

Readiness of General Education Teachers for Implementation of Universal Design for Learning in General Education Classrooms for Differently able Students

Faiza Jaleel¹
Abid Hussain Ch.²
Asma Kanwal³

Abstract

This descriptive study was aimed to investigate “readiness of general education teachers for implementation of universal design for learning in general education classrooms for students with disabilities”. Main objective of the study was to investigate the readiness of prospective and in-service general education teachers for implementation of universal design for learning in general education classrooms for students with disabilities. The population of the study was prospective and in-service general education teachers from which a sample of 200 (80 in service and 120 prospective) was recruited by purposive sampling technique from various educational institutions in Lahore. A validated five-point rating scale comprised of 28 questions was constructed ($\alpha=0.939$). The researchers personally approached to the participants to collect the data. Data was analyzed by using inferential analysis techniques. It was concluded that prospective teachers were more ready to implement universal design for learning in general education classroom for differently able students as compare to in service teachers.

Keywords: readiness, universal design for learning, general education teachers and differently able students.

¹ PhD (Special Education) Scholar, University of the Punjab, Lahore Pakistan
Lecturer (Special Education) University of Education, Lahore, Pakistan
Faiza.jaleel@ue.edu.pk

² Professor, University of the Punjab, Lahore, Pakistan

³ Lecturer(Special Education), University of Education lahore

Introduction

Various teaching professionalism approaches reinforce teaching profession that has strong qualities in it. Many social and political circumstances become the cause of advancement in teaching. Now the concept of teaching profession is perceived in new ways rather than to accomplish a bundle of extra duties i.e. being overloaded, numerous tasks and working under objective mechanism of professionalism (Demirkasımoğlu, 2010).

Teacher Education programs play vital role in nourishing the purpose of social justice and equity in schools. This purpose can be achieved by preparing in-service and pre-service teachers to comprehend the true meanings of equity and diversity with the provision of activity based professional development training courses and to avoid the deficient knowledge regarding potential of students with different needs. In the field, prospective teachers apply their viewpoints, attitudes and knowledge which are influenced by learning experiences through these programs. Tertiary education institutions by following these suggestions can produce such teachers devouring concerned potential to elevate the standpoints, paradigms and content for the rights of students with special needs to assure education for all which is still needed (Nieto, 2000).

Developing countries are struggling realistically for the inclusive education of students with special needs who are mostly disadvantaged of even basic education. Significant factors such as categories, numerical numbers, strategic plans, provision of material and financial capitals and professional development as well as reliable and coherent method are seriously needed for inclusive education being accomplished fruitfully (Bines, & Lei, 2011).

In modern ages, inclusive education philosophy, demands both students and teachers equipped with 21st century skills for depicting the true picture of the transformation of the focus of instruction from the teacher to the student in classrooms by incorporating UDL principles (Dunn, & Pérez 2012).

All students with diverse needs can be benefitted in different general or segregated setups due to the flexible teaching-learning approaches of UDL (CAST, n.d., para. 2).

Teachers and students have to face challenges in general education classroom because of the rigidity in curriculum that is not designed by focusing the individual needs of the students in the classroom (Ralabate, 2011).

Loyola Marymount University, Los Angeles, California presented an agenda having multiple approaches already used in the schools and professional development courses by integrating UDL in digital and instructional paradigms. It stimulates higher education institutions for mutual cooperation in designing different training courses and programs by focusing practicability and feasibility of UDL framework. There is an issue to utilize UDL as a standard elucidation; educational institutions are in dire need of appropriate plan of action (Jiménez, Graf, & Rose, 2007).

The role of higher educational institutions is highly required in equipping pre-service teachers effectively to influence the workplace using adapted learning experiences (Jiménez, 2006).

In teachers' education courses for in-service and pre-service, many aspects are uncovered and need to be studied. Continuing involvement in education of students with diverse needs develops understanding of UDL and social justice. By focusing on the integration of teaching learning process and content courses, consistency and actual implementation can be achieved for more hands-on experiences and teaching expertise to deal with different educational setups (Venkatesh, 2015).

Proficient one hour UDL treatments integrated with adapted Bloom's taxonomy enabled future general education teachers to adapt their planning as well as teaching strategies for students with insignificant learning disabilities. It is needed to uncover the usefulness of adaptations through UDL based interventions (Chen, 2014).

UDL enables more educators to provide equitable and quality education to address the needs of all learners successfully. Both using UDL framework as well as the evaluation of teaching methods are necessary for student's higher achievements (Gawronski, 2014).

UDL principles benefitted all disabled or non-disabled students to practice English language arts. Schools and districts administration are aware of the usefulness of UDL in challenging philosophy of inclusive education. Teachers' readiness to participate is highly significant (Gravel, 2017).

Adaptability and differentiation according to the individuality of all learners is the utmost attribute of UDL in promoting inclusion (King-Sears et al. 2015).

The Higher Education Opportunity Act (2008) defined Universal Design for Learning (UDL) as a "scientifically valid framework for guiding educational practice" changes the circumstances everywhere. Curriculum itself bears the responsibility of change. By flexible and reactive curriculum development and execution, UDL demonstrate the best ways of information delivery, applying learning experiences, ways students can be best involved in learning process. Its implementation fosters all students to be successful achiever in the general education curriculum by having friendly environment.

Early civil rights and special education legislation with the perspective of supporting principles of FAPE and LRE provide basis for UDL (Hitchcock, Meyer, Rose, & Jackson, 2005). In the late 1980s, researchers at the Center for Applied Special Technologies (CAST) considered UDL in the effect of the coordination of 3 theoretical moves: development of architectural designs, education technology and neuroscience.

UDL Principles

Diversity is emphasized by designing inclusive curriculum dynamically far way the barriers to achieve educational attainments for all learners in general education classroom.

3 learning networks are addressed by UDL linked with the notion of curriculum includes goals, materials, methods, and assessment (Hitchcock et al., 2005).

There are three principles of UDL having different learning networks, demonstrate numerous, wide-ranging, and flexible opportunities of representation, expression, and engagement by all aspect of curriculum:

- i. Provision of wide range of modes of representation (recognition network).
- ii. Provide multiple means of action and expression (strategic network).
- iii. Provide multiple means of engagement (affective network).

The four interrelated components of the UDL curriculum require further explanation.

Goals Learning expectations that estimate the students' mastery level for skills, concepts and knowledge linked with state standards. The critical importance of connecting goals in Individualized Education Programs (IEPs) with national standards and classroom prospects have heightened in recent national discussions about Common Core Standards.

Evidence based instructional methods should be flexible and reliable according to the individual needs of students by educators.

Multiple instructional resources or media found in UDL for presenting content and demonstrating learning.

UDL provides the variant options for measuring learning outcomes truthfully, in upholding the relevance of the idea with the elimination of disrupting factors to maintain the assessment validity (Ralabate, 2011).

In 1997, a 10-member group led by Mace drafted the seven principles of universal design. These concepts are being reevaluated after a decade. In June 2007, the original committee will combine with others to solicit opinions from the public. This endeavor will be led by Edward Steinfeld, director of the Idea Center at the University at Buffalo.

“Equitable use” demonstrates the idea of provision of same or equitable opportunities for all learners without any discrimination in inclusive set up to the maximum possible extent.

“Flexibility in Use” means that UDL consider wide range of individual needs, interests and strengths in the selection of methods to reach the outcome.

“Perceptible Information” means it caters the effective way to provide important information to the user by considering sensory limitations in a variety of modes (modes (pictorial, verbal, tactile).

“Tolerance of Errors” UDL assembles the elements to bear the errors by needful attentiveness.

“Low Physical Effort” UDL model can be used by using a neutral physical effort in an efficient and contented way.

UDL allows user to manipulate the resources by providing appropriate size and space for movement.

Objectives of the Study

The objectives of the study were to:

1. Investigate the readiness of prospective and in-service general education teachers for implementation of universal design for learning in general education classrooms for differently able students.
2. Investigate the readiness of male and female general education teachers for implementation of universal design for learning in general education classrooms for differently able students.
3. Investigate the readiness of in-service general education teachers from public and private sector for implementation of universal design for learning in general education classrooms for differently able students.

Questions of the Study

The questions of the study were:

- What is the difference in readiness of prospective and in-service general education teachers for implementation of universal design for learning in general education classrooms for differently able students?
- What is the difference in readiness of male and female general education teachers for implementation of universal design for learning in general education classrooms for differently able students?
- What is the difference in readiness of in-service general education teachers from public and private sector for implementation of universal design for learning in general education classrooms for differently able students?

Methodology

Research Design

Descriptive research design was used to investigate the “Readiness of general education teachers for implementation of universal design for learning in general education classrooms for differently able students”

Population of the Study

The population of the study will be the in-service and prospective general education teachers from different educational institutions of Pakistan.

Sample of the Study

From different educational institutions of Lahore, a sample of 200 general education teachers (80 in service and 120 prospective) was selected through purposive sampling technique. Male and female teachers were included in this project.

Instruments

A questionnaire was developed as research instrument. Questionnaire was comprised of 28 statements with five-point rating scale. First part of questionnaire was comprised of demographic variables i.e. gender, age, knowledge about UDL, educational sector. Second part comprised of 28 items. Questionnaire was used to assess the readiness of general education teachers for implementation of universal design for learning in general education classrooms for differently able students. Questionnaire was piloted on sample of 30 in-service and prospective general education teachers and validated by field experts. Reliability Coefficient was $\alpha = .93$ that was considerable.

Data Collection

Researchers visited universities and schools to collect the data. After getting consent from the university and school administration data was collected from the respondents.

Data Analysis

Data was analyzed by using inferential analysis techniques. Independent sample t -test was applied to find out the difference in readiness of prospective and in-service, male and female general education teachers for implementation of universal design for learning in general education classrooms for differently able students. Independent sample t -test was also applied to find out the difference in readiness of in-service general education teachers from public and private sector for implementation of universal design for learning in general education classrooms for differently able students.

Results

The results of the study are given below.

Table 1

Difference in readiness of prospective and in-service general education teachers for implementation of universal design for learning in general education classrooms for differently able students.

<i>Teachers</i>	<i>N</i>	<i>Mean</i>	<i>S.D</i>	<i>t</i>	<i>Sig.(two tailed)</i>
In-service	80	3.13	.77	-3.28	.001
Prospective	120	3.47	.63		

Table 1. Shows that there is a statistical significant difference ($p < .05$) between readiness of prospective and in-service general education teachers for implementation of universal design for learning in general education classrooms for differently able students. Mean value showed that prospective teachers ($M = 3.47$, $SD = .63$) were more ready than in-service teachers ($M = 3.13$, $SD = .77$) to implement UDL (universal design for learning) in general education classrooms for differently able students.

Table 2

Difference in readiness of male and female general education teachers for implementation of universal design for learning in general education classrooms for differently able students.

<i>Gender</i>	<i>N</i>	<i>Mean</i>	<i>S.D</i>	<i>t</i>	<i>Sig. (two tailed)</i>
Male	80	3.16	.67	-2.93	.004

Female	120	3.45	.71
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Table 2. Shows that there is a statistical significant difference ($p < .05$) between readiness of male and female general education teachers for implementation of universal design for learning in general education classrooms for differently able students. Mean value showed that female teachers ($M = 3.45$, $SD = .71$) were more ready than male teachers ($M = 3.16$, $SD = .67$) to implement UDL (universal design for learning) in general education classrooms for differently able students.

Table 3

Difference in readiness of in-service general education teachers from public and private sector for implementation of universal design for learning in general education classrooms for differently able students.

<i>Sector</i>	<i>N</i>	<i>Mean</i>	<i>S.D</i>	<i>t</i>	<i>Sig. (two tailed)</i>
Public	132	3.39	.692	1.52	.13
Private	68	3.23	.744		

Table 3. Shows that there is no statistical significant difference ($p > .05$) between readiness of public and private general education teachers for implementation of universal design for learning in general education classrooms for differently able students.

Discussion

Prospective teachers were more ready than in-service general education teachers for implementation of universal design for learning in general education classrooms for differently able students. The study of Chen (2014) supported this finding as the UDL training treatments enable teachers to adapt teaching learning process to fulfill the needs. This finding is also parallel to the extent with the study of Gawronski (2014) showed that UDL empowers educators to deal with individual needs of the students and the study of Gravel (2017) depicted teachers’ readiness to participate is highly significant regardless of being prospective or in-service, male or female, and public or private teachers. One study revealed that prospective teachers highly required to be equipped to influence the field in higher education institutions (Jiménez, 2006).

Conclusions

Prospective teachers were more ready than in-service general education teachers for implementation of universal design for learning in general education classrooms for differently able students. Course work of prospective teachers comprised a subject of inclusive education including content of UDL. In-service general education teachers did not know about UDL as compared to prospective general education teachers. However, in-service general education teachers from public and private sector were not ready for implementation of universal design for learning in general education classrooms for differently able students. Female teachers were more ready to implement UDL in their classrooms as compared to male teachers.

Recommendations

On the basis of findings, the following recommendations have been made.

- General school education department should arrange in-service training programs for their teachers to make them ready for implementation of UDL in general education classrooms for differently able students.
- Awareness programs and seminars should be arranged at school level about UDL implementation for in-service and prospective teachers as well.
- Teaching practice of prospective teachers should be arranged at special education schools as well as in general education schools to give them real life experiences about implementation of UDL.
- Complete and comprehensive UDL based courses should be the part of degree for prospective teachers at university level.

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