Modification, Adaptation and Alteration in Curriculum for PWDs:
A Strategic Way to Ensure Full Inclusion

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Abstract

86th amendment of our constitution has made education a Fundamental Right. This has made our system obligatory to provide free and compulsory education to all up to elementary level. PWDs are no exception and they do have equal rights to get educated in order to be a productive member of the society. However, we cannot and shouldn't close our eyes of the fact that PWDs are subjected to many constraints including unfriendly curriculum. A suitable and disabled-friendly curriculum along with its appropriate transaction is badly needed. Curriculum can easily be made disabled friendly with the help of Modification, Adaptation and Alteration and its transaction with the help of ICT and other technological advancements. In entire process the overall development of PWDs must be prioritized and efforts should be on producing skilled person. These exercises compensate the negative impact of disability on the learner. This lead to new educational possibilities hence, higher education becomes a reality for many students with disabilities and for others it helps to gain the minimum required learning for independent living. The mentioned exercises are meant to an 'Inclusive' and 'Least Restrictive Environment' for students with disabilities. This paper focuses on the above aspects in order to achieve the goal of 'Education for All' in an inclusive and enabling setting.

Keywords: Modification; Adaptation; Alteration; Least Restrictive Environment; Inclusion

Introduction

As we are aware that education is a fundamental right in India and it is obligatory on the part of State to ensure access of education to each and every citizen of India. There should not be any disabling condition between a learner and education system. However, our education system is basically structured and built upon the need, necessity, requirement and ablement of non-disabled students. When it comes to providing education to students with special needs, we look here and there to find out the excuse as we are not fully ready and committed for educating our special children.

Gone are the days when we could find escape from our responsibilities. Our recent policies and school of thoughts have made us to extend our arms in educating each and every child without any discrimination. In our country curriculum is designed, structured and transacted keeping in the mind the general population in which role of various sensory channels are inevitable and highly depended upon. In such condition any sort of blockage in sensory channels would lead to impaired learning. Such condition tends to lead to a disabling condition for children with special needs (CWSN). We are very much aware of the fact that in disability there is impairment of one or more sensory channels which interferes in the learning process and hence, quality learning is hampered.

Each and every student is unique and has different strengths and weaknesses. This phenomenon is equally applicable in the case of learner with disability. In fact such learners need more meticulously planned curriculum by way of modification, adaptation and alteration, better use of transactional method and medium and properly structured evaluation process to judge the potential/learning of the learner. Here, emphasis should be on the abilities and not on the disabilities. There is lack of focus on skill development in our general curriculum. It is not a good sign for our education system. Especially for special needs children, a well modified, adapted and altered curriculum is a must which will enhance their pace of learning, make them skilled and productive member of society and of course will shape them in groomed person-best out of waste.

Need to guarantee full inclusion of PWDs

Educating CWSN is a responsibility of all. It is not just a responsibility of teacher, parents or any single individual. A systematic and pragmatic approach is needed in reaching to the goal of 'Education of All'- as mandated by our Constitution and in various Legislations and Schemes including Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), Right to Education Act-2009, erstwhile Persons With Disabilities (Equal opportunities, Protection of Rights & Full Participation) Act - 1995 and now its replacement Legislation Rights of Persons with Disability Act - 2016. Regular Education Initiative (REI) is a philosophy suggesting that educating students with disabilities is a shared responsibility of general as well as special education [1]. The basis of educating children with disabilities in regular classroom comes from the concept of 'Inclusive Education' and 'Least Restrictive Environment (LRE)', a provision of Federal Acts of USA which govern special needs education in that country.

In our country we also have, of course late, started recognizing the need of education of CWSN without any hiccups and proposed a number of measures for providing education to CWSN without putting them to any further harassment. In a classroom, a teacher is thinking for the betterment and best of learning to all of his/her students without any discrimination. A blend of group teaching and individual teaching may be tried for betterment of CWSN. One the one hand, group teaching shall keep the pace of learning of whole class intact, on the other hand the pace of learning of CWSN is taken care of through individualized teaching with the help of

Individualized Education Plan (IEP). Teacher must use each and every possible ways to meet the needs of CWSN and for effective and smooth transfer of learning.

Strategies to make the curriculum inclusive and enabling

According to Betts (2017) the 'INCLUDE' strategy can be the most effective contrivance for the teachers to transfer the knowledge or learning among CWSN in smooth and systematic manner for it gives teachers a systematic process for making adaptations for students based on their individual needs and the classroom demands on or expectations of the teacher. The 'INCLUDE' strategy for accumulating CWSN in general education has the following steps [2]:

Step I - Identify the classroom environmental, curricular and instructional demands.

Step II - Note down student's learning strengths and needs.

Step III - Check the potential areas of student success.

Step IV - Look for potential problem areas.

Step V - Use information gathered to brainstorm instructional adaptations.

Step VI - Decide which adaptation is important.

Step VII - Evaluate student's progress.

Based on the above, a well-structured, inclusive, enabling and better programmed curriculum may be developed for CWSN as per the need and requirement of the learners. Each child with special needs has equal right to self-motivation, self-respect and self-identity. While transacting curriculum a teacher must respect these. While developing/restructuring curriculum, use of technological advancement can be of great use. This will help in smooth and effective curricular transaction.

Some of the points that may be kept in mind while modifying, adapting and altering a curriculum are summed up as follow-

- More emphasis on continuous and comprehensive evaluation (CCE).
- More and judicious use of technological advancement.
- Best and pragmatic use of latest knowledge and information.
- Waiving off those portions which have less or no practical importance in day to day life.
- While applying modification, adaptation and alteration, in no way basic ethos of curriculum be stolen.
- Interactive teaching should be encouraged.
- Practical exposure based learning should be given priority, as much as possible.
- Inclusion of concrete examples instead of abstract ones.
- Success stories of CWSN for inculcating positive attitudes and for motivating them.
- Need based and student centric curriculum.

Curriculum adaptation is changes permissible in educational environments which allow the CWSN equal opportunity to obtain access, results, benefits and levels of achievements. This consists of both accommodations and modifications. Some adaptations do alter or lower standards or expectations are termed 'modification' and the opposite of this is 'accommodation'. Hence, to be precise, 'modification' means a change in 'what' is being taught to or expected from the student and an 'accommodation' is change that helps a student overcome or around the disability.

Alteration

With the development of curriculum reform, more attention has been paid to the alteration in the implementation of curriculum reform. Alteration refers to the changes with the pre-designed curriculum goals during the curriculum implementation which are different from the original expectation in terms of curriculum characteristics and state. In curriculum implementation, especially for children with Hearing Impairment, there exist two types of alteration which are called 'amplification alteration' and 'attenuation alteration'. This cause of the alteration comes from the curriculum itself. In the process of curriculum implementation, efforts should be made to promote 'amplification alteration' and avoid 'attenuation alteration' because it is very imperative for the successful implementation of the curriculum[3].

Curriculum Adaptations and It's Types[4]

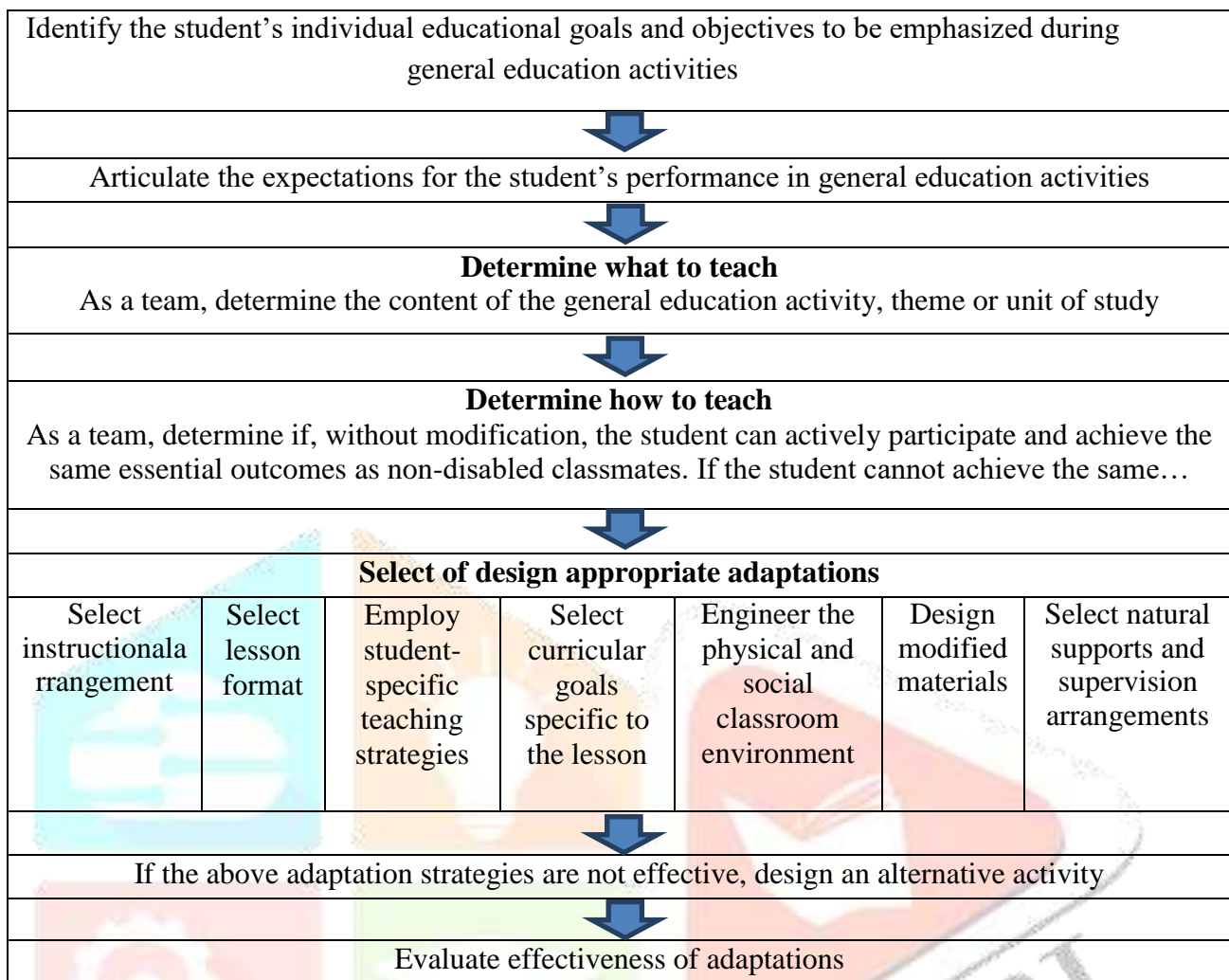| Quantity *	Time *	Level of Support *
Adapt the number of items that the learner is expected to learn or number of activities student will complete prior to assessment for mastery. For example: Reduce the number of social studies terms a learner must learn at any one time. Add more practice activities or worksheets.	Adapt the time allotted and allowed for learning, task completion, or testing. For example: Individualize a timeline for completing a task; pace learning differently (increase or decrease) for some learners.	Increase the amount of personal assistance to keep the student on task or to reinforce or prompt use of specific skills. Enhance adult-student relationship; use physical space and environmental structure. For example: Assign peer buddies, teaching assistants, peer tutors, or cross-age tutors. Specify how to interact with the student or how to structure the environment.

Input * Adapt the way instruction is delivered to the learner. For example: Use different visual aids, enlarge text, plan more concrete examples, provide hands-on activities, place students in cooperative groups, pre-teach key concepts or terms before the lesson.	**Difficulty *** Adapt the skill level, problem type, or the rules on how the learner may approach the work. For example: Allow the use of a calculator to figure math problems; simplify task directions; change rules to accommodate learners' needs.	**Output *** Adapt how the student can respond to instruction. For example: Instead of answering questions in writing, allow a verbal response, use a communication book for some students, allow students to show knowledge with hands on materials.
Participation * Adapt the extent to which a learner is actively involved in the task. For example: In geography, have a student hold the globe, while others point out locations. Ask the student to lead a group. Have the student turn the pages while sitting on your lap (for kids of kindergarten).	**Alternate Goals *** Adapt the goals or outcome expectations while using the same materials. When routinely utilized, this is only for students with moderate to severe disabilities. For example: In a social studies lesson, expect a student to be able to locate the colours of the states on a map, while other students learn to locate each state and name the capital.]	**Substitute Curriculum*** Sometimes called "functional curriculum" Provide different instruction and materials to meet a learner's individual goals. When routinely utilized, this is only for students with moderate to severe disabilities. For example: During a language lesson a student is learning toileting skills with an aid.

Note: *This adaptation is an accommodation if the student can demonstrate mastery of the standard on an assessment. The key concept is: Will the student ultimately master the same material but demonstrate that mastery in alternate ways or with alternate supports? If standards are not fundamentally or substantially altered, then this adaptation is an accommodation to a learning or performance difference. This adaptation is a modification if the students do not demonstrate mastery of the standard on an assessment. If routinely utilized; these adaptations are modifications and require individualized goals and assessment.*

Source: Ebeling, D.G., Deschenes, C., & Sprague, J. (1994). *Adapting curriculum and instruction.* The Centre for School and Community Integration, Institute for the Study of Developmental Disabilities.

Curricular Adaptation and Decision-making Process[5]

The below given decision-making flowchart can be used to conceptualize the process of selecting and implementing curricular adaptations. It should be used as a tool for a team in determining an individual student's needs.

Identify the student's individual educational goals and objectives to be emphasized during general education activities

Articulate the expectations for the student's performance in general education activities

Determine what to teach As a team, determine the content of the general education activity, theme or unit of study

Determine how to teach As a team, determine if, without modification, the student can actively participate and achieve the same essential outcomes as non-disabled classmates. If the student cannot achieve the same…

Select of design appropriate adaptations						
Select instructionala rrangement	Select lesson format	Employ student-specific teaching strategies	Select curricular goals specific to the lesson	Engineer the physical and social classroom environment	Design modified materials	Select natural supports and supervision arrangements

If the above adaptation strategies are not effective, design an alternative activity

Evaluate effectiveness of adaptations

Source: Udvari-Solner, A. (1994). Curriculum Adaptations Project.

Curricular Adaptation and Decision-making Model (Udvari-Solner, 1994)[6]

Examine the Structure of the Instruction

1. Can the student actively participate in the lesson without modification? Will the same essential outcome be achieved?
2. Can the student's participation be increased by changing the instructional arrangement?

From traditional arrangements to:

- Cooperative groups
- Small groups
- Peer partners
- Peer or cross-age tutors

3. Can the student's participation be increased by changing the lesson format?

- Interdisciplinary/thematic units
- Activity-based lessons, games, simulations, role-plays
- Group investigation or discovery learning
- Experiential lessons

- Community-referenced lessons

4. Can the Student's participation and understanding be increased by changing the delivery of instruction or teaching style?

Examine the Demands and Evaluation Criteria of the Task

5. Will the student need adapted curricular goals?
   - Adjust performance standards
   - Adjust pacing
   - Same content but less complex
   - Similar content with functional/direct applications
   - Adjust the evaluation criteria or system (grading)
   - Adjust management techniques

Examine the Learning Environment

6. Can the changes be made in the classroom environment or lesson location that will facilitate participation?
   - Environmental/physical arrangements
   - Social rules
   - Lesson location

Examine the Materials for Learning

7. Will different materials be needed to ensure participation?
   - Same content but variation in size, number, format
   - Additional or different materials/devices
   - Materials that allow a different mode of input
   - Materials that allow a different mode of output
   - Materials that reduce the level of abstraction of information

Examine the Support Structure

8. Will personal assistance be needed to ensure participation?
   - From peers or the general education instructor?
   - From the support facilitator?
   - From therapists?
   - From paraprofessionals?
   - From others?

Arrange Alternative Activities that Foster Participation and Interaction

9. Will a different activity need to be designed and offered for the student and a small group of peers?
   - In the classroom
   - In other general education environments
   - In community-based environments

Curriculum Adaptation: Conceptual Framework
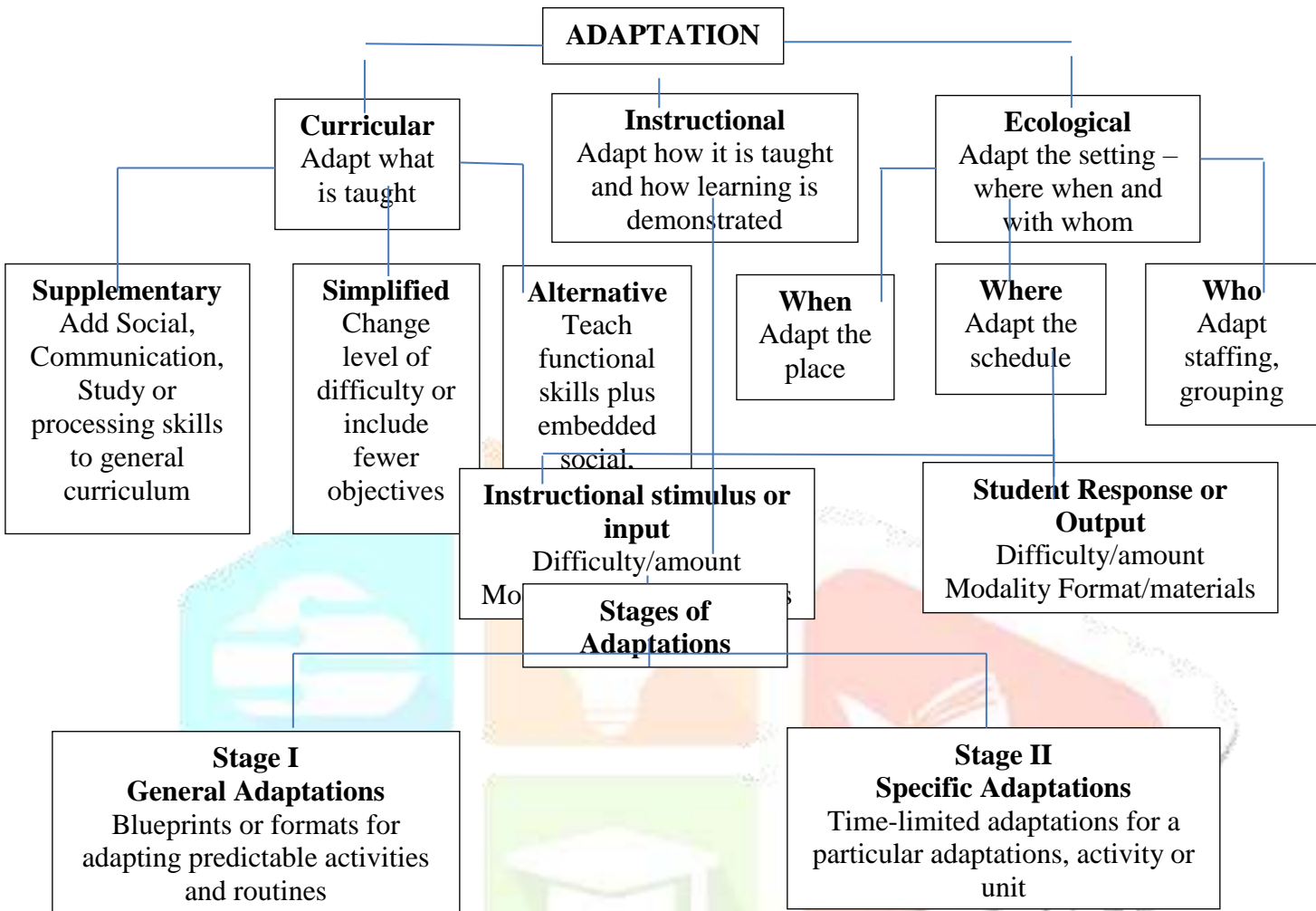
Adaptations for Children with Disabilities

For effective learning there has to a proper modification, adaptation and alteration of the curriculum. These exercises compensate the negative impact of disability on the learner. This lead to new educational possibilities and thus higher education becomes a reality for many students with disabilities and for others it helps to gain the minimum required learning for independent living. Teaching practices that support learning and development for children with disabilities are identified in the 'Head Start Child Outcomes Framework'. This section of the Leaders Guide focuses on adaptations for children with disabilities and is intended to assist disabilities coordinators in improving services to these children and their families.

The following is an excerpt from the Head Start Leader Guide to Positive Child Outcomes[7]:

- Adaptations for Children with Disabilities
- Environmental Support
- Materials Modification
- Modifying the Activity
- Using Child Preferences
- Peer Support
- Invisible Support
- Adult Support

Major confronting issues:
➢ Rigid school systems.
➢ Inflexible curriculum.
➢ Untrained/poorly trained staff.
➢ Lack of knowledge in the field.
➢ Stigma.
➢ Lack of supportive instructional materials.
➢ Pre-determined mind set/ pre-conceived notion.

The best possible and pragmatic solutions:
We are not a developed nation. We have miles to go before gaining entry into the elite club of developed nation. Even after 70 years of independence we are still struggling to meet our daily needs. Even after such long period, we have managed to reach 74.04% literacy rate[8.] Census 2011 records rise in literacy among PWDs. More than half on the total disabled population in India are now literate- an increase from 49.3% (2001) to 54.5% in 2011. However, this is significantly lower than the overall literacy level of India[9]. Despite this figure we have still many more steps to be taken for achieving goal. Keeping in view the country's limitation following steps may be taken to ensure much needed boost in education for all in general and PWDs in particular-

• Emphasizing inclusive education in letter and spirit.
• Attitude changes with PWDs.
• Awareness generation among masses.
• Suitably modifying, adapting and altering the curriculum so as to make it disabled friendly.
• Inclusion of various materials vis-a-vis success stories of PWDs in curriculum.
• Sensible use of ICT and other technological advancement while transacting curriculum.
• Emphasizing skill development and overall development.
• Updating and upgrading curriculum as per latest research findings and knowledge.
• Removal of various barriers that could hamper the learning among PWDs.
• Delinking of job with qualification and linking it to skill.
• Creating avenues for appropriate placement.
• Provisional population total-www.censusindia.gov.in. (As per census 2011).

References:
1. Sharma K (2013) Emerging trends in Inclusive Education (149) Ivy Publication, N. Delhi
2. Betts, G. W. (2017). INCLUDE strategy- A personalized approach. Retrieved from:
   http://professionallearning.westside66.org/include-strategy-a-personalized-approach/, on 22.07.2017.
3. Curriculum, teaching materials and method- 2004-03(J)]. 541ou; PENG hui-fang.
4. Substantially altered by Diana Browning Wright with permission from Jeff Sprague, Ph.D. from an original by DeSchenes, C., Ebeling, D., & Sprague, J. (1994). Adapting Curriculum & Instruction in Inclusive Classrooms: A Teachers Desk Reference. ISDD-CSCI Publication.
5. Janney, R., Ph.D., and Snell, M., Ph.D. (2000) Modifying Schoolwork; Baltimore, MD; Paul H. Brooks Publishing Company
6. Janney, R., Ph.D., and Snell, M., Ph.D. (2000) Modifying Schoolwork; Baltimore, MD; Paul H. Brooks Publishing Company
7. Adaptations for Children with Disabilities." The Head Start Leaders Guide to Positive Child Outcomes. HHS/ACF/ACYF/HSB. 2003. English.
   Last Reviewed: November 2009; Last Updated: October 6, 2014
8. www.thehindu.com-July 16, 2016 03:17IST
9. www.thehindu.com-July 16, 2016 03:17IST