Exploring the Prospects of Accelerated Learning in Future Professional Development

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Abstract

Objective: *This study aimed to reveal faculty members' impressions of the effectiveness of a sustainable professional development model derived from accelerated learning principles.*

Research design: *This study used descriptive and analytical approaches to collect data through a questionnaire directed to a study sample of 55 members from the Faculty of Education at a private university in Pakistan. In this study, we used evocative statistics to describe frequency ratio, mean, and standard deviations. Cronbach's alpha coefficient, Pearson correlation coefficient, Independent-Samples T-Test, and One-Way Analysis of Variance ANOVA were used.*

Results: *The study results indicate a consensus about the effectiveness of the model applied at the institutional and individual levels, and there are no statistically significant differences in impression due to gender, age, work experience, or academic degree.*

Conclusion: *Examining the applied model for professional development, which is based on accelerated learning principles, showed that investing in information and communication technology was effective within the study's limits. However, as the effectiveness of any application is related to*

its context; researchers should conduct more research to evaluate all dimensions of the professional development model in different contexts and enrich the educational research library with more professional development studies and models for applying accelerated learning principles.

Keywords: Accelerated learning, adult education; sustainable professional development, brain-based learning, faculty development

Introduction

Professional Development

Professional development in universities is a fundamental guarantee for high-quality educational practices. The most important area for this is teaching, which is vital for achieving professional standards and accreditation (Friedman & Phillips, 2004).

On top of planning for the future of education, the university faculty members' professional development provides support with the expertise and skills necessary to fulfil the responsibilities and roles needed to face these transformations (Abdelazim & Abdel Fattah, 2017; Celuch, Bourdeau, Khayum, & Townsend, 2017). Within this framework, many international organizations such as the Regional Center of Quality and Excellence in Education (RCQE), UNESCO, and planners have collaborated to create professional development plans in education, hold forums, and establish global centres and associations to create models for professional development directed at future problems.

The notion of professional development has evolved according to the evolution of its use and the development of the visions from which the use emerged. It is linked with the development condition of the times and the necessity to uphold harmony. Its oldest use in the sense of in-service training appeared in direct reference to professional development as a process related to the needs of the educational institution, and not the teacher, in terms of training its members to carry out their roles to achieve the goals of the institution through designing a set of specific programs and activities (Bolam et al., 2005; Guskey, 2000).

Shulman and Shulman (2004) presented a study related to the professional development of science and mathematics teachers; its concept is to qualify faculty members and teachers to be ready to establish their visions for their professions, be desirous of professional growth, gain knowledge and become skillful in its performance, and be continuously active members in their professional communities as they develop

their practices in their professional communities through observation, professional discussion, experimentation, and research. Evans (2014) added a new dimension to professional development: a process that enhances the individuals' professionalism and is characterized by a degree of sustainability. The current study paid attention to both Schulman and Evans's concept of sustainable professional development in choosing a model consistent with that concept to investigate the effectiveness of a sustainable professional development model.

Features of the Desired Professional Development Models

Many voices have called for a reassessment of professional development models and practices and an examination of their effectiveness (Gallego et al., 2005; Gravani, 2007; Hodkinson & Hodkinson, 2005; Mazmanian, 2005; McRae, Ainsworth, Groves, Rowland, & Zbar, 2001; McWilliam, 2002) In this era, several studies have also discussed ideas and conditions for developing these models (Abdelazim & Abdel Fattah, 2017; Fuller, 2001; Lee & Horsfall, 2010; Nicholson, 2018; RCQE, 2019; Schornack, 2016; UNESCO, 2020; Webster-Wright, 2009). Table 1 clarifies the

most important criticisms and features to consider for models of the desired professional development of faculty members.

Accelerated Learning

A global trend of applying a new model called the Accelerated Learning Model in Education and Training in educational and training institutions has emerged; which is based on the requirements of the times, the principles of adult education, and the principles of brain-based learning (Yaniawati & Kartasasmita, 2017). Peterson (2019) summarized a nuanced concept of this model that focuses on speed and efficiency in professional development by presenting it as a faster acquisition of skills and knowledge and an increase in performance on the job while retaining better learning. Meier (2008) presented it as a 'process of creation and not consumption and described it as: 'the latest findings of modern research in the world of training'. Based on the latest results of the study of the brain and how learning occurs through exploiting the senses, employing simple technological means ensures both the flexibility to adapt to the changing learning context and the effective participation of the learner in a practical and enjoyable experience that delivers the best results.

Globally, learning and teacher training centres have applied this model, such as the Dave Meyer Center for Accelerated Learning, the International Alliance for Learning in the USA, and the Dubai Accelerated Center for Accelerated Learning (Al-Mallah, 2015; Learning Center, 2012). The model's ideas support the provision of remote accelerated solutions to confront disasters such as the coronavirus (COVID-19) in education and professional development for teachers (UNESCO, 2020).

Table 1. Features of the desired professional development programs versus traditional programs.

| Point of comparison	Traditional professional development models (TPD)	Desired professional development models (DPD)
Methodology and identity	• Lack clarification of the methodology and the theoretical identity	• Rely on educational theories • Promote adult learning, and accelerated learning theories
Continuing and sustainability	• Institute unsustainable training programs	• Effective professional development is based on continuing professional learning • Aim to keep up with the sustainability of the cognitive acceleration of the era.
Flexibility and compatibility with context	• Include the departure in all details (goals, means, and methods) from sufficient flexibility to keep pace with global, regional, and local developments and to face the repercussions of disasters and crises on education • Does not offer solutions to the challenges institutions face that arise from the divergence of the places of the target audience's places for training or increase their numbers.	• Have a flexible and efficient design to suit the surrounding conditions on all levels (global, regional, local, institutional, and individual) • Can work under any circumstances, such as crises, disasters, and epidemics
Participation and Interaction	• Many traditional professional development practices still focus on delivering content rather than enhancing learning • Include indoctrinating, restrictive, non-interactive methods that lack diversity, opportunities for self-experimentation, and free opportunities for creativity	• Focus on participation, interaction, and respect for the privacy of the individual's developmental needs and different learning styles. • Provide alternatives to offer opportunities for self-selection and create a special experience and path of private development
Costs	• Have high costs compared to the return	• Are economic while maintaining effectiveness
Evaluation	• Have weak training evaluation methods.	• Offer a multiplicity of forms, sources, and levels of evaluation for all stages of professional development and pay attention to measuring impact to develop models that ensure the sustainability of professional development
Technology use	• Limit technology use	• Invest in information and communication technologies in a way that transforms professional development into an intelligent pattern consistent with the requirements of the knowledge revolution
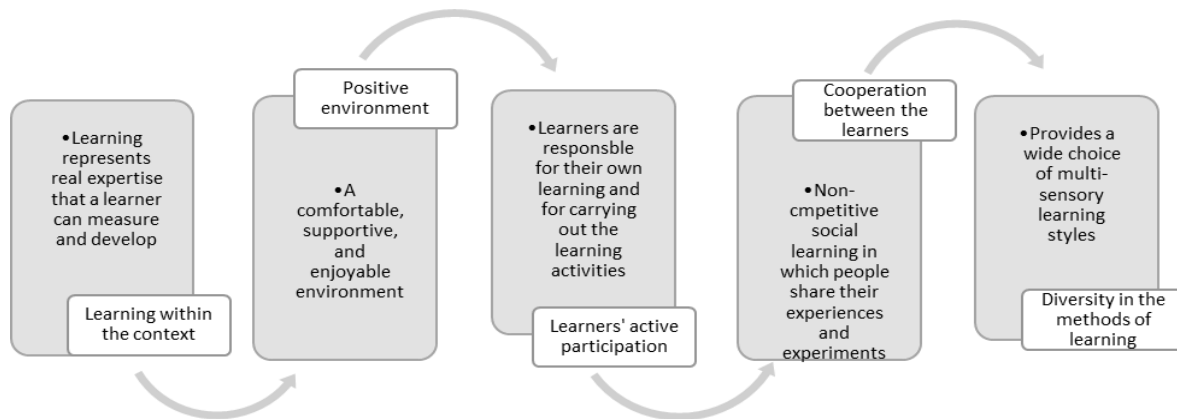
Figure 1. Meyer (2008) principles for accelerated learning

Globally, centers for learning and teacher training have applied this model, such as the Dave Meyer Center for Accelerated Learning, the International Alliance for Learning in the United States of America, and the Dubai Accelerated Center for Accelerated Learning (Al-Mallah, 2015; Learning Center, 2012). The model's ideas support the provision of remote accelerated solutions to confront disasters such as the coronavirus (COVID-19) in education and professional development for teachers (UNESCO, 2020).

Meyer (2008) explained the basic principles of accelerated learning within the contexts of a positive environment, active participation, cooperation, and diversity, as Figure 1 summarizes so that the principles are not reduced from a philosophy of learning to fun tricks and games. Analyzing and studying these principles shows that they are consistent with the desired characteristics of

professional development: theory-based, flexible, sustainable, quick, promote economic and technological investment as defined by the literature. Table 1 offers a further explanation of these characteristics.

Criticisms Levelled Against the Accelerated Learning Model

The literature has clarified some criticisms directed at the accelerated learning model that include a preoccupation with the principles of the model and the content of meaningful learning in the formalities and techniques of the model's presentation, the use of modern technological methods that are empty of content, and an exaggerated expectation of the model's effectiveness before efficacy is proven through experiment. These are cautious criticisms to ensure the methodology of the application, and these criticisms were reflected in the

objectives of the current study. Some authors showed hesitation to critically evaluate.

The requirements of the new model are in fear of doing so would jeopardize their status, career, and academic stability. They justified this based on the argument that the quality of the content application is related to increasing the communication time between the teacher, the learner, and the content, which is a characteristic not found in the accelerated learning model, and claimed that speeding up the preparation time may lead to inconsistent and shallow learning content (Lee & Horsfall, 2010; Wlodkowski, 2003).

A group of brain researchers responded to criticisms that emphasize the link between levels of learning and application and that support the social relationships provided by an accelerated learning environment (Calvert et al., 2023). Rather than emphasizing the model's link to the duration of contact with the teacher, as in traditional programs, the brain researchers emphasized influencing factors in the quality of learning that are related to the learner's abilities and motivations (Ratey, 2001; Wlodkowski, 2003).

Research Problem

Previous studies documented traditional professional development

programs (Cevero, 2001; Gallego et al., 2005; Gravani, 2007; Hodkinson & Hodkinson, 2005; Mazmanian, 2005; McRae et al., 2001; McWilliam, 2002). Such studies emphasized the importance of how institutions should play their role in setting up modern models for professional development that overcome the shortcomings of the traditional models (Abdelazim & Abdel Fattah, 2017; Fuller, 2001; Lee & Horsfall, 2010; Nicholson et al., 2018; RCQE, 2019; Schornack, 2016; UNESCO, 2020), and indicated the possibility of achieving accelerated learning with flexibility, sustainability, speed, and economic and technological investment (Al-Mallah, 2015; Meier, 2008; Nicholson et al., 2018; Servoss et al., 2017; Wlodkowski, 2003). To this end, the current study sought to investigate the effectiveness of a model for a professional development program for faculty members at a private university of Pakistan based on accelerated learning principles, from the viewpoint of the faculty members. The following questions identify the study problem:

RQ1: Is the professional development model based on accelerated learning principles effective at the institutional or faculty member level from their

viewpoint?

RQ2: Are there statistically significant differences among the opinions of the study sample due to variables such as age, gender, job experience, and academic rank?

Methodology

The current study used a quasi-experimental method & description and analytical approach, whereby a model for professional development based on the principles of accelerated learning was prepared and applied to develop the staff's teaching skills at a private university of Pakistan.

After the management approved the study's design and after reviewing the literature related to accelerated learning, which relies heavily on the work of Meyer (2008). The researchers identified the objectives of the model, set an implementation plan Table 2, and prepared focused learning materials for professional development in multiple forms Table 2. Finally, the researchers presented the model to a group of educational expert referees with enough experience in the field of teaching and training to express their views on the

model's alignment with accelerated learning principles, the appropriateness of the learning materials to the training themes and objectives, the scientific accuracy of the content. Some components of the program were modified due to the recommendations made by these experts.

The researchers designed a questionnaire to survey faculty members' opinions, reveal their impressions of the model's effectiveness at the individual and institutional levels, and calculate its validity and reliability. After applying for the professional development program, the questionnaire was distributed informally via e-mail to the study population; a two-week period was set for receiving responses.

Study Population

The study population included all faculty members from the university, which consisted of 166 faculty members. The researchers tried to poll the opinions of all members, but only 55 faculty members of various ranks and academic experience levels (professor, associate professor, assistant professor, lecturer) responded. As Table 3 shows, the respondents also varied in work experience, sex, and age.

Table 2. Designing a professional development model in the study according to the principles of

accelerated learning.

Program's Aims:	Program' axes:
(General Objective):	
• Provide a model for developing professional that avoid the deficiencies of traditional programs	• Teaching design and planning
(Interim Objectives):	
• Provide faculty members with the knowledge and skills needed to design and plan teaching	• Teaching strategies
• Acquire focused knowledge, experiments, and application models necessary to develop faculty members' implementation of teaching	• Teaching evaluation
• Expose faculty members to recent evaluation practices	
• Procedures for implementing models (technical and administrative):	• Learning Alternatives in the Program
• Preparation (timed plan–learning materials design–adjudication)	• Focused learning materials
• Applying the materials, which includes:	
• Initiation and show stage	• Infographics
• Training	
• Performance	• Video library
• Evaluation	
Implementation means,	• Online books
• Text Messages	
• WhatsApp Messages	• Online platform links supporting the expansions
• Twitter Account	
• E-mail	
• Website	

Application

Mayer (2008) emphasized: 'Applying the accelerated learning model means creating structural, not cosmetic, changes so that the trainees transform from a container that the trainer fills into a fire waiting to be ignited.' The present study applied the following stages to realize this philosophy:

Initiation and Show Stage

The researchers gave a brief presentation on the importance of the program, its objectives, and the expected benefit to arouse the trainees' curiosity and create a positive environment. The researchers presented the alternatives for each topic in the learning materials to the faculty members through different means of communication, including a special icon on

the university's webpage, e-mail, WhatsApp, and Twitter.

Training

Training is the beginning of the real learning process; the researchers asked the participating faculty members to experiment with what they learned from the circulated learning materials about integrating theoretical knowledge with real experience and personal practice, whereby each group (department) set two sessions for each learning topic:

The first session was designed to debate and exchange points of view about what had been proposed in the learning materials and to encourage participants to enrich the scope of available alternatives by summarizing and exchanging learning materials related to their experiments through a special icon on the university's webpage dedicated a program titled 'Share knowledge.'

The Second session had some faculty members in each academic department practically apply the learning materials in the presence of their peers and researchers as a simulation process. Peers discussed the trainees' performance and gave them feedback. After that, each trainee prepared a report according to the special form In writing their reports, the trainees reflect on

their impressions of the experience (self-reflection).

At this stage, the researchers were keen to provide multiple opportunities for communication and discussion in the experimental application critique meetings intended to facilitate engagement in deeper learning, activate critical thinking, promote self-directed learning, and encourage an academic mindset.

Table 3. Frequencies and percentages of demographic variables

Variable	Response	Repetition	Percentage
Gender	Male	8	14.5%
	Female	47	85.5%
	Total	55	100.0%
Age	Under 35 years old	4	7.3%
	35–44 years old	34	61.8%
	45–54 years old	17	30.9%
	Total	55	100.0%
Job Experience	Less than 5 years	4	7.3%
	5–10 years	31	56.4%
	11–15 years old	12	21.8%
	16 years and over	8	14.5%
	Total	55	100.0%
Academic Rank	Lecturer	11	20.0%
	Assistant Professor	36	65.5%
	Co-Professor	8	14.5%
	Total	55	100.0%

Performance

The faculty members circulated their experiences and adopted their application more broadly during their real teaching practices, consolidating strengths and trying to overcome weaknesses and obstacles that appeared during the experimentation process, whether by reading further on the subject of learning or referring to researchers.

At this stage, the faculty members took what was learned in one situation (training stage) and applied it to another.

Evaluation

Researchers determined performance evaluation through the questionnaire, which was designed to survey the opinions of the participating faculty members and reveal their impressions about the effectiveness of the model.

Statistical Methods

The study used the following descriptive statistics to describe frequencies, ratios, mean, and standard deviation.

(1) Cronbach's alpha coefficient was used to measure the statistical stability of the questionnaire.

(2) The Pearson correlation coefficient was used to confirm the validity and internal consistency of the questionnaire.

(3) The Independent-Samples T-Test was used to indicate the differences between the opinions of the study sample due to variables like gender.

(4) One Way Analysis of Variance ANOVA was used to indicate the differences between the opinions of the study sample due to variables like age, job experience, and academic rank.

Data Analyses

Validity and Reliability of the Questionnaire

A group of specialists in the field reviewed the questionnaire's focus validity. If they did not reach 75% of agreement on an item, that item was deleted. The final questionnaire contained 21 items.

After confirming the validity of the study tool, the Pearson correlation coefficient was calculated to discover its internal validity, as the correlation coefficient between the degree of each statement was calculated with the total score of its axis. Table 4 presents the resulting data.

Table 4 shows that all the correlation coefficients are statistically significant, meaning that all items are related to the sub-axes to which they belong, that the sub-axes are related to the axis, and that the axis is

related to the questionnaire; none of these can be omitted.

Statistical Stability of the Questionnaire

According to Cronbach's alpha method, Table 5 shows the statistical stability coefficients.

Table 5 clearly illustrates that the stability coefficients for the axes and the complete questionnaire range between 0.930 and 0.899, which indicates that the study tool (the questionnaire) is characterized by great stability for achieving this study's aims. The statistical analysis is acceptable.

Table 4. Correlation coefficients between the degrees of each phase with the total degree of the axis to which the phase belongs

Axis	Extent to which the model is effective in developing the capabilities of faculty members				
Sub axis	**Institution**		**Faculty member**		
Phrase No.	**Phrase relates to the sub-axis**	**Probability value**	**Phrase No.**	**Phrase relates to the sub-axis**	**Probability Value**
1	.604**	.000	11	.634**	.000
2	.601**	.000	12	.720**	.000
3	.417*	.014	13	.731**	.000
4	.619**	.000	14	.772**	.000
5	.720**	.000	15	.773**	.000
6	.752**	.000	16	.708**	.000
7	.776**	.000	17	.671**	.000
8	.761**	.000	18	.723**	.000
9	.732**	.000	19	.714**	.000
10	.743**	.000	20	.767**	.000
	-	-	21	.576**	.001
The sub-axis relates to the axis as a whole	.926**	.000	.946**		.000
Correlation of the axis with the whole questionnaire				.917**	.000

(**) The correlation is statistically significant at 0.01 or less.
(*) The correlation is statistically significant at 0.05 or less.

Table 5. Statistical stability coefficients according to the Cronbach's alpha method

Axes	Item No.	Cronbach's Alpha
The questionnaire as a whole (the model's effectiveness)	21	0.930
First sub-axis: Institutional	10	0.862
Second sub-axis: Faculty member	11	0.899

To determine the length of the five scale cells (the lower and upper limits), the researchers calculated the range (5 - 1 = 4) and then divided by the number of scale cells to obtain the correct cell length (4 / 5 = 0.80). Next, they added this value to the lowest value in the scale or the beginning of the scale (which each equals one) to determine the upper limit of the cell. Table 6 displays the lengths of the cells.

Table 6. Cell length to interpret phase averages

Coding	Cell length	Approval score
1	1.00–1.79	Very weak
2	1.80–2.59	Week
3	2.60–3.39	Medium
4	3.40–4.19	High
5	4.20–5.00	Very high

Results

To answer RQ1, the researchers calculated the arithmetic mean and standard deviation of the questionnaire axes and their expressions, as Tables 7, 8, and 9 show.

Table 7. Arithmetic mean and standard deviation for each of the sub-axes and for the axis as a whole

S	Sub-axes	Arithmetic mean	Standard deviation	Order	Interpretation
1	First sub-axis: Effectiveness of the program at the level of institution	4.23	0.48	2	Very High
2	Second sub-axis: Effectiveness of the program at the faculty level	4.24	0.54	1	Very High
	Axis as a whole (all sub-axes)	4.23	0.49	-	Very High

Table 8. Arithmetic mean, standard deviation, and order for each of the sub-axes items (institution)

No	Item	Mean	Standard Deviation	Order	Interpretation
3	Saves money and time	4.38	0.73	1	Very High
9	Consistent with the developments of the time	4.33	0.64	2	Very High
10	Helps overcome the problem of the continuity of traditional training	4.33	0.75	3	Very High
2	Creates a more flexible learning climate	4.31	0.63	4	Very High
5	Speeds up the training process	4.31	0.63	5	Very High
6	Helps overcome the lack of qualified trainers	4.27	0.71	6	Very High

No	Item	Mean	Standard Deviation	Order	Interpretation
4	Increases the chances of practical application within the organization	4.18	0.70	7	High
7	Establishes effective learning communities	4.15	0.70	8	High
1	Creates opportunities for transformation into a digital society	4.04	0.67	9	High
21	Raises trainees' motivation to seek knowledge	4.02	0.65	10	High

Table 9. Arithmetic mean, standard deviation, and order for each of the sub-axes items (Faculty Members).

No	Item	Mean	Standard Deviation	Order	Interpretation
19	Supports the faculty members' self-satisfaction	4.44	0.60	1	Very High
13	Encourages faculty member to reflect on knowledge	4.31	0.69	2	Very High
21	Raises the motivation of the trainee to search for knowledge	4.31	0.72	3	Very High
11	choose the best example of personal experience	4.31	0.72	3	Very High
20	Increases the trainee's sense of pleasure during the learning process	4.29	0.71	5	Very High
18	Achieves effective faculty member participation in the training process	4.27	0.65	6	Very High
17	Increases the chances of retaining the educational material	4.29	0.69	7	Very High
14	Provide the opportunity to refresh information and skills.	4.13	0.75	8	High
16	Increases the chances of choosing the most appropriate style from the available techniques	4.13	0.77	9	High
12	Sparks faculty members' creative imaginations	4.11	0.88	10	High
15	Increases performance level	4.07	0.88	11	High

It is clear from the above tables that:

The general arithmetic means of the s axis reached 4.23 with a standard deviation of 0.49. This average means that the study sample showed a high degree of approval for the second axis. Thus, the effectiveness of the model ranks very high at both the institutional and individual levels. The general arithmetic means of all the expressions of the first sub-axis (institution) reached 4.23 with a standard deviation of 0.48. This average means that the degree of the study sample's approval for this axis is very high. Therefore, the model shows a very high degree of effectiveness at both the institutional and individual levels. The general arithmetic means of all the expressions of the second sub-axis (faculty members) reached 4.24 with a standard deviation of 0.54. This average means that the degree of the study sample's approval for this axis is very high. This suggests that the model has a very high degree of effectiveness regarding the faculty members' development of abilities at the individual level. The study used the Independent Samples T-Test and One Way ANOVA to answer RQ2, as Tables 10 and 11 show. Table 10 illustrates that there are no statistically significant differences at 0.05 or less between the opinions of the study sample on the extent of the model's effectiveness in developing the capabilities of faculty members due to gender, while Table 11 shows that there are no statistically significant differences at 0.05 or less between the opinions of a sample member on the extent of the effectiveness of the model in developing the capabilities of faculty members due to age, job experience, or academic rank.

Discussion

The results show a consensus in the study sample of faculty members regarding the effectiveness of the program as a model for professional development at both the institutional and individual levels, as Table 7 shows. Table 8 illustrates several reasons for the model's effectiveness from the faculty members' viewpoint. Reasons at the institutional level include saving time and money, increasing effort and consistency, gaining the ability to overcome the problem of continuity in traditional training, achieving a more flexible climate, the possibility of accelerating the training process, using the model to overcome the lack of qualified trainers, providing practical application opportunities, creating effective learning societies, supporting the transition to a digital society, and increasing the effectiveness of the trainee in search of knowledge.

Table 10. T-test of the two independent samples to find the significance of the differences between the opinions of the study sample attributable to gender

Axis	Category	Number	Average	Standard deviation	T value	Degree of freedom	P-value
Effectiveness of the model in developing the capacity of faculty members	Male	8	3.99	0.38	-1.56	53	0.12
	Female	47	4.28	0.49			

(*) Statistically significant differences at the level of 0.05 or less.

Table 11. Results of the One-Way ANOVA for the significance of the differences between the opinions of the study sample due to age, job experience, and academic rank

Variable	Hub	Source of contrast	Sum of squares	Degrees of freedom	Average of squares	F-Value	P-Value
Age	How effective is the model in developing the capabilities of faculty members?	Between groups	0.11	2	0.06	0.23	0.80
		Within groups	12.69	52	0.24		
		Total	12.80	54			
Job experience	How effective is the model in developing the capabilities of faculty members?	Between groups	0.50	3	0.17	0.68	0.57
		Within groups	12.30	51	0.24		
		Total	12.80	54			
Academic rank	How effective is the model in developing the capabilities of faculty members?	Between groups	0.85	2	0.43	1.85	0.17
		Within groups	11.95	52	0.23		
		Total	12.80	54			

(*) Statistically significant differences at a level of 0.05 or less

Intensification, multiple learning sources, and investment in available electronic learning resources model saved effort, time, and cost, given the opportunity to choose the best educational resources, and contributed to preparing members to keep pace with modern developments and the transition to a digital society. They also helped to overcome many problems of traditional training, such as the weakness of some trainers and the lack of continuous and required training.

The results of Table 9 show the most important factors the sample individuals saw as the reason for the effectiveness of this model at the individual level. These factors include: the model encourages self-reflection, motivates faculty members to search for knowledge, offers the diversity and freedom needed to choose the best learning martial alternative, creates feelings of pleasure during the learning process, elicits the active participation of faculty members, and it provides the opportunity to refresh information and skills.

These results occurred for many reasons: The applied model for professional development, which is based on the principles of accelerated learning (diversity, positivity, freedom, and active participation), awakens the learner's senses, feelings, and experiences, which greatly contributes to activating the two hemispheres of the brain (conscious and unconscious focus) so that the learner becomes active, achieves better learning and learns more quickly.

The training phase in this model was an important step that provided effective learning societies, allowed experimentation in the real world that ended with feedback and discussion between peers, and supported deep learning.

The model considers the faculty members to be adult learners with personal goals who prefer learning in a social environment with peers (Tatum, 2010). Addressing them as such leads to fulfilment, satisfaction, and enjoyment, which creates desire and motivation for the learning process and enables the learners' positive participation (Schornack et al., 2016).

These results follow previous literature results, such as Boisvert, Flemming, and Shah (2017) and Servoss et al. (2017), that demonstrated that accelerated learning programs could contribute to ensuring the development of good quality programs that are flexible, comprehensive, and integrated. Further, it meets the special needs of different adults, such as faculty members and physicians, and overcomes some challenges they face, such as lack of time. The results are

consistent with Lee and Horsfall (2010), which indicated that accelerated learning programs have motivational and social effects from both the students' and faculty's points of view. They also follow Schornack (1996), who emphasized that including a large variety of strategies and tactics in the learning environment makes learning an enjoyable experience and that doing so supports the involvement of all the components of the learner, conscious and subconscious.

It should be noted that the sample members agree on the effectiveness of this model for faculty members, despite their differences in experience, academic degree, age, and gender, as Tables 10 and 11 show. This is because accelerated learning is learning centered on the needs of the learner. It provides various learning opportunities suitable for all experience and knowledge levels. Further, diversifying learning sources and freedom of choice provide each learner with the opportunity to find what fits their own style (Halimah et al., 2023) and individual characteristics, which may be influenced by their gender, age, practical experience, and academic rank. This result is corroborated by studies that showed that groups of students of different sexes, ages, and years of study who studied with

accelerated learning performed better than students who studied using traditional methods (Boisvert et al., 2017; Garet et al., 2001).

Conclusions and Recommendations

The results of the current study indicate that the applied model for professional development based on the principles of accelerated learning showed that foreseeing the future of professional development, so we invite universities to employ the model according to its main principles, and so it suits each university's individual circumstances while bearing in mind that investment in information and communication technology can support application flexibility.

The model for future professional development was applied before the pandemic; however, the college officials later adopted it as one of the most important solutions used to overcome the pandemic's repercussions and provide continuous professional development opportunities. This result enhances the recommendation that the model can be employed in the event of crises and disasters.

According to the recommendations of the Meyer methodology (2008) for the model's application, the administrative

support the college provided in allocating an administrative unit and structure to support its implementation, and the researchers' observation of the great administrative support's impact on the model's effectiveness and success, adopting institutions should emphasize the importance of providing administrative support and the necessary facilities to ensure the achievement and continuity of professional development objectives.

The results of this study confirm the attention given to the dimension of providing opportunities for professional discussions and the exchange of experiences in any adopted professional development model due to the emergence of its effective impact on professional development and its promotion of deep continuous learning.

Examining the applied model for professional development, which is based on accelerated learning principles, showed that investing in information and communication technology was effective within the study's limits. However, as the effectiveness of any application is related to its context, researchers should conduct more research to evaluate all dimensions of the professional development model in different contexts and enrich the educational research library with more professional development studies and

models for applying the principles of accelerated learning.

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