

DUAL-EXCEPTIONALITY AMONG STUDENTS: A REVIEW OF THE CRUCIAL BUT HIDDEN PHENOMENON

Abstract :

In the present scenario of inclusive environment where focus is mainly on the provision of equal education to all the students despite special needs. **In other words, inclusive education is the need of time.** This study **deals with** the hidden phenomenon of a students who on one hand has a kind of disability, on the other hand possess giftedness, however due to the masking effect of either disability or giftedness keeps this phenomenon hidden from parents, teachers and even students themselves. This hidden phenomenon, popularly known as dual-exceptionality is not considered crucial in most schools which becomes an obstacle for **the academic and overall growth of those students who are not exactly like other peers.** The present study helps to understand the concept of dual-exceptionality and its impact on the learning process **by providing** an insight for researchers to draw conclusions regarding the presence of dual exceptionality, its impact on learners, and even **on** teaching. The findings lead to suggestions that such factors should be considered in pedagogy, and researchers, pedagogues, special educators and planners should take into account the factor of twice or dual exceptionality and utilise for better educational outcomes. It is quite likely that the teachers need to be further trained so that **they** can handle inclusive classrooms **s** effectively by employing differentiated instruction.

Key words: Dual-exceptionality, Disability, Inclusive education, Giftedness, differentiated instructions, Educational outcomes

1. Introduction

1.1. Dual-exceptionality

Though the concept of 'dual exceptionalities' is not of very recent origin, research in this area is somewhat new in the domain of education. John Hopkins University organized first conference on students with dual exceptionalities in 1980s which created a base of research in this field. And, the first book on this subject entitled 'providing programs for the Gifted Handicapped' was authored by [1]. **In the articles and books, there are valuable points to be made in terms of identifying and training students with both special needs, but so much uncertainty and speculation still exists.** There are also concerns that other groups, which may already be at risk, will be left behind in many of the studies that have been completed, focusing on one or two categories of socioeconomic status or only one or two disabilities.

More empirical researches are needed that are particularly focused on the identification of students with dual exceptionalities. As author [2] pointed out that the main points of the paper should be summarised and explained to the reader in the conclusion of the research paper. Although conclusions do not usually contain new information which was

not referred to in this article, they often recast these issues or offer a different view on the subject. The twice-exceptional education was initially started in the early 1970s but it refers only those students who are gifted but handicapped. Researcher [3] developed the term twice-exceptionality who planned to discrete new group of students who are gifted or intellectually talented but faces difficulty in learning. When at John Hopkins University, an academic conference on twice/dual exceptional children was organised many experts from special education field were invited and after that conferences researchers showed their deep concerns regarding dual-exceptionality. Since then, many researchers started their research work and designed many methods and tools for the identification of dual-exceptionality in the class and teaching strategies in order to meet the needs of these students. [4]

As defined by researchers [5], twice-exceptional learners are students who have the high achievement potential or creativity to excel or be productive in one or more domains i.e. math or the social sciences, etc however, they manifest some kind(s) of disabilities.

Student can exhibit any of the following disability or can also show some co-morbid signs of following disabilities:

- Attention-deficit/hyperactivity disorders (ADHD)
- Learning disabilities (verbal and non-verbal)
- Language and Speech disorders,
- Emotional and behavioural disorders,
- Conduct behaviour
- Autism spectrum disorders (ASD),
- Any kind of Physical disabilities,
- Obsessive compulsion disorder (OCD) and
- Bipolar disorder.

The combination of these disabilities and gifted abilities makes individuals unique, but the masking effects force them to show either giftedness or disability or sometime it leads to the identity crisis among the students because it is not easy to understand the prevalence of dual-exceptionality. Researcher [6] stated that there is very few information about the prevalence of dual-exceptionality among students. Identifying these people is not a piece of cake as it is a complicated process and needs experts to do it because of the masking effect these students giftedness some time empower the disability and sometime disability empower the giftedness. From the 5 decades, researchers and educators emerged with solid foundation which helps the teachers to build insight and also make them to understand their students properly and provide the tailored teaching according to their specific needs [7, 8]. It was noticed that these children had very typical type of logical thinking, different interest areas as cited in [7], and [8]. National Educational Association, 2006 in its publication on Twice-Exceptional Dilemma mentioned the following types of dual-exceptionality:

1.2. Types of Dual or Twice-Exceptionality

Gifted Students with Physical Disabilities

It has been seen that student's physical disabilities didn't halt them to achieve success in their life. Students with physical disability do have giftedness, Stephen Hawking, a Nobel prize-winner in physics, is a best example of this type.

1.2.1. Gifted Students with Sensory Disabilities

Students with any sensory disabilities comes under handicapped category but now-a-days things have tremendous changes these students showed their giftedness in many areas which make them to be the regular part of the school.

1.2.2. Gifted Students with Asperger Syndrome

Asperger Syndrome commonly known as Autism Spectrum and this order is associated with language and social deficit but there are different cases of autistic child some show low functioning autism and some show high functioning autism. The autistic student with high level of functioning shows great passion and knowledge and skills in many other areas.

1.2.3. Gifted Students with Emotional and/or Behavioural Disorders

It has been seen many time the student's shows conduct and emotional issues but in spite of understanding the reason behind their issues teachers and others started labeling these students. When teachers fail to identify the giftedness among students, these students' gets frustrated and their frustration come out in the shape of conduct disorder and emotional instability.

1.2.4. Gifted Students with Attention-Deficit/Hyperactivity Disorder

ADHD is an increasing issue of today's time. Most of the problematic child shows the symptom of ADHD. The students with Attention-Deficit/Hyperactivity disorder shows lack of attention and concentration and shows hyper activeness in doing any activity. News researches are also adding excessive usage of mobile during the childhood is also a big reason behind ADHD after genetic. But students with ADHD show the symptoms of giftedness and especially creativity too in variety of areas.

1.2.5. Gifted Students with Specific Learning Disabilities

Most of the dual-exceptional students come under this category where they show the symptoms of learning disability and giftedness simultaneously. But most these students remain unidentified these two qualities makes them an average child or masking effect empower the other. Albert Einstein considered of be a best example of this type.

1.3. Dual-Exceptionality and Education

The National Commission on dual-Exceptional Students [9] stated that Dual-exceptional students have ability to achieve success in their educational life and also enough creative to be a productive in one or more areas but simultaneously show some kind of disability in one or more areas according to the set criteria. Dual-exceptionality is a new term especially in education. Defect in cognitive processing leads to the deficiency in auditory and visual processing which has a negative impact on their academic achievement [10]. Early intervention in the primary school of these students can prove helpful to be successful in their future life. These students need attention and support from their parents and teachers to excel in their life. [11, 12].It is not a piece of cake either to identify or to provide intervention to the dual-exceptional students [10]. There is no scope of doubt in the existence of dual-exceptional cases in the school but these students always left unidentified and untreated which further increases their problem. Teachers are neither trained enough to identify the exceptionality among students nor to provide teaching according to their learning needs. Where, we train teachers to take care of individual difference in the classroom how can we afford to take risk of ignoring dual-exceptional cases in the classroom. Because of the dual exceptional effect the students feels confused and frustrated and it affects their self-efficacy which ultimately effect negatively on their academic achievement. In spite of gifted student

characteristics these students lack in necessary skills which is important for their success in school and after school life [13].

1.4. Dual-Exceptionality and Identity Crisis

This overlapping of giftedness and disability i.e. dual-exceptionality/2E/twice-exceptionality creates a confusion among the students which leads to the identity crisis among the students. The concept of dual-exceptionality gives us a deeper insight of students. Students do have weak and strong aspects of their life but because of masking effect sometime we are not able to see the giftedness and sometime disability which makes the teacher and parents to misdiagnose the child. Individuals with Disabilities Education Act (IDEA) finally recognised the dual-exceptionality on the classroom [14, 15]. But still, an educational system doesn't turn an eye towards the betterment of dual-exceptional students [16]. The National Research Center on the Gifted and Talented at the University of Connecticut (NRCGTUC, 2012) stated that **dual-exceptionality is no more a rare phenomenon**. It further reported that 20% of students come under dual-exceptional population, but they remain unidentified. Identification of the dual-exceptional students is emerging need all over the world but the process of identification is not so easy. The overlapping of dual-exceptionality hampered the educational and overall life of students which not only spoil the present but future of the student which indirectly affect the success and failure of a nation too.

2. Systematic review

Twenty studies related to the present study have been systematically reviewed. Their summaries have been presented in Appendix-A. Details can be accessed through the references.

3. Methodology

3.1. Objectives

- to understand the concept of dual-exceptionality,
- to study its impact on the learning and teaching process,
- to explore teachers' training need to deal with the learners with dual exceptionality.

3.2. Research questions

- 1- What are the needs of students with dual exceptionality?
- 2- What challenges do students and teacher face due to dual exceptionality?
- 3- Why are proper teaching strategies needed for students with dual exceptionality?
- 4- What are the needs and areas of teacher development?
- 5- Why is planning and curriculum modification needed?

3.3. Data Collection

The author searched on goggle for data related to the present study. Each research was skimmed and important points were noted down. Quite a few studies were found related which could create the basis for the systematic review.(Appendix-A)

4. FINDINGS & DISCUSSION, CONCLUSIONS & RECOMMENDATIONS

4.1. Findings

4.1.1. Need of students with dual exceptionality

It was found that there is a prevalence of dual exceptionality in the students who were studied. It is not a rare phenomenon rather quite common, however can't be noticed unless the teachers are able to use their knowledge and experience in identification of such traits. Author [38] focused on addressing the needs of students having twice-exceptionality while [39] examined teachers' perceptions of twice exceptional students so problems of learners can be well diagnosed ahead of time to cater to the learner's need for maximum outcomes.

4.1.2. Disadvantage of Dual exceptionality

It has been found that students suffering from dual exceptionality need special attention which requires specific ability to identify and later application of appropriate strategy of teaching or a suitable pedagogy. If such arrangements are not made, the dual exceptional learners will face disadvantage or many disadvantages.

According to researcher [40], identifying twice-exceptional students is quite problematic because there is always a "risk of misdiagnoses" and a "risk of missed diagnoses." There are three groups which can be distinguished and diagnosed among students having twice-exceptionality. [41]

4.1.3. Lack of proper teaching strategies

Related studies revealed that proper teaching strategies are required to be incorporated to instruct dual exceptional children to avail of maximum opportunities to develop them. Authors (42) recommended certain learning strategies that are useful for learners having dual exceptionality.

4.1.4. Need of teacher development

In order to deal with dual exceptionality, the teachers need to be well prepared. If not, professional development is needed so they can utilise inputs in the classroom instruction and teach such students.

4.1.5. Need of planning and curriculum modification

Keeping the above findings in view, there is a need of curriculum development or modification so that the curriculum can meet the specific needs of the dual exceptionality students.

5. Conclusion and recommendations

5.1. Conclusion

It is concluded that researcher has found the prevalence of dual-exceptionality among students but the masking effect (one empower the other) of dual-exceptionality keep this hidden from others even from students themselves.. The teacher's inability to identify dual-exceptional students can lead to the lack of proper strategies needed by dual-exceptional students which is the main reason behind their low level of self-efficacy and low level of academic achievement. The single gifted students show better self-efficacy than dual-exceptional students. Due to the lack of teaching-learning strategies, the dual-exceptional students struggle a lot in their studies. The common problem that has been found in most of the researches is that the teachers focused their teaching strategies in the remediation of the students' weakness and doesn't provide attention towards their strength development. High level of self-efficacy and better academic achievement has been seen among dual-exceptional students who received tailored teaching-learning strategies by their teachers.

5.2. Recommendation

Based on findings and conclusions, it is recommended that a systematic study and identification of dual exceptionality is required. In addition, teacher development should take place. Finally, curriculum development is also needed. A systematic experimental study is required in this direction to delve deeper into the issues related to dual exceptionality.

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Appendix –A. List of related studies findings

Author(s)	Findings
Bianco, Leech [17]	Study revealed significant differences among teacher groups. Special education teachers' comments expressed their emphasis on different kinds of students' weaknesses. Teacher preparation was found as a key variable.
Rowan, Townend [18]	Teachers were not appropriately developed to teach diverse students.
Wormald [19]	Schools failed to identify gifted learning disabled students, therefore the need of such students could not be met.
Missett et al. [20]	Teacher instructional choices were directed almost exclusively toward features of student disability and remediation rather than toward evident strengths and their development
Akar, &Akar [21]	the support of the family plays a crucial role throughout the education life of the twice-exceptional student. Those dual-exceptional students who receive good amount of support from their parents are better in their academic achievements.
Hopwood [22]	The result showed that teachers need specific training in order to handle the twice-exceptional students
Klingner [23]	The focus of this paper is on understanding the children, who are brilliant on one hand, the behaviour is risky on the other. the biggest challenges for them face is misdiagnosis
Wang & Neihart [24]	The result of the study clearly indicated that the high-academic self-efficacy among dual-exceptional students help them to enhance in their academic life.
Dare & Nowicki [25]	Twice-exceptional students have abilities and learning difficulties simultaneously, however dual-exceptional students are usually undiagnosed which create issues.
Barber & Mueller [26]	It is found that the twice-exceptional learners had unfavourable learning experience due to the teacher's inability to identify their strength and weakness.
Baska [27]	No common ground found available to identify the students' giftedness and disability ultimately leading to the lack of awareness regarding the prevalence of dual-exceptionalities.
Soniya, et al [28]	Students having dual exceptionality are increasingly recognized in 21 st century institutions. Therefore, this awareness needs to be well utilised by developing understanding about the needs of such students.
The National Education Association [29]	The dual- exceptional students are among the under-identified population of the schools. It is rather not easy to identify the dual-exceptional students as their giftedness can mask their disabilities and vice versa which further frustrate them and creates a sense of confusion which contribute to a student's low academic self-efficacy
Amran and Majid	The study reported that teaching -learning strategies should be

[30]	tailored according to the strength and weakness of these students and emphasis for their emotional and social support. Effective intervention can help these students to overcome their academic difficulties.
Wu et al. [31]	The study shows that able learners having autism spectrum disorder (ASDs) reflect potential for high achievement and creative productivity but they face anxiety disorders and poor self-concept.
Missett et al. [32]	Teacher instructional choices were directed almost exclusively toward features of student disability and remediation rather than toward evident strengths and their development
Willard-Holt et al. [33]	Findings revealed that participants felt that school system failed to provide them a better and conducive learning environment. Further showed the concern regarding the use of teacher's teaching strategies towards the dual-exceptional students which play an important role to create a better learning environment for them.
Schultz [34]	The educational system must provide appropriate learning experiences to these students in order to develop their strength and potential, and approaches that encourage these students' abilities are best for their academic outcomes.
Assouline & Whiteman [35]	The results revealed a comprehensive evaluation in understanding the strengths and weaknesses of dual-exceptionality students to prepare an appropriate teaching strategies and early intervention in school.
Bracamonte [36]	Teachers complaints about students diagnosed with dual-exceptionality noted the absence of a school program to support both exceptionalities. The findings further showed the concerns on the crack of educational system through which these dual-exceptional students easily get slipped.