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Professional Development of Teachers for Technological Enhanced Learning: Experiences of Faculty

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TPD, Professional Development Strategy, Learning Outcome, Professional Development (PD), Coaching and Trainer Education, Online Teaching, Higher Education, Information and Communication Technology (ICT), Technology Enhanced Learning

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Abstract: IT Progress by human beings made them dependent on internet accessing sufficient online skills for teacher's profession. Human progress in technology or ICT helps promotion of online teachers' professional development. There is one solution for teachers to constantly refine their competencies adapting to recent problems with the help of Teachers' Professional Growth. TPD is a nonstop process to reflect, learn and take action for improved teaching practices that reflects a positive influence on learning of learners. Professionalism in distance learning teaching has been defined as a set of blended educational session. Its aim at finding teacher's experience to deliver in workshop, visual exposure and their overall impression of the workshop in finding out the difference of experience among faculty members of diverse nature of faculties in KIU Gilgit. For data collection, the research-oriented questionnaire was distributed among target groups. It was descriptive study and quantitative in nature. For the data analysis statistical techniques mean and Standard Deviation were applied. The data analyses found that majority of the teachers have the positive attitude towards this capacity building workshop on Technological Enhanced Learning. This study found that arts and humanities faculty teachers scored capacity building workshop on Technological Enhanced Learning; as more effective.

Introduction

It is assumed that trainers embrace and practice Technology Enhanced Learning with the help of Information and Communication Technology.

Their guidance should promote digital literacy, and teachers should demonstrate digital competence as a result. To accomplish this, teachers must devise their utility of technology and merging it into university related practices (Rosado & Bélisle, 2006). Teachers need purposeful professional (Ottenbreit-Leftwich, et al, 2010).

The Corona virus Disease 2019 (COVID 19) has had an impact on many sectors of human life. Education is one among the domains affected by the Covid19. Institutional and transitional closure to online mode comes under public spheres. Several educationists who have plan to struggle either to deal with on-the-job or off-the-job trainers with virtual education (Hartshorne et al, 2020). In spite of this, consistent forthcoming educational aims in the Industrial Revolution (IR) 4.0 eras have benefits and drawbacks (Abidah et al, 2020).

Specific growth is necessary for all teachers who intend to refine their instructional quality. Alt (2018) suggests enhancement of ICT activities in professional growth due to constructivism learning theory. There is a dire need to have wide-ranging professional development (PD) program to insert effective strategies to attain the eventual goal. In addition, it must enhance teachers' inspiration to participate in PD. Addressing to a group of teachers' representatives, Richter et al. (2019) suggested that inspiration is the main cause to attend PD. As an outcome of it, there is a need to conduct research on professional development.

Advancement in professional learning outcomes is also significant to refine learning quality. Visionary teachers render positive response to their respective learners at school (Golob, 2012). Professional growth helps the educators to obtain skills like how to impart knowledge to students as learning outcomes by accomplishing their learning targets. Moreover, proficient progress is an outstanding tool to expand teachers' knowledge on subject, pedagogical guts and teaching services (Holloway, 2006). The newly organized networks provide positive learning outcomes such as teacher communities. It is a source of efficacy and confidence to connect teachers in adopting new practices (Darling-Hammond & McLaughlin, 2011).

According to Marcelo (2009) & Mizel (2010) PD it seems crucial for ensuring or making is a genuine input towards students' knowledge. PD refers to educators' efforts to improve their methods and practices during their professional engagements. They believe that TPD relates to a number of formal and informal practices of personal or combined basis that instructors must complete. Professional development can occur in both official and informal settings, like personal reading, comrades' conversation, or discussion among group members (Mizell, 2010).

According to Tanang and Abu (2014), a genuine input towards students' education

involves a devotion to self-perfection. In the global perspective, it is agreed by Policy makers, intellectuals and educationists that TPD (teacher professional development) is the best key to success (Bautista and Oretga-Ruiz, 2015). According to Lisnawati (2019) there are three professional advances for Indonesian teachers comprising of (1) pedagogical, character and societal ability (2) implementation of contemporary syllabus to enhance skills to teach dialectal education (3) production of graduates with 21st-century abilities.

According to Misra (2018) educational growth is critical due to teacher education and professional development as they assist instructors to enhance their competencies and knowledge in such a way that they could educate students better as a good trainer. Whereas promoting growth of teacher's expertise is not a relax commitment. In spite of this, there are numerous drawbacks and obstacles, such as not being tailored to instructors' busy schedules and being unable to adapt to teachers' hectic schedules (Trust & Pektas, 2018).

In this era, the acceptability and accessibility of Internet has established an innovative style for instructors to attain talented progress as science and technology.

Ostaszewski et al. (2011) describe for teachers that teaching is very easy for conducting asynchronous talks without time and location limits based on their aptitude and (Parsons et al., 2019).

Internet familiarity is better than physical learning: Expertise in internet programmes have given instructors with virtual groups to provide prospects for reflection, a forum sharing ideas and immersive computer-generated simulations. Online professional development, as opposed to traditional professional development, makes use of a broader range of resources (Wilson, 2013).

Objective

1. To explain the experience of teachers regarding the content of the workshop.
2. To describe the experience of teachers regarding the Delivery of the workshop.
3. To expound the experience of teachers regarding the Visuals of the workshop.
4. To define the experience of teachers regarding the Questions and Answers of the workshop.
5. To find out the experience of teachers regarding the Overall impression of the workshop.
6. To determine the difference of experience of faculty members of different faculties.

Literature Review

Professional Development for Teachers for technological enhanced learning

By embracing a comprehensive method for the development of the teacher as a qualified expert, teacher professional development attempts to improve teachers and their work. It is a continual process that encourages practice improvement for the entirety of a teacher's career. A teacher's vision and competencies are constantly developed through reflection and education to produce improved teaching practices for optimistic impression on students' learning (Mishra & Koehler, 2006).

While many tutors and learners participating in non-formal higher education is growing, tutors - who are crucial to developing the capacity and caliber of online education - remain uncertain about the efficacy of present wired teaching and learning approaches. Tutors are related to the period and struggle spent on underwired teaching as well as organizations' lack of assistance and inducements (Baran & Correia, 2014).

Higher education instructors contribute in effective enactment of wired learning. Therefore, sponsorship and professional development programs are essential to assist professors related to their fields to involve them in

pedagogical problem-solving and discovery regarding underwired teaching (Kreber & Kanuka, 2013).

TPD, according to Teräs and Kartolu (2017), is experts engaged in new learning events in their specialized sector. Furthermore, Korthagen (2017) considers PTD to be as a well-harmonized and coherent action focused towards self attributes with sense of identity, concepts and capabilities. The TPD program includes the following components: 1) the topic that the trainers' sound knowledge and student's way of seeking knowledge. 2) Authorize pupils to be observed, which aids in the examination of their work (Barab et al., 2003). 3) Allow educators adequate & continual learning spell. 4) Value collaboration, create an engaged knowledge seeker society allowing trainers to contribute collectively. 5) Because brilliant growth is insufficient to meet essential teaching needs and critically offer instructors with opportunities to engage the talented growth of trainers' subject vision to drill in the future (Fishman et al., 2013)

The TPD program includes the following components: 1) the topic that how teacher impart knowledge and how the students earn knowledge. 2) Permit pupils to be observed, which aids in the examination of their effort (Barab et al., 2003). 3) Allow educators adequate continual learning time. 4) Value collaboration, create an engaged knowledge earning community and permit trainers to jointly contribute. 5) Because professional growth is insufficient in meeting essential teaching requirements, it is critical to engage instructors in future in their subject related training for strengthening their professional development (Fishman et al., 2013).

Online Professional Development for Teachers (OTPD)

Online teacher professional progress is developed by Curtis (2018) in line with professional development that does not modify its qualities but rather expands it according to diverse nature of places, ways and approaches. OTPD stimulates

instructors towards ongoing possibilities of Teachers Programme Development for educators to get benefit from public platforms (Ostashewski et al., 2011). Powell and Bodur (2019) described to determine OTPD taking the shape of courses, seminars, and so on. Fishman et al. (2013) explained that it is a learning experience for a teacher that is delivered entirely or partially via the internet.

The following are part of the OTPD project: Specialized growth must allow appropriate time for reflection and digesting knowledge. Review of literature on TL & PD require long-term nonstop professional growth. Anticipated time for activities related to professional growth is significant in two-fold. For starters, expected long activities permit for in-depth discussion of the subject. Second, activities that extend the time encouraging trainers to explore novel classroom techniques and receive response (King, 2002). Furthermore, imparting teaching knowledge to instructors may enhance their sense of self-efficacy. This training consists of two parts: theoretical knowledge and practical research training, and teaching strategy training.

Online teacher professional development, according to Qian et al. (2018), emphasize on the related resource material where learners absorb professional growth of instructors to exercise applicable theories. Furthermore, based on teaching growth and requirements, it gives instructors direction like educating consultants in instructing teachers on professional information and methodological management (Bates & Morgan, 2018; Ma, Xin, & Du, 2018).

In addition, OTPD must encourage practice of teachers' reflection that is beneficial to the performance of students. Reflection can be used to assist instructors understand and improve their interactions with learners, allowing them to become professionals who can foster student development in the classroom. Educator learning must not only focus to expand on information related to coaching approaches but also on information related to mutable application

manner to analyze the classroom situations. Reflect on and enhance your imparting knowledge delivering exercise on a regular basis (Rienties et al., 2013).

Furthermore, instructors should be given online inter action with community that serves as a durable long-standing private social communication. Instructors communicate, exchange, and construct an overlapping knowledge base using many forms of technology. Its goal is to extend long-lasting aid practicing teachers' professional while breaking down countrywide, cultural ethnicity with timeframe etc barriers. It could be undertaken at any time with any location (Bustamante, 2020; Desimone & Pak, 2016). The following are the primary benefits of online TPD: The OTPD programme (s) is appropriately suitable and adaptable, permitting instructors to alter their growth and adapt schedule of their teachers, as well as run after looking for knowledge is an extra with regard to their attractions and requirements which include available properties. (b) prepares trainers to acquaint with novel thoughts, nurtures teachers' capability to reflect on previous experiences, think deeply, and collaborate; and (c) promotes the development of teachers' beliefs and confidence, as well as the improvement of teachers' competencies to impart knowledge (Bennison et al., 2020). (d) is synchronous that is to know existence in actual period, asynchronous, meaning that trainers learn at their own period, or both synchronous and asynchronous at the same spell (Terrazas-Arella es et al., 2019).

How does teacher professional development work?

- The effect of instructors on students: According to research in education, teachers' classroom behaviors account for a significant portion of the variance in student accomplishment (Creemers & Kyriakides, 2013). Therefore, efficient teacher PD can have a good effect on

practices of trainers and significantly enhance learner outcomes.

- Trainers as learners themselves: In a professional learning setting, instructors' competence can also be enhanced through formative feedback, mirroring the social constructivism education methodologies (Vygotsky, 1978) that trainers utilize their own learners.

Benefits that teacher PD offer

Better learner outcomes: Numerous studies have shown how important teachers are to ensuring positive outcomes for students (Creemers and Kyriakides, 2013; Hattie 2012). Learner attainment is significantly impacted by teacher professional development that is specifically aimed at enhancing student outcomes (Cordingley et al., 2015). Therefore, learning achievement chances increase as a result of improving teacher's practice through efficient professional development.

Methodology

This study was descriptive and quantitative in nature.

Instrument

A close ended questionnaire was developed for the research. It was a self-developed questionnaire.

Data Collection

Data were collected from faculty members of all 4 faculties in KIU, i.e. faculty of Arts & Humanities, Faculty of Social Sciences, Faculty of Natural Sciences & Faculty of Life Sciences. All respondents attended a 4 days training workshop comprised of 5 modules, arranged by KIU.

Data analysis techniques

Data were collected and analyzed by calculating mean and standard deviation for each statement.

Data Analysis and Interpretation

Table 1

Descriptive statistics for capacity building workshop on blended learning.

Variables	Minimum	Max	Mean	Std. Deviation
Content of the workshop	2	5	4.01	.712
Delivery	1	5	3.92	.749
Visual	1	5	4.03	.863
Question and answer	0	5	4.07	.955
Overall impression	1.50	5.00	4.0250	.80308

Table 1 shows the maximum score, minimum score, mean and standard deviation of the statements. Findings shows that content of the workshop (Min=2, Maximum=2, Mean=4.01 and standard deviation=.712), Delivery (Min=1, Maximum=5, Mean=3.92 and SD =.749), Visual (Min = 1, Max = 5, Mean = 4.03 and SD = 863),

Question and answer (Min = 0, Maximum = 5, Mean = 4.07 and SD = .955) and overall impression (Min = 1.50, Maximum = 5.00, Mean = 4.0250 and standard deviation = .80308). From these values researcher found that question and answer session is more effective.

Table 2*Comparative analysis of mean scores of various faculty members about the quality of training workshop*

Variables	Arts and Humanities (M)	Social Sciences (M)	Life Sciences (M)
Content of the workshop	4.11	3.97	3.77
Delivery	3.98	3.84	3.64
Visual	4.15	3.83	3.83
Question and answer	4.32	3.97	3.93
Overall impression	4.0000	3.9750	3.7750

Table 2 shows that Arts and humanities faculty teachers scored higher on capacity building workshop on blended learning; content of the

workshop (Mean = 4.11), Delivery (Mean = 3.98), visual (Mean = 4.15), Question and answer (Mean = 4.32) and Overall impression (Mean = 4.0000).

Table 3*Description of group of departments = Arts and Humanities*

Variables	Minimum	Max	Mean	Std. Deviation
Content of the workshop	3	5	4.11	.641
Delivery	3	5	3.98	.614
Visual	2	5	4.15	.759
Question and answer	1	5	4.32	.946
Overall impression	2.00	5.00	4.0000	.79472

Table 3 shows the maximum score, minimum score, mean and standard deviation of Arts and Humanities department. Findings shows that Arts and humanities faculty teachers scored on the capacity building workshop on blended learning; content of the workshop (Min=3, Maximum=5, Mean=4.11 and standard deviation=.614) , Delivery (Min=3, Max = 5,

Mean=3.98 and SD =.614), Visual (Min=2, Maximum=5, Mean=4.15 and standard deviation = .759), Question and answer (Min=1, Max =5, Mean=4.32 and SD = .946) and overall impression (Min=2.00, Maximum=5.00, Mean=4.0000 and standard deviation=.79472). From these values researcher found that question and answer session is more effective.

Table 4*Description of group of departments = Social Sciences*

Variables	Minimum	Max	Mean	Std. Deviation
Content of the workshop	2	5	3.97	.769
Delivery	2	5	3.84	.817
Visual	1	5	3.83	1.075
Question and answer	2	5	3.97	.898
Overall impression	2.00	5.00	3.9750	.88071

Table 4 shows the maximum score, minimum score, mean and standard deviation of the group

of departments (social sciences). Findings shows that Social Sciences faculty teachers scored on

the capacity building workshop on blended learning; the content of the workshop (Min = 2, Max = 5, Mean = 3.97 and SD = .769), Delivery (Min = 2, Max = 5, Mean = 3.84 and SD = .817), Visual (Min=1, Max = 5, Mean=3.83 and SD =.1075), Question and answer (Min=2, Max = 5,

Mean = 3.97 SD = .898) and overall impression (Min=2.00, Max = 5.00, Mean = 3.9750 and SD =.88701). From these values researcher found that question and answer session is more effective.

Table 5

Description of group of departments = Life Sciences

Variables	Minimum	Max	Mean	Std. Deviation
Content of the workshop	2	5	3.77	.803
Delivery	1	5	3.64	.930
Visual	2	5	3.83	.972
Question and answer	1	5	3.93	1.001
Overall impression	1.50	5.00	3.7750	.91010

Table 5 shows the maximum score, minimum score, mean and standard deviation of Life Sciences department. Findings shows that Life Sciences faculty teachers scored on the capacity building workshop on blended learning; the content of the workshop (Min = 2, Max = 5, Mean = 3.77 and SD = .803), Delivery (Min = 1, Max = 5, Mean = 3.64 and SD = .930), Visual (Min = 2, Max = 5, Mean = 3.83 and SD = .972), Question and answer (Min = 1, Max = 5, Mean = 3.93 and standard deviation =.1.001) and overall impression (Min=1.50, Max = 5.00, Mean = 3.7750 and SD = .91010). From these values researcher found that question and answer session is more effective.

Visual (Mean=4.15), Question and answer (Mean=4.32) and overall impression (Mean=4.0000).

Social Sciences faculty teachers scored on the capacity building workshop on blended learning; the content of the workshop (Mean=3.97, Delivery (Mean=3.84), Visual (Mean=3.83), Question and answer (Mean=3.97) and overall impression (Mean=3.9750).

Life Sciences faculty teachers scored on the capacity building workshop on blended learning; the content of the workshop (Mean=3.77), Delivery (Mean=3.64), Visual (Mean=3.83), Question and answer (Mean=3.93) and overall impression (Mean=3.7750).

Findings

Majority of the teachers have the positive attitude towards this workshop capacity building workshop on blended learning. Findings shows the mean of the content of the workshop (Mean=4.01), Delivery (Mean=3.92), Visual, (Mean=4.03), Question and answer (Mean=4.07) and overall impression (Mean=4.0250).

Findings show that arts and humanities faculty teachers scored on the capacity building workshop of blended learning; content of the workshop (Mean=4.11), Delivery (Mean=3.98),

Discussions

This study found that Arts and humanities faculty teachers scored on higher on capacity building workshop on blended learning; majority of the students agree that the content of the workshop was up to mark, the resource persons processed appropriate level of background for the content, the content showed coherent pattern of organization, content presented was appropriate for audience, presentation style was convincing, resource persons succeeded in not theoretically overburdening the participants, ideas and

concepts were clarified by Resource Persons, There was an appropriate amount of content per slide, Fonts Size used was easily readable, diagrams used were appropriate, Choice of colors used in slides were appropriate, resource persons addressed /responded to all, they appeared open and confident during Q&A and the overall impression of the workshop was impressive. Overall, all the faculty teachers have positive attitude towards this workshop.

There has been a great deal of investigation done on the talented growth of online trainers. (Dede et al. (2009) for example, investigated the main domains of particular growth for virtual trainers to securitize present study on OTPD. It helps trainers to sensitize novel thoughts, cultivates teachers' competencies to reflect on previous experiences, ponder intensely and collaborate. Furthermore, it is beneficial to enhance teachers' opinions and self-assurance, as well as cultivating trainers' imparting

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knowledge capabilities (Philipsen et al., 2019). They helped learners to develop self-value and strengths. Teachers take part in systematic investigation of teaching to refine performance of teachers, it improves the change of students' logical knowledge notions.

Recommendations

- Create, implement, assess, and institutionalize standards for teacher professional development.
- Universities can create chances for professional development that encourage teacher collaboration.
- Provide continual support to teachers.
- Universities can arrange trainings, workshops and seminars for the teacher's professional development.

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