grade 12 (Secondary level)	Aptitude Tests, Standardized intelligence tests, Profiling based on Models of intelligence, competency mapping	Self, psychologists, teachers, counselors, peers, significant others	
above 18	Pre-university, College, Research (Post-secondary level)	Standardized intelligence tests, aptitude tests, personality tests, competitive tests, Achievement testsSelf, psychologis and counsel		

Table 2. Developmental Stage-Specific Milestones and Corresponding GiftedIdentification Framework in line with NEP 2020

• **Cumulative and continuous assessment:** We suggest maintaining portfolio files for each student from kindergarten onwards. Such a record of a student's trajectory can greatly help in the identification process. This approach may fit well with the matrix

identification system we suggested in the earlier subsection. A detailed evaluation/observation by teachers, which is well documented, can be carried forward to the next grades. This will help in identifying diverse talents and providing appropriate nurturance to many more students. An example can be found in Total Talent Portfolio by Dr. Renzulli: <u>https://gifted.uconn.edu/schoolwide-enrichment-model/ttp/</u>

- **Twice-Exceptional Students:** We suggest that the guiding framework of identifying and nurturing gifted students should also include twice-exceptional students. Twice-Exceptional students are those students who are gifted and have special needs or disabilities such as specific learning disabilities, speech or language problems, ADHD, etc.). Many twice-exceptional students skip through the identification process because their giftedness is masked by their disabilities. Conversely, many identified gifted students mask their disabilities using their giftedness, thereby needing unique nurturing opportunities conducive to their disabilities. Therefore, the identification system should be sensitive to the needs of twice-exceptional students. In a matrix system of identification, where informal tools may indicate that the student may be gifted, however, formal tools may indicate the opposite; the student may be formally assessed for special needs and accordingly placed in the nurturing program. We strongly suggest using strength-based approaches to identification and nurturing (i.e., the things the student can do) rather than using deficit-based approaches that excessively focus on things that the student cannot do. We emphasize that the indicators of strengths and challenges among twice-exceptional students may vary depending on the type of twiceexceptionality they possess. The identification system should be sensitive to these differences.
- Indicators of gifted behaviors: As suggested by Dr. Renuzulli in the Three Ring Conception of Giftedness, task commitment and creativity indicators should be considered in the identification system in addition to the above-average ability of the student. To this end, we suggest developing formal scales/checklists of task commitment and other non-cognitive indicators of gifted behaviors for the Indian student population. These indicators should be formulated with the help of experts from specific fields. The identification tools also need to be standardized on the Indian student population. An example of similar scales from Dr. Renzulli could be found here-

https://gifted.education.uconn.edu/wp-content/uploads/sites/612/2014/08/Scales-for-Rating-the-Behvioral-Characteristics-of-Superior-Students.pdf

In paragraph 6.8 of the guidelines document of the ministry, we suggest adding "dance" to the mentioned categories of artistic talent domains along with "art, music, drama".
Following exemplary indicators of identification for talent in dance (see Table 3) could be added to the table in paragraph 6.8. These indicators are similar to sports as both forms are concerned with bodily-kinesthetic intelligence.

Dance	Is innovative and creative in performing.			
	• Has the ability to maintain fine and gross motor balance.			
	• Is aware of the spatial environment.			
	• Uses gestures or facial expressions to communicate feelings.			
	• Has the ability to coordinate left-right sides of the body and overall body parts.			
	• Has the ability to recognize and feel the tempo and rhythm.			
	• Has the ability to receive, retain, and recall auditory and visual stimuli.			
	• Has the ability to keep up the physical and mental effort for a longer duration.			

Table 3. Exemplary Indicators of Talent in Dance

- Frontloading: Identification greatly depends on early and appropriate opportunities to develop skills and content knowledge that matters in the identification process. Therefore, students with more early opportunities have better chances of getting identified as gifted. Providing nurturing opportunities before identification, therefore, becomes critical to the identification process. This is known as <u>frontloading</u>. We suggest extensive frontloading be adopted for early grade students (PreK-5), especially for students from culturally diverse and low-resource populations. Frontloading can be achieved in various ways like project-based learning, focus on Higher Order Thinking Strategies, supporting student motivation, autonomy, supportive teaching, multiple learning choices, and so on.
- **High-Quality teaching-learning:** Activity-Based and innovative teaching-learning methods can catalyze the gifted identification process by developing an early interest and engagement of a student in a topic, subject, or domain.
- NGOs: We suggest NGOs working in education in rural and low-resource areas may be involved in the identification process. The NGOs may provide support to the respective

schools in conducting standardized assessments, preparing results, and providing counseling and nurturing support as needed.

Section 7: Nurturance of Talent

Para 7.1:

- The existing guideline framework document rightfully captures the following considerations: Need to intervene systematically; talent development in arts, science, mathematics, and sports; providing a conducive environment; rigorous and complex learning opportunities; and a strength-based approach to talent development. Further, we suggest the addition of the following considerations to Para 7.1:
 - a. Developing task commitment and high-quality motivation through motivation training, self-regulated learning training, attribution retraining, adequate choices in programming (electives), and opportunities to meet/work with relatable role models in the respective domains of talent
 - b. Recognizing the need to develop intellectual, creative, humanities-social sciences, and social-leadership talent domains in addition to arts, science, mathematics, and sports
 - c. Providing early exposure to various fields of interest and domains of ability
 - d. Continuous programming throughout PreK to 12 grades, and seeking opportunities to extend the programming in higher education.

Para 7.2 to 7.5:

At the school level

- **Differentiated teaching:** We suggest training teachers to use differentiated teachinglearning principles such as pre-assessment, grouping strategies, higher-order thinking development, a tiered approach to learning and assessment, and so on. For more on classroom differentiation, you may refer to the work of Dr. Carol Ann Tomlinsonhttp://www.teachersity.org/resources/instruction.pdf
- Acceleration: In addition to enrichment strategies for gifted/all students, we suggest making provisions for acceleration strategies. We suggest considering subject- or grade-acceleration options for students who demonstrate a notable gap in learning readiness and

the classroom challenge. The options include curriculum compacting, advanced class, partial or radical grade skipping. For more on acceleration strategies, you may refer to the work of the University of Iowa's Belin Blank Center

(https://belinblank.education.uiowa.edu/). Research from the Belin Blank Center suggests that acceleration does not academically or socio-emotionally harm gifted students, but it may rather help gifted students adjust the pace of their learning.

• Provision for parent awareness programs relating to early identification and nurturance at home.

At the levels of school complexes, districts, states, and beyond

- Gifted education coordinator: We strongly suggest creating positions for gifted education coordinators at the school/district level who will have the responsibility of identifying and ensuring programming for identified students. Gifted education coordinators could distribute/exchange resources across schools. These individuals may ensure accountability for gifted identification and programming at school/district. These could be integrated with the existing Cluster Resource Centers and Block Resource Centers.
- School psychologists: We suggest developing school psychologists/counselors who can support identified students for their social and emotional development, both preventive and curative help.
- **Career guidance:** We suggest incorporating career guidance opportunities, especially for students in rural and remote areas. This may help these students in navigating their options for higher education and career development.
- **Parents and former students:** We believe parents and former students could provide support and expertise in developing the next batches of students. We suggest involving parents with special expertise and former students as mentors/experts to enhance the school/district level support systems.
- NGOs: We suggest involving NGOs and social workers in nurturance programs to enhance the school/district level support systems, especially in the rural and remote areas.
- **Clubs/circle**s: We suggest that these clubs be designed according to the levels of challenge (e.g., exposure, competence, mastery, excellence).

- Use of technology: In places where the formation of clubs/circles is not possible due to lack of resources or distance to cluster/district centers, we suggest provisions for technology-based solutions such as prerecorded materials and access to Internet services.
- Work experience: We suggest including provisions for adult-supervised real-life work experience (apprenticeship/internship) in the field of students' interest and ability domain. We emphasize ensuring child safety. The real-life experience may prove immensely beneficial to students to develop mastery and excellence in their talent domains and also to make career choices.
- Enrichment resource centres: We suggest developing enrichment resource centres in various domains that students can avail at the school/district level at an individual pace and interest. This will ensure students' access to materials without the barriers of the class/grade level they are currently enrolled in. The existing BRC and CRC structure could be extended for this purpose.
- Manuals development: We suggest developing guidelines and manuals for school/district level enrichment programs. Subject matter experts may be invited to committees to develop these guidelines and manuals. These resources can then be distributed widely to promote a systematic yet flexible approach to programming at the school/district level.

At the national level: Pradhan Mantri Innovative Learning Programmed - DHRUV

- We suggest the following things to strengthen and extend the existing DHRUV program:
 - a. Alignment in identification: Ensuring a strong alignment between state-level and national-level identification and programming approaches
 - b. **Credits:** Students may be offered a chance to gather credits from the DHRUV program for use in higher education in Indian universities. This will ensure accelerated/early graduation of gifted individuals, which may support achieving excellence. Many gifted students waste several hours in higher education doing easy or basic work, which can be avoided through the credits gathered.
 - c. **Talent development approach:** It is necessary to recognize that different talent development trajectories start-peak-and-end at different stages of life. For example, talent development in mathematics or classical music begins as early as in primary school whereas talent development in humanities and social sciences

may begin in middle or high school years. Therefore, we suggest that the DHRUV program makes accommodations based on talent development trajectories rather than on grades (9 to 12). This may mean that the DHRUV program for mathematics may accommodate middle school students; however, a program for humanities and social sciences may only start in later years of high school. We have attached a chart of different talent development trajectories for further reference (Subotnik et al., 2019). For more on this, you may refer to the work of Dr. Rena Subotnik, Dr. Paul Olszewski-Kubilius, and Dr. Frank Worrell.

	Childhood	Adolescence		Adulthood			
		Early	Middle	Late	Early	Middle	Late
Music		1				<u> </u>	
Early specialization (e.g., boy soprano)	Start/Peak	End					
Early specialization (e.g., violin)	Start			Peak			End
Later specialization (e.g., flute)			Start		Peak		End
Later specialization (e.g., vocal arts)	-			Start	Реа	ık	End
Athletics							
Early specialization (e.g., gymnastics)	Start			Peak/End			
Later specialization (e.g., track and field)		Start			Peak/End		
Academic							
Early specialization (e.g., mathematics)	Start			Peak			End
Later specialization (e.g., psychology)				Start	Реа	ık	End

This figure is adopted from the paper by Subotnik et al. (2019).

More recommendations on section 7:

- **Helpline:** We suggest setting up a helpline for gifted children and their parents at the state and/or national level that may serve multiple purposes including access to information, guidance for counseling support, and general advice.
- The motivation for social change: We suggest the whole purpose behind the nurturance should be motivating gifts and talents among the children for social change. Therefore along with personal growth, a child should also be encouraged to use her/his gifts for solving social problems. As Jamasetji Tata rightly said- "What advances a nation or a community is not so much to prop up its weakest and most helpless members, but to lift the best and the most gifted, to make them of the greatest service to the country". For more information, you may refer to Jnana Prabodhini Publications. The following book by Dr. Girish Bapat is most relevant to this discussion:

https://www.jpprakashane.org/product/man-making/. The following link shows a collection of relevant books on this topic: <u>https://www.jpprakashane.org/product-category/english-books/</u>

Section 8: Teacher capacity building

We welcome the adoption of key elements of teacher capacity building in sections 4.43 to 4.46 in NEP 2020 (Support for Gifted Students/Students with Special Talents). Additional relevant recommendations are mentioned in Chapter 5 of NEP 2020 (Teachers) emphasizing the important role of the educator in shaping the lives of all the diverse students in the classroom. To strengthen the resolve mentioned in these sections, we suggest the following:

- The provision of pre-service teacher professional development
 - a. **Gifted education in B.Ed curriculum:** We suggest the inclusion of the following topics/units in the general B.Ed curriculum: Formal and non-formal tools of gifted identification (e.g., talent spotting, teacher nomination), curriculum and pedagogy for gifted education (e.g., differentiation, enrichment, acceleration), social and emotional development of gifted children, equity in gifted identification and nurturance, support systems for gifted children (e.g., teachers as mentors, counseling and guidance, parent communication) and practicum in gifted education

- b. **Teacher attitude development:** We believe these topics will develop positive attitudes in teachers towards gifted students, help teachers understand their learning needs (academic, social, and emotional), and create a stimulating and accepting learning environment to maximize their potential.
- c. **Practical experience:** We suggest the B.Ed program to include practical experience of gifted education as an integral part of the theory-driven course. This may be achieved using internships, classroom observations, visits to the institutes of eminence, developing and conducting lesson plans that focus on higher-order thinking skills, conduct micro-teaching classes, and work independently with gifted students. This may help to build competence and confidence in pre-service teachers and prepare them to integrate the learned theories into classrooms.

• The provision of in-service teacher professional development

- a. Long-term, continuous training: The inclusion of *long term*, continuous training sessions for teachers at state-level, district-level, and block-level organized by SCERTs, DIETs, and BRCs respectively
- b. Gifted education certification: Provision for online/offline, self-paced gifted education certification programs offered by IGNOU and private organizations such as TCSiON. Jnana Prabodhini has developed a 6-week online gifted education program for teachers. Programs like these could be developed and promoted.
- c. **National online portal:** Similar to the Diksha portal, we suggest the development of an online portal at the national level for gifted education resources including teaching aids, advanced courses, enrichment lesson plans, workshops, seminars, a list of enrichment classes, pull-out programs, various club ideas, and so on
- **Teacher evaluation:** We suggest teacher evaluation (both pre-and in-service) be broadened to include their competencies in teaching gifted children, beliefs about and attitudes towards gifted children, and self-efficacy beliefs about teaching gifted children.

Section 9: ICT based supplementary resources for gifted children

We suggest the following points regarding ICT for the initial implementation of this gifted education policy in schools.

- Appropriate use of technology may greatly enhance gifted education efforts. For example, incorporating computer/mobile-based apps that stimulate creative/critical thinking can help (e.g., Minecraft, Geogebra, Twitter). These resources should be included in the curriculum.
- While we await deeper penetration of Internet-connected smartphones and other technology, especially in rural and remote schools, we suggest:
 - a. Educating teachers in using technology so that they feel competent as the technology becomes available
 - Developing training programs and training material for the use of ICT in gifted education. This could include a list of recommended apps and technological solutions easily available for minimal cost and wider use
 - c. Continuously assessing and updating training programs in ICT for gifted education to match the speed with which the technology changes outside of education
 - d. Phased development of resources, both concerning infrastructure, training, and personnel
 - e. Developing collaboration between school systems and universities/ libraries/ museums/ laboratories/ industries for the promotion of research-based use of technology as well as virtual learning programs by experts outside of school systems. These collaborations could also be used for online resource sharing such as library access.
 - f. Creating 'Pool of Mentors' in different domains of talents who can virtually engage with students using ICT based solutions.
 - g. Setting up an online resource center/portal for all children including gifted students where they can access high-end resources at individual pace and interest.

Section 10: Fast track admission

We welcome the policy's approach to promoting fast track admissions. This is useful for gifted children in securing admissions to premier institutions. For example, students qualifying for the Kishore VaigyanikProtsahan Yojana (KVPY) examination are

automatically eligible to be enrolled at IISERs. To further promote this policy, we suggest the following"

- Awareness: Promoting awareness about fast track admissions policy in high schools, especially in rural and remote areas
- **Training:** Supporting gifted students in rural and remote areas with appropriate training to appear for the competitive examinations mentioned in the policy
- Admission criteria: We suggest that this policy open admission doors on "one of the many" selection criteria instead of aggregating multiple admission criteria such as mixing XIIth standard performance with a student's success in national/international level examination. Failing to do so (requiring multiple criteria) may completely defeat the purpose of the fast track admissions policy. Particularly, a student's performance in board examinations should not be made mandatory for fast track admissions requirements.
- **Credits:** Students may be offered a chance to gather credits from the DHRUV program for use in higher education/fast track admission. This will ensure accelerated/early graduation of gifted individuals, which may support achieving excellence. Many gifted students waste several hours in higher education doing easy or basic work, which can be avoided through the credits gathered.
- **STEM and non-STEM:** Fast track admission policy may not be limited to STEM fields. It may include music, arts, and non-STEM fields as well.

Section 11: Implementing the programme at the national level: Prime Minister Innovative Learning Programme – DHRUV

Para 11.3:

• **Broadening talent domains:** The guideline framework document already mentioned that 'to begin with' two areas of science and arts were covered in the first edition of DHRUV. As a next step, social sciences, humanities, and languages should also be looked at as key areas of talent development.

Para 11.4:

• **21st-century skills:** Along with the areas of science and arts, developing a wide spectrum of 21st-century skills including cognitive (i.e., creative thinking, critical thinking, problem-solving, decision making) as well as non-cognitive (i.e., self-awareness,

resilience, empathy, perseverance, communication skills, leadership skills, concern for society) aspects could be focused in DHRUV program.

• Short, continuous programs: In addition to 14 days of the yearly program, we suggest making provisions for short yet continuous nurturing programs. These short programs could be conducted in person at the nodal level or virtually. This is to highlight the fact that talent development is a continuous and progressing process, requiring continuous effort and guidance.

Para 11.5:

• **Involve gifted education experts:** In addition to involving experts from various fields, we suggest involving gifted education experts in the national steering committee. This will complement domain-specific inputs from field experts with insights from educational psychology, sociology, and curriculum and pedagogy of gifted education. Also, psychologists and counselors would add value to the committee with their professional knowledge.

Para 11.7:

- Non-Academic domains of talent: This paragraph mainly focuses on academic giftedness. We suggest broadening the scope of gifted identification and nurturance to intellectual, creative, artistic, social-leadership, and psychomotor (sports) giftedness.
- For specific suggestions on gifted identification, refer to our suggestions in section 6 in the document.
- Access to information: Children from diverse populations lack access to information regarding various examinations mentioned in this section. Therefore, we strongly suggest setting up an equitable mechanism to spread awareness before considering these exams as the identification criteria.
- Accommodate more students: It is said that 400-500 students will be selected nationally in the current program, which represents less than 0.01% of gifted students studying in higher secondary (Total number of students in classes 9th to 12th is approximately 4 to 5 crore/year. As per NEP, 15% of students are considered as gifted, which is approximately 60 lakhs.). Therefore, the current program leaves out over 99.99% of gifted students. We strongly suggest increasing the program's capacity to accommodate a larger number of students.

- **Collaboration with gifted education institutions:** We suggest collaborating with institutions working in the field of gifted education along with the mentioned institutions having national caliber and material resources for the nurturance of the gifted and talented.
- **STEM and Non-STEM institutions:** We suggest adding institutions from the fields of humanities, languages, and social sciences to the list of institutions working in the fields of science, maths, arts, and sports.
- **Involvement from JNV and other schools:** In addition to Jawahar NavodayaVidyalayas as mentioned in the current document, we suggest including local and district level government and private schools that are doing some experiments in education, having enthusiastic and expert personnel as participants.
- **In-School talent development during the academic year:** In addition to the programs conducted during school holidays, specialized inputs could be given through the on-going school curricula. Here, the selected participant students could be catered to in their schools using a variety of strategies like accelerated and differentiated instructions, introducing levels of learning, etc.

Para 11.8:

- **Guidance:** Additional incentives may include guidance and mentoring from academic and career counselors.
- Training the mentors: The designated mentors could be trained in the domains of psycho-social and emotional development of gifted individuals. They could be equipped with the strategies and resources to give a variety of experiences and exposures to their mentees.
- Flexibility in work experience: Some fluid structures like supervised on-field work experiences for participants and the freedom to jump from one domain to another to get exposures would be necessary. This will also ensure the development of confidence and self-esteem in the student participants.
- Service learning: We suggest the program may include opportunities to contribute to the community through things like carrying out multidisciplinary and interdisciplinary projects related to the community's problems. This will

contribute to developing a sense of purpose, worth, and the ability to make a positive social change.

Para 11.10:

- **Broadening selection criteria:** Going beyond the mentioned criteria, identification of gifted students with exceptional leadership qualities, interpersonal intelligence, creative problem-solving abilities, linguistic expressions could be taken into consideration.
- **Curriculum and pedagogy:** Affective skills such as self and social awareness, emotional regulation, sensitivity, and responsiveness could also be included in the curriculum along with 21st-century skills as mentioned in the document.
- Role of mentors and mentorship methodology: We suggest making the mentoring process more fluid and not rigidly sticking to the stages mentioned in the section. We would like to highlight that mentoring is a highly person-specific process that may vary from one child to another.
- Feedback system in the mentoring program: We suggest adding a feedback mechanism to the mentoring process for the effectiveness of mentoring.
- **Parents and teachers:** The role of parents and teachers as mentors, facilitators, and motivators could be highlighted with awareness-building initiatives for them.
- **Governance:** We suggest conducting awareness and training programs for all the governing authorities of the DHRUV program to ensure alignment among the program's aims, methods, and outcomes.

Compilation of salient recommendations

- 1. Commitment to equity in identification and nurturance
- 2. Awareness of and training opportunities for competitive exams
- 3. Emphasize selection instead of elimination
- 4. Use of broader identification criteria
- 5. Recurrent opportunities for identification
- 6. Matrix method of identification to broaden identification
- 7. Nurturance beyond the academic and cognitive domain, emphasize the socio-emotional development
- 8. Early opportunities and continuous K-12 programming
- 9. Domain-specific talent development trajectories
- 10. Pre-service and in-service teacher professional development in gifted education topics
- 11. Creating posts for gifted education coordinators for better execution
- 12. Hand-holding for teachers
- 13. Identifying, nurturing, and motivating giftedness for a positive social change and contribution to the greater good of humanity.

Contributors

The following members of Jnana Prabodhini, Pune, MH have contributed to this document. They all have completed P.G.Diploma in Education of the gifted: Methods and strategies, run by Jnana Prabodhini Institute of Psychology, Pune, granted support by University Grants Commission for 5 years. <u>https://jpip.org/academics-vertical/</u>

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