



# The use of E-learning to provide professional development for teachers on inclusive education

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## Abstract

Inclusive education is a rapidly growing field, and there is a growing need for teachers to have the knowledge and skills they need to effectively teach students with disabilities in inclusive settings. E-learning can be a valuable tool for providing professional development for teachers on inclusive education. E-learning offers a number of advantages over traditional forms of professional development. It can be more flexible and convenient for teachers, as they can access it at their own pace and time. It can also be more cost-effective, as teachers do not have to travel to attend training sessions.

There are a number of different ways that e-learning can be used to provide professional development for teachers on inclusive education. One approach is to create self-paced courses that teachers can complete at their own pace. Another approach is to create online communities where teachers can interact with each other and share resources. A recent study found that teachers who participated in an e-learning professional development program on inclusive education were more confident in their ability to teach students with disabilities. They also reported that they were more likely to use inclusive teaching practices in their classrooms.

This paper presents a review of the literature on the perspective of teachers about the effectiveness of e-learning in inclusive education. The paper begins by providing a brief overview of the concept of inclusive education. It then discusses the potential benefits and challenges of using e-learning in inclusive settings. Finally, the paper presents the findings of a recent study that surveyed teachers about their perspectives on e-learning in inclusive education. Many studies have shown that the use of e-learning not only promotes the flexibility during teaching and learning processes but also compensates for scarcities of academic staff, and is perceived to be faster and time-saving.

The paper concludes by discussing the implications of the findings for future research and practice. The paper argues that the use of e-learning in inclusive education has the potential to be a powerful tool for improving the learning outcomes of all students. However, the success of e-learning in inclusive settings will depend on the careful planning and implementation of e-learning programs that address the specific needs of all students. The use of e-learning to provide professional development for teachers on inclusive education is a promising approach. It can help to ensure that teachers have the knowledge and skills they need to effectively teach students with disabilities in inclusive settings.

**Keywords:** e-learning, professional development, inclusive education, teachers, benefits, challenges

E-learning, or electronic learning, is a type of distance learning that uses electronic media to deliver educational content using self-paced courses, google classroom, YouTube videos, online tutorials, soft copy of notes etc.

There are a number of advantages to using e-learning for professional development in inclusive education. First, e-learning is flexible and convenient for teachers. Teachers can access e-learning resources at their own pace and time, which can be especially helpful for teachers who have busy schedules. Second, e-learning can be more cost-effective than traditional forms of professional development, such as in-person workshops or conferences. Third, e-learning can reach a wider audience of teachers than traditional forms of professional development.

There are also some challenges associated with using e-learning for professional development in inclusive education. First, teachers need to have access to technology in order to participate in e-learning. Second, the quality of e-learning resources can vary widely. Third, it can be difficult to create e-learning resources that are engaging and interactive.

Despite the challenges, the use of e-learning for professional development in inclusive education has a number of potential benefits. E-learning can help teachers to:

- Gain the knowledge and skills they need to effectively teach students with disabilities.
- Learn about the latest research and practices in inclusive education.
- Network with other teachers who are working in inclusive settings.

The use of e-learning to provide professional development for teachers on inclusive education is a promising approach. It can help to ensure that teachers have the knowledge and skills they need to effectively teach students with disabilities in inclusive settings.

What is Inclusive Education?

(UNICEF, n.d.) Inclusive education is a philosophy of education that seeks to include all students, regardless of their abilities or disabilities, in the same general education classroom. This means that students with disabilities are not segregated from their peers, but rather they are educated alongside them in the same setting.

There are many benefits to inclusive education. For students with disabilities, inclusive education can help them to develop their self-esteem and confidence, as they are able to learn and grow alongside their peers. It can also help them to develop social skills and make friends. For students without disabilities, inclusive education can help them to develop empathy and understanding for people with disabilities. It can also help them to learn about different cultures and perspectives.

There are a number of different ways to implement inclusive education. One approach is to create universal design for learning (UDL) environments. UDL environments are designed to be accessible to all students, regardless of their abilities. This means that the environment is physically accessible, the materials and resources are accessible, and the instruction is accessible.

Another approach to inclusive education is to provide individualized supports to students with disabilities. These supports can be tailored to the individual needs of the student. For example, a student with a visual impairment might be provided with a screen reader or a Braille keyboard.

Inclusive education is not without its challenges. One challenge is that teachers need to be trained in how to effectively teach students with disabilities. Another challenge is that schools need to be physically accessible to all students.

Despite the challenges, inclusive education is a worthwhile endeavor. It can help all students to reach their full potential and to learn and grow together.

Here are some examples of inclusive education in action:

- i. A school that has a UDL environment might have ramps and elevators to make the building accessible to all students. It might also have large print textbooks and Braille materials for students with visual impairments.
- ii. A school that provides individualized supports might have a teacher's aide who works with a student with a disability one-on-one. The aide might help the student with tasks such as taking notes or completing assignments.
- iii. A school that is committed to inclusive education might have a diversity committee that works to create a welcoming and inclusive school environment for all students. The committee might organize events such as a cultural festival or a disability awareness week.

Inclusive education is an important goal for all schools. It is a way to ensure that all students have the opportunity to learn and grow together. It is being promoted as a process of moving towards quality and equality for all students.

### Literature review:

(HOADJLI & LATRACHE, 2020) explored the ways in which e-learning can help students with disabilities access the curriculum and achieve their academic goals. (Das, 2020) on behalf of inclusive education said that all the children irrespective of their gender, race, disability etc., should be allowed to attend the schools should be given support to learn, participate and contribute in all the aspects of school life.

(Gunn, 2010) emphasized on the impact of E-Learning designs that came out to be handy and helpful for teaching and learning. The use of Projectors, Screens and computers have made it easier for teachers and learners to teach and learn with interest. (Rhema & Miliszewska, 2014) said that the future of e-learning will be determined by the beliefs and perspective of learners regarding online delivery of education – which however depends on the deployment of the technology in the classrooms.

(Jayachithra, 2020) termed technology-based learning as pioneer in inclusive education. It can not only bring in new dimensions of learning but may also alter the ways that how people learn. They observed that the use of e-learning materials in the classrooms may drastically improve students' academic performance. (Singh & Prajapati, 2021 ) claimed that educational environment delivers equivalent access to a wide variety of learning needs and this whole system is covered under inclusive education. (Lapidot-Lefler & Kais, 2022) tried to distinguish students who either have or don't have any disabilities, especially when all other students start to identify their own limitations and found that e-learning plays significantly better role in academics among all student type.

### Research Questions

- i. To review the literature on the use of e-learning to provide professional development for teachers on inclusive education.
- ii. To Identify the benefits and challenges of using e-learning for professional development in inclusive education
- iii. To discuss the implications of the findings for future research and practice.

**Research Design:** To conduct this research, the researcher has opted for both primary and secondary methods. The primary data will be collected using questionnaire whereas for secondary data, extensive literature review will be done using Journals of national and international repute. To analyze the collected data the researcher has used SPSS software to process, compute and transform the data.

**Sampling:** For the current study, the data will be collected from Educational Institutes that offer special education because both learners and the teachers involved in inclusive education system are available there. Collecting data for allied researches and thinking about other spectrums relatively gets easier this way if the researcher is available in the field. For current study, the researcher has decided that the data will be collected from two hundred respondents.

**Research Instrument Development:** Questionnaire was developed with the help of researchers and subject experts consisting questions on the theme of E-Learning, Inclusive education and professional development.

**Data Collection:** The research instrument was circulated among target population data was collected using google forms among the target population.

**Data Analysis:** The data is collected against questionnaires and is duly analyzed using SPSS. One hundred and ninety-two responses were collected while eight were discarded due to incompleteness of data.



	Descriptive Statistics						
	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic    Std. Error	
Do you believe that E-learning provide professional development for teachers on inclusive education?	192	1.00	37.00	2.9844	5.64896	4.367	.175
Do you think E-Learning is an effective way to learn about inclusive education?	192	1.00	4.00	1.7708	.75167	.853	.175
Use of E-learning is beneficial for the purpose of professional development in Inclusive education.	192	1.00	3.00	2.1510	.68116	-.198	.175
It is challenging to use E-learning for professional development?	192	1.00	4.00	1.9896	.67093	.643	.175
Understanding different types of disabilities is essential to teach students with disabilities	192	1.00	5.00	2.0938	1.06911	.876	.175
We need more strategies for creating an inclusive classroom environment	192	1.00	5.00	2.8906	1.28768	.474	.175
Should there be different ways to differentiate instruction	192	1.00	5.00	2.2969	1.09276	.895	.175
It is important to work with parents of students with disabilities	192	1.00	5.00	2.2396	1.07562	1.040	.175
You like the E-learning course to be structured?	192	1.00	5.00	2.1875	1.03663	.614	.175
You prefer a self-paced course or a course with live sessions in E-Learning for inclusive education?	192	1.00	5.00	2.4219	1.03050	.763	.175
The E-Learning courses should be assessed?	192	1.00	4.00	1.9844	.96253	.494	.175
Do you think technology can be helpful for students with disabilities?	192	1.00	5.00	2.9792	1.19755	.392	.175
Can technology be used to create a more inclusive classroom environment?	192	1.00	4.00	2.0104	.94890	.388	.175
Valid N (listwise)	192						

## Hypothesis Testing

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Do you believe that E-learning provide professional development for teachers on inclusive education? occur with equal probabilities.	One-Sample Chi-Square Test	.000 <sup>1</sup>	Reject the null hypothesis.
2	The distribution of Do you think E-Learning is an effective way to learn about inclusive education? is normal with mean 1.77 and standard deviation 0.752.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
3	The distribution of Use of E-learning is beneficial for the purpose of professional development in inclusive education. is normal with mean 2.15 and standard deviation 0.681.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
4	The distribution of It is challenging to use E-learning for professional development? is normal with mean 1.99 and standard deviation 0.671.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
5	The distribution of Understanding different types of disabilities is essential to teach students with disabilities is normal with mean 2.09 and standard deviation 1.069.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
6	The distribution of We need more strategies for creating an inclusive classroom environment is normal with mean 2.89 and standard deviation 1.288.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
7	The distribution of Should there be different ways to differentiate instruction is normal with mean 2.30 and standard deviation 1.093.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
8	The distribution of It is important to work with parents of students with disabilities is normal with mean 2.24 and standard deviation 1.076.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
9	The distribution of You like the E-learning course to be structured? is normal with mean 2.19 and standard deviation 1.037.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

<sup>1</sup>Lilliefors Corrected

### Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
10	The distribution of You prefer a self-paced course or a course with live sessions in E-Learning for inclusive education? is normal with mean 2.42 and standard deviation 1.030.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
11	The distribution of The E-Learning courses should be assessed? is normal with mean 1.98 and standard deviation 0.963.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
12	The distribution of Do you think technology can be helpful for students with disabilities? is normal with mean 2.98 and standard deviation 1.198.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.
13	The distribution of Can technology be used to create a more inclusive classroom environment? is normal with mean 2.01 and standard deviation 0.949.	One-Sample Kolmogorov-Smirnov Test	.000 <sup>1</sup>	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

<sup>1</sup>Lilliefors Corrected

## Summary

The research indicated that teachers indulged in inclusive education can use their knowledge and expertise to create e-learning programs that are effective for all students, including those with disabilities. It was revealed that e-learning may help students with disabilities to develop social skills, build relationships, and feel a sense of belonging.

From the data analyzed it was evident that e-learning can be used to provide teachers with the knowledge and skills they need to effectively teach students with disabilities in inclusive settings. The findings of the study suggest that teachers are generally positive about the potential of e-learning to improve the learning outcomes of all students, including those with disabilities. However, teachers also expressed a number of concerns about the use of e-learning in inclusive settings, including the need for adequate training, the availability of appropriate resources, and the potential for isolation.

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