Digitized Home Visit Education Service: A Trained Teaching Learning Attendant Visits the Student, and a Qualified Special Educator Connects Online to Collaboratively Conduct Classes

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Abstract:- The Indian National Education Policy emphasizes the need for alternative methods to provide education and vocational training opportunities to individuals with disabilities. In this paper, we propose an innovative approach to address this issue by developing an online platform that connects professionals from various disciplines and stakeholders to offer educational and vocational training opportunities to individuals with disabilities at their homes while promoting social inclusion. The platform incorporates state-of-the-art technologies to provide personalized and interactive learning experiences to individuals with disabilities (Singh & Jain, 2020). It also facilitates the exchange of knowledge and best practices among professionals and stakeholders to promote inclusive education practices (Kumar & Sharma, 2020). The paper discusses the potential benefits of digitized home education for individuals with disabilities and highlights the challenges that need to be addressed to ensure the success of this approach (Banerjee, 2021). We believe that this approach has the potential to revolutionize the way individuals with disabilities access education and vocational training opportunities, ultimately promoting their social and economic inclusion in society (Nair & Reddy, 2022; Gupta et al., 2021).

I. INTRODUCTION

Education holds paramount importance for individuals and societies, providing knowledge, skills, and abilities crucial for understanding the world. A well-rounded education enhances employability, opens doors to diverse career opportunities, and fosters social interaction and communication skills. Moreover, it contributes to economic growth by increasing productivity and innovation, thereby driving economic development (Smith, 2018).

In India, efforts have been made to promote inclusive and equitable education, ensuring that all children, including those with disabilities, have access to quality education. The National Education Policy (NEP) of 2020 is a significant step in this direction, aiming to address challenges in the education system and create a more responsive and inclusive framework (Government of India, 2020). However, challenges persist in admitting students with disabilities to mainstream schools, including physical barriers, lack of resources, and societal attitudes (Sinha et al., 2019).

Parents of children with disabilities face unique challenges, including difficulty finding inclusive and well-equipped mainstream schools. Specialized education and support services can be expensive, and societal stigma may hinder integration into mainstream settings. Providing education for a child with a disability can take an emotional toll on parents, contributing to stress and mental health challenges (Singh & Mitra, 2019).

Despite the challenges, some parents choose not to opt for special schools in India. Inclusive education, emphasizing educating children with disabilities alongside their peers, is gaining importance. Parents recognize the social and holistic development benefits of inclusive education, prioritizing normalized environments over potential stigmatization in special schools. The limited availability of specialized schools in certain regions also influences this decision (Sharma, 2020).

Home education, a broader term encompassing various non-traditional approaches conducted at home, offers flexibility and customization. It includes methods beyond parent-led homeschooling, such as online courses and cooperative learning groups (Ray, 2017). The status of home education services in India varies, and the COVID-19 pandemic has increased interest in alternative education, including homeschooling (Bhatia, 2021). There are many situations in which most parents do not prefer to be directly involved in homeschooling and like to appoint somebody to come to their home to teach the child. The reason can be that the parents are not willing or confident in teaching. They can not manage their time because of their work or due to health issues or other family situations.

➤ *Advantages of Home Education:*

- Safety of the child - physical and emotional.
- Less burden to family members.
- Professional interaction with family members and with the community.
- Family members can be involved.
- Awareness in the community.
- Better income.

➢ *Disadvantages of Home Education:*

- Less control over learning environment.
- Relationship issues may arise.
- Stress to the teacher.
- Difficulties in traveling.

Considering the challenges faced by parents, home-based special education and therapy services as a form of self-employment in India can address the need for personalized and convenient support.

Addressing challenges in the education system for children with disabilities requires collaborative efforts from stakeholders. Promoting awareness, improving accessibility, and advocating for inclusive practices can create a supportive environment. Whether choosing inclusive education, special schools, or home-based services, decisions should align with the unique needs of each child and family.

➢ *Digitized Home Visit Education and Therapy Service*

Digitized Home Visit Education and Therapy Service is an innovative idea. Digitizing home education involves incorporating digital tools, technologies, and online resources to enhance the learning experience for students who are educated at home (Chai et al., 2022). The components of the service model and how online and digital technologies can be utilized will be explained in this paper. The model has many advantages for children with disabilities and parents who do not have access or a preference for special schools, inclusive schools, or homeschooling (Shah, 2021). The paper will also discuss the various challenges in implementing and running the model as a profit-making educational service business (Wang et al., 2023).

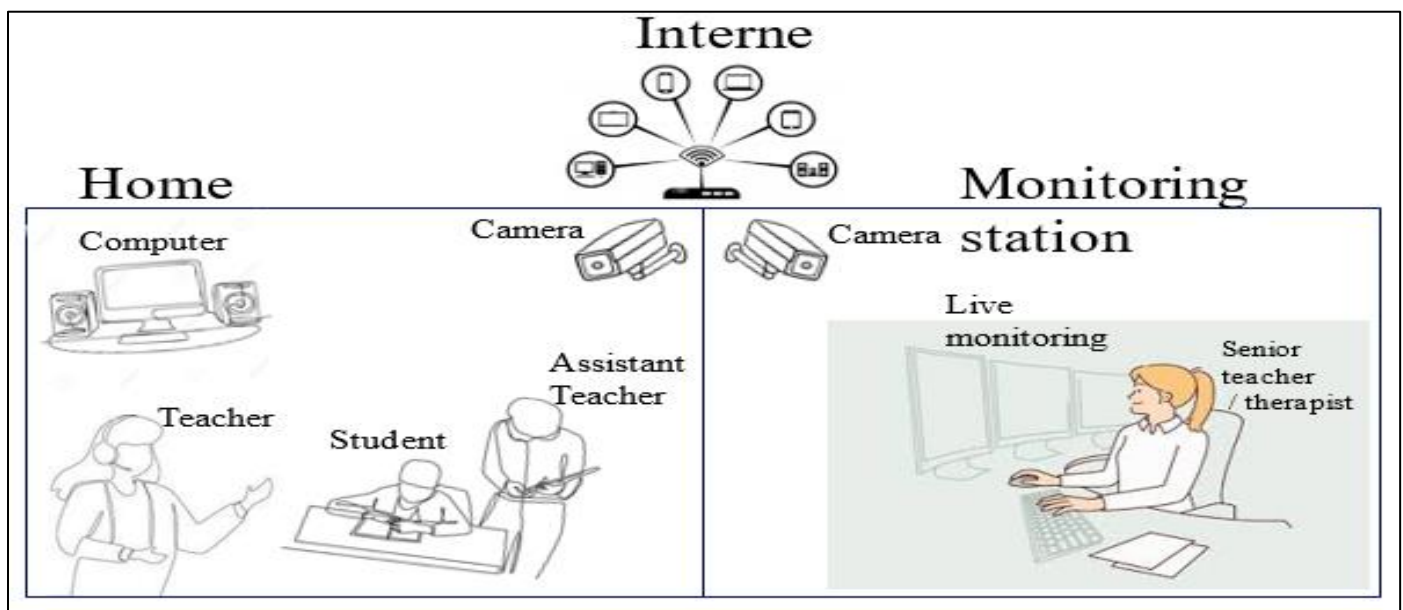➢ *The Core Part of Digitised Home Visit Education and Therapy Service:*

Fig 1 Digitised Home Visit Education and Therapy Service.

➢ *The Core Digitized Home Visit Education Service:*

- *System Components:*
  ✓ Home, Monitoring Station, and Internet: The system integrates these three parts to ensure a seamless education delivery.
  ✓ Teachers' Role: Teachers are focused on providing effective training. They are empathetic and friendly with the learner. If the effectiveness lessens, they conduct action research to explore and adopt better training methods.
  ✓ At Home: Two teachers attend to the student with an individualized activity plan. One leads the learning activity while the other supports the learner in understanding instructions. Digital training materials are accessed from cloud storage, and teachers may travel by two-wheeler or cab, carrying necessary materials.

➢ *The Learner:*

- Typically, the learner is a student with special educational needs who faces challenges accessing mainstream inclusive schools or therapy centers. However, home education services can also benefit students without special needs who require flexible education solutions, such as athletes.

➢ *Assessment and Monitoring:*

- Upon enrolling, a case history and assessment are conducted to understand the learner's needs. Remote live monitoring by a senior special educator or therapist ensures regular screening and specific assessments for medical, psychological, and learning needs. For instance, if a 6-year-old student like Sunchitha exhibits unusual behavior, a referral to a pediatric psychologist might be made.

> *The Home Environment:*

● Parents receive guidance on setting up an effective home learning environment. The teacher and senior teacher continuously assess and modify the setup to improve learning outcomes, considering the child's learning style, objectives, and cost.

> *Remote Live Monitoring:*

● This critical component involves a senior teacher or therapist monitoring the training via a live feed. This ensures the safety of the student and the productivity of the session.

> *The Senior Teacher or Therapist:*

● A qualified professional monitors the session, providing feedback and interacting with the teachers and learner through video calls. They also address any queries from parents or caretakers.

> *The Teaching and Learning Attendant:*

● A teaching and learning attendant will be present with the student while the qualified teacher conducts the session. This attendant plays a vital role not only in the teaching and learning process but also in raising community awareness about inclusion. The attendant will receive training in special education, inclusion principles, basic teaching methods, and specific behavior management techniques to support the student during the session and ensure optimal engagement in learning. They will prepare the environment and materials for the session and, having been trained to assist the student throughout the learning process, will appropriately prompt the student following the teacher's instructions. A parent or family member serving as a teaching and learning attendant may have more advantages than an appointed individual. However, many parents and family members cannot assume this role for personal reasons. When a parent or family member is unable to fulfill the role of teaching and learning attendant, a person from the neighborhood will be preferred over a candidate who is not a neighbor to the student. The attendant will also be trained to educate community members about inclusion through demonstration and active dialogue.

> *Internet Technologies:*

● Internet technologies are used to connect the home training environment with the institution with visual and audio equipment for monitoring the training session and permitting interaction among the senior teacher or the therapist who is monitoring the session with the teachers at the delivery end, the student attending the class and the parent or caretaker of the student.
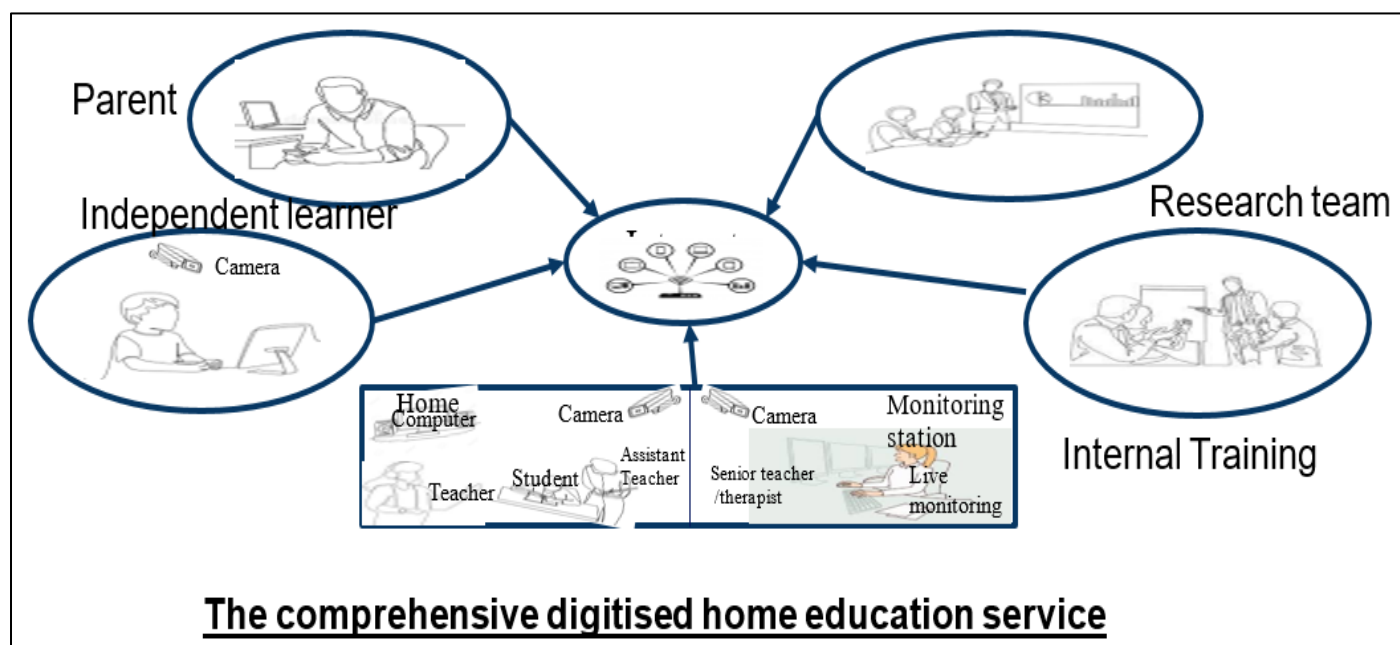
> *The Comprehensive Digitized Home Visit Education Service:*

Fig 2 The Comprehensive Digitised Home Visit Education Service.

The core digitised home education system is connected with cloud storage for the session recordings stored. Access to parents will be given to watch the session lively from remote. The research team access the session for intense research and the findings will be provided to internal traning team. The internal training team use the research finding for internal professional development programs.The learner who prefers to attend the online session will be monitored with additional camera, this helps the teacher to watch the behaviour of the learning and his environment. The specific observations of the teachers and learner by the researchers will be informed to the concern teacher and student for making necessary instructional or learning behaviour change.

➢ *Case Study:*

One of our online students, Khalid, is known for distracting the class by telling stories. When the teacher tries to strictly control him, he often disrupts the session by turning the internet connection on and off. Such an independent learner requires live remote monitoring with an additional camera to enable the teacher to understand the learning environment better (Ali, 2023).

➢ *System Components:*

● Cloud Storage: The core system connects with cloud storage to store session recordings. Parents are given access to watch sessions live from remote locations.
● Research Access: The research team accesses the sessions for in-depth research. Findings are shared with the internal training team, which uses them for professional development programs.
● Additional Monitoring for Online Learners: Learners who prefer online sessions are monitored with an additional camera. This allows the teacher to observe the learner's behavior and environment. Specific observations by researchers are communicated to the concerned teacher and student to facilitate necessary instructional or behavioral changes.
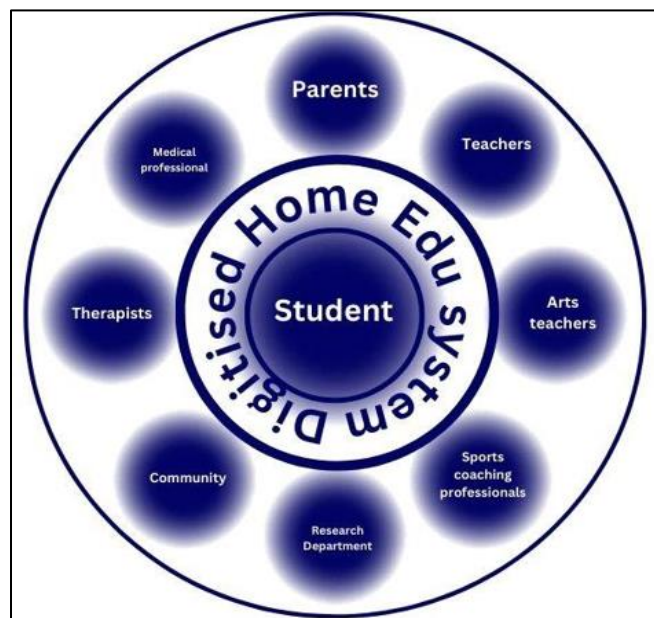
➢ *The Digitized Home Visit Education Service Platform:*

Fig 3 Home Education Service Online Platform

A platform connects the stakeholders using the comprehensive digitized home education system. Students needing home education services, their parents, teachers, therapists, researchers, sports and fitness coaches, art teachers, and community members can join the platform. This creates a community of diverse populations, enabling various online and offline value-adding activities based on the members' needs and interests. Teachers, therapists, art teachers, and other professionals can easily reach out to the students and earn by providing their services (Nair et al., 2024).

II. CONCLUSION

Climate change is alarming, prompting many to consider starting virtual schools. In this context, digitized home education services will likely be a promising education method in the future. It can be a reliable alternative for students who need or prefer home education. Visiting teachers play a critical role, acting with empathy, and family members and neighbors can learn empathy by observing them. Practicing empathy in the community fosters inclusivity in all activities. The internet platform can connect students, teachers, therapists, sports and fitness coaches, art teachers, and local community members seeking part-time jobs, creating a rich, diverse community (Gupta & Singh, 2024).

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