Factor effect to Implements of FLM on Public Vocational Training Centers in Sri Lanka

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Research and Project Report writing

We certify that this Research Report does not incorporate without acknowledgement, any materials previously submitted to the TVEC or anywhere. And to the best of our knowledge and belief, does not contain any material previously published or written by another person, except where due reference is made to it in the text.

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ABSTRACT

Flexible learning mode is introduced by Skills Sector Development Project SSDP with intention of to open opportunities for employees to improve their existing skills levels through up skilling or re skilling with dynamics in global technology in line with the 4th industrial revolution and labor demand in the market which promote to build technology based skills among the workforce in the private sector with the financial grant who is wish to conduct FLM training.

Initially SSDP focus on privet sector as a national requirement same concept can be apply for the public sector also because all technical updates complete by the TVEC disregarding private or public sector training institutes to offer training to obtain certification for employees.

In this research I identified most of the government institutes can be adopt RPL mode training to their institutes. But factor effect to implements of FLM on Public Vocational Training Centers is identify as

- Not included in to government institution action plan
- Lack of awareness on FLM

Main factors of implementing FLM as

- Human Resources
- Facilities

Based on the research findings recommendations were made to start FLM after proper awareness session for all staff in government institute and updating the existing resources up the standard.

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CHAPTER 01 – INTRODUCTION

1.1 Historical Background

Vocational education system in Sri Lanka's new era started from 1883 establishment of Maradana Technical Collage. after that Ceylon - German Technical Training Institute, NAITA, NYSC, VTA. Ocean University, University Collage, Univotec by the National Vocational Qualification system uplift the craft level to the Degree as alternative way to the conventional education system in Sri Lanka.

The Tertiary and Vocational Education Commission was established in 1991 as the apex body in the technical and vocational education and training sector under the provisions of the Tertiary and Vocational Education Act No 20 of 1990. Its primary responsibility is policy formulation, planning, quality assurance, coordination and development of tertiary and vocational education in the country and The amendments introduced in December 1999 to the Tertiary and Vocational Education Act No. 20 of 1990,

As one objective of the Act to be established frame work for vocational qualifications. Therefore TVEC is introducing The Sri Lankan National Vocational Qualifications Framework (NVQSL) has been established to support the efforts in enhancing the development of an internationally Competitive workforce in Sri Lanka. The framework is one of the key elements in unifying Technical and Vocational Education and Training (TVET). There will be national competency standards set in consultation with the industry, national quality standards for teaching and assessment using a competency-based approach, and national certification of learners and workers. The entire system will be internationally benchmarked.

The manual states how national vocational qualifications are established in order to meet Sri Lanka's occupational requirements, how training providers are to prepare courses so that the trainee will meet the industry specified competencies and how assessment and certification will be conducted.

The National Vocational Qualifications of Sri Lanka are based on national competency standards identified by the industry stakeholders. The competency standards include relevant technical and employability competencies. The system awards qualifications at seven.

There are Four Mode introduce by the manual as

- 1. Competence Based Training (CBT)
- 2. Enterprise Based Training (CBT)

3. Recognition of Prior Learning (RPL)

And there are four types of NVQ qualifications.

- a. National Certificate
- b. National Diploma
- c. Record of Achievement
- d. Bachelors' degree

Later 2015 introduce Flexible Learning Mode (FLM) in order to Up skilling and Re Skilling industry employees by offering Record of Achievement (ROI) NVQ Qualification.

1.2 Objectives:

To identify the factors not being conducted FLM courses in government institutes as at 2023 there is no any NVQ certificate issued from Government Institutes therefore for the betterment of employees in the industry even they have prequalification or unskilled/non paper qualification to certified with industrial technology updates,

- Qualified/Skilled employee for reskilling and up skilling
- Unskilled employee- Skilled employee with NVQ qualification.

1.3 Methodology:

In this research I used applied method as research focuses on analyzing existing factors about the phenomenon in order to generate objective research outcomes. And used exploratory – (Descriptive) methodology to identify the factors affecting to implementation of the Flexible learning mode therefore not applied hypothesis test and the conceptual framework.

Research was carried out as a quantitative study. Further, this study was designed as a survey study.

Questionnaire Development

The data used in this study consist of questionnaire and data obtained form qualitative and quantitative method as responses from Center Manager, Principal in the Institute.

Sample Size

Sample size was 40 one representing all district and plus 16 randomly in each district, determine based on all government registered institute under the TVEC and Selected institutes (Technical

Collage) under the Department of Technical Educational Training and Vocational Training Authority Institute from the TVEC institute registration dashboard as at 2022. (Figure -01)

Data Collection

The data collection was administered through structured questionnaire survey: conducted surveys sending the structured questionnaire to Center Manager, Principal in the Institute., and then followed by telephone calls.

These two institutes used as population are establish as Department (DTET) and Authorities (VTA).Therefore each institute has two different administration mechanism and located in each district of the country, were selected to collect data through the structured questionnaire. 40 questionnaires were sent through email and a total of 30 usable responses were selected.

- Primary Data Collected data by Questionnaire survey
- Population All Institute
- Sample Government Institute (DTET and VTA) 30 institute

Methods of Data Analysis

Descriptive methods have been carried out to get an overall idea about the data (Tabulation and graphical methods). Furthermore, the Chi-square test has been applied to see the association between variables (Implementation of FLM vs Awareness of FLM, inclusion of implementing FLM into the action plan, Facilities for implementing FLM, and instructors' willingness to implement FLM). MS Excel and SPSS 26 will be used as the statistical data analysis packages.

1.4 Study Limitations

Due to resource and time and financial constraints research concentrated only to 25 districts based on institutes head.

CHAPTER 02 – LITERATURE SURVEY

As per the literature survey on my research of FLM I could not find any similar research on same but there are many definition and mode for Flexible learning mode (FLM) but in this mode practice in Sri Lanka under supervision and regulation by TVEC is somewhat differ from other Country as

- Definition
- Usage
- Implementation

When compare to the Sri Lankan system FLM concept used for specialty in Vocational Education system it's considered on

- Qualified/Skilled employee for reskilling and up skilling
- Unskilled employee- Skilled employee with NVQ qualification.

And flexibility considered as Time Flexibility those who works in industry and work as self-employee, especially in traditional vocational education system in sri lanka training courses conducted in Full time or Part time. These NVQ training mode called CBT and those who have skilled in particular occupation they can obtained NVQ certificate by RPL Mode.

In the NVQ system all NCS to be revised after 3 year period of time, therefore NCS updated as per the new industry requirements but human skills not trained as per the updated NCS those who worked in the industry because their rooting activities of the job. Therefore under FLM training time flexibility in variations.

- Week Day
- Week End
- Evening

Then those who wants to reskilling and up skilling their existing skills they can follow updated units in the NCS and get the record of achievement unite certificate for particular course unite. And Unskilled employee also can follow any unites in expected NCS any flexible time nearest vocational training institute. While they do the rooting activities in their job without affecting productivity of present job.

FLM is defining in many ways as bellows

Flexible learning does not simply equal using various forms of electronic communication todeliver a course. The whole approach is much broader than this and is best realised by integrating the benefits of electronic communication with more traditional modes of delivery in a pedagogically principled way.

- Modes of flexible learning include:
- face-to-face contact
- o websites with interactive content and/or chat rooms, discussion boards
- o CD-ROMs
- VHS or broadcast video
- Tteleconferencing or videoconferencing
- Print resources
- o Audio tapes
- Field trips.

When designing a course, you can choose to use any combination of these various modes, Depending on a number of factors, including availability of particular resources, cost, the kind of interaction you wish to encourage in your students, and the capacity of the technology to realize the learning objectives. In fact, this final consideration (match between learning objectives and use of the technology) is crucial. (FUNDAMENTALACADEMICSKILLS - Charles Darwin University –Hand Book)

The Australian literature offers a range of descriptions of the term 'flexible delivery is'. "A range of approaches to providing education and training, giving learners greater choice of when, where and how they learn".

Flexible delivery may involve

- Distance education,
- Mixed mode delivery,
- Online education,
- Self-paced learning,
- Self-directed learning,

etc. (Knight & Nestor 2000, p.18)

Essentially, the concept of flexible delivery brings a range of student- or learner-centred

considerations into a national VET system. The term is derived from the early national policy directions which sought to shift the emphasis from an input model of training, driven in the main by the major public training providers, to a customer/industry-based system. ANTA's National Flexible Delivery Taskforce final report describes flexible delivery as: ... an approach rather than a system or technique; it is based on the skill needs and delivery requirements of clients, not the interests of trainers or providers; it gives clients as much control as possible over what and when and where and how they learn; it commonly uses the delivery methods of distance education and the facilities of technology; it changes the role of trainer from a source of knowledge to a manager of learning and a facilitator... (ANTA 1996, p.8)

A range of flexible delivery models to support learning continues to evolve in the Australian VET environment, and the terms 'flexible learning' and 'flexible delivery' have often been used interchangeably. Researchers have also noted the problems for research and implementation of flexible delivery because of the lack of clarity in the flexible delivery terminology (Kearns 1997; ANTA 1997a, 1997b, 1997c; Nunan 1996). However, it is now clearer in both the literature and national policy directions that the stronger emphasis is on the term 'flexible learning'. The term

flexible delivery' is more appropriately applied when it is used in the context of the management, planning and systems for learning arrangements.

Exploring assessment in flexible delivery of vocational education and training programs- by Patricia Hyde ,Berwyn Clayton,Robin Booth

CHAPTER 03 – Data Presentation and Analysis of Data

This chapter focuses on the presentation and analysis of the data collected through the survey study. Furthermore, focusing on the objectives of the study, the findings of the survey are directed to offer recommendations and conclusions.

4.1 Presentation of Data

4.1.1 Awareness of Flexible Learning Mode (FLM)

 Table 4.1: Awareness of Flexible Learning Mode (FLM)

Awareness	Number	Percentage
Yes	13	43.3
No	17	56.7
Total	30	100.0

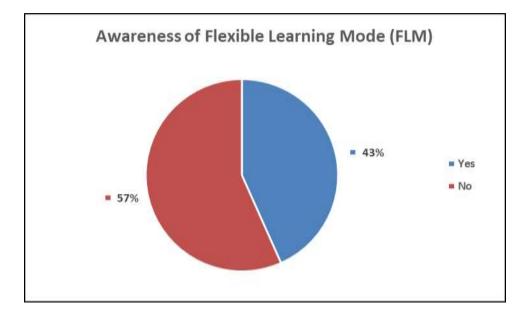


Figure 4.1: Awareness of Flexible Learning Mode (FLM)

As shown in Table 4.1 and figure 4.1, 57 percent of heads of institutions are not aware of Flexible Learning Mode (FLM). In other words, only 43 percent of heads of institutions are aware of FLM. That means majority of heads of institutions are not aware of FLM.

How to become aware of FLM	Number	Percentage
Through Main institute	5	38.5
Through TVEC	4	30.8
Through SSDP	2	15.4
Other	2	15.4
Total	13	100.0

 Table 4.2: How to become aware of FLM

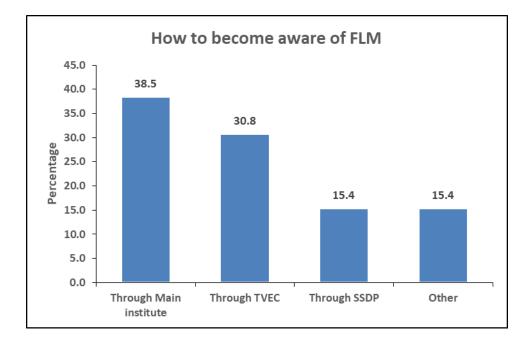


Figure 4.2: How to become aware of FLM

Table 4.2 and figure 4.2 depicts the way of being aware of the Flexible Learning Mode (FLM). 38.5 percent of heads of institutions state that they are aware of FLM through their main institution while 30.8 percent of heads of institutions state that they are aware of FLM through TVEC. The percentage of heads of institutions who are aware of FLM through Skills Sector Development Program (SSDP) is 15.4.

Table 4.3: Level of Awareness of FLM

Level of Awareness of FLM	Number	Percentage
Excellent	2	15.4
Good	4	30.8
Normal	7	53.8
Total	13	100.0

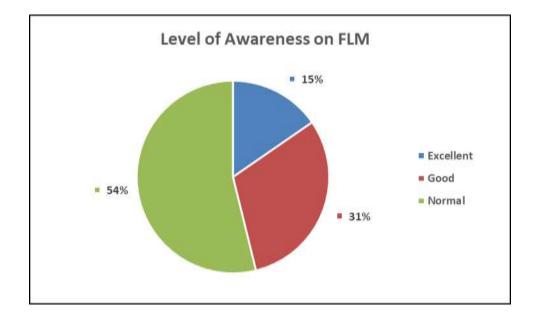
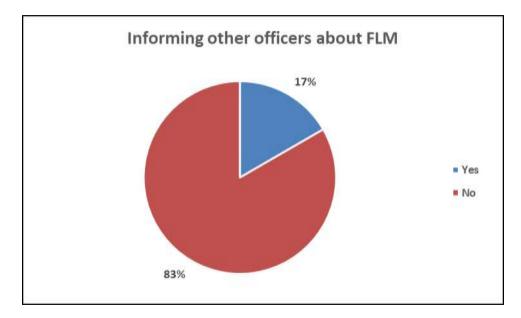


Figure 4.3: Level of Awareness of FLM

According to Table 4.3 and Figure 4.3, the level of awareness of heads of institutions who claim to be aware of FLM is illustrated. It can be clearly seen that more than 50 percent (53.8) of the heads of institutions are aware of FLM. It is excellent only 15.4 percent of heads of institutions. Therefore, the level of awareness of FLM among heads of institutions cannot be satisfied.

Did you inform other officials about FLM	Number	Percentage
Yes	5	16.7
No	25	83.3
Total	30	100.0

Table 4.4: Informing other officers about FLM





The above table and figure (Table 4.4 and Figure 4.4) show whether other officials have been informed by heads of institutions. Only 16.7 percent of heads of institutions have informed other officers while the rest of the heads of institutions (83.3) have not informed any other officer regarding FLM.

Officers who were informed about FLM	Number	Percentage
Career Guidance Officers	2	40.0
Training Officers	1	20.0
Assessors	2	40.0
Total	5	100.0

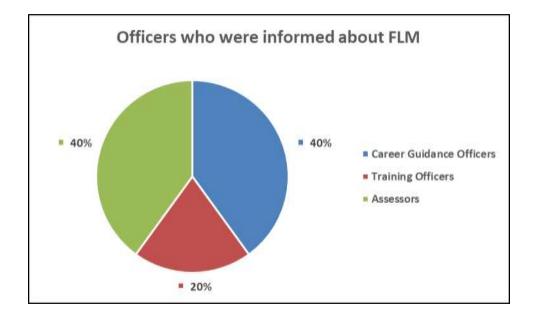


Figure 4.5: Officers who were informed about FLM

Table 4.5 and Figure 4.5 present the officers who were informed about FLM. It indicates that assessors and career guidance officers have been informed about FLM 40% each respectively.

Response of officers informed about FLM	Number	Percentage
Satisfied	3	60.0
Not Satisfied	1	20.0
Not Responded	1	20.0
Total	5	100.0

Table 4.6: Response of officers informed about FLM

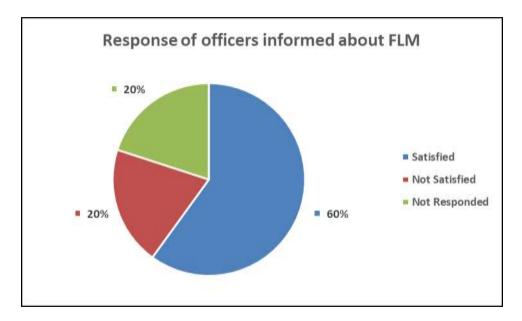


Figure 4.6: Response of officers informed about FLM

The response of officers who have been informed about FLM illustrates in Table 4.6 and Figure 4.6. It can be seen that only 20 percent of officers who have been informed about FLM are satisfied. 20 percent of officers are not satisfied while 60 percent of officers are not even responded.

4.1.2 Implementation of Flexible Learning Mode (FLM)

Table 4.7: Inclusion of FLM implementation in the annual plan

Inclusion of FLM implementation in the annual plan	Number	Percentage
Yes	14	46.7
No	16	53.3
Total	30	100.0

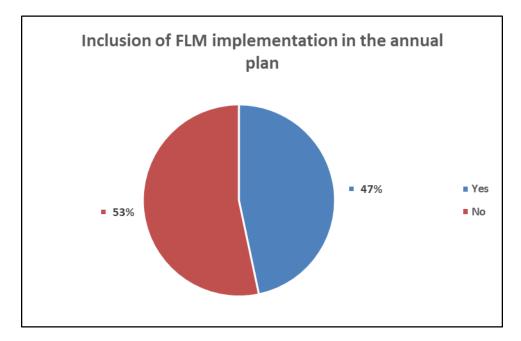


Figure 4.7: Inclusion of FLM implementation in the annual plan

Table 4.7 and Figure 4.7 depicts the inclusion of FLM in the annual plan. More than 50 percent of institutions (53.3) have not included the implementation of FLM in the annual plan.

Approval of FLM in Annual Plan	Number	Percentage
Yes	5	35.7
No	9	64.3
Total	14	100.0

Table 4.8: Approval of FLM in Annual Plan

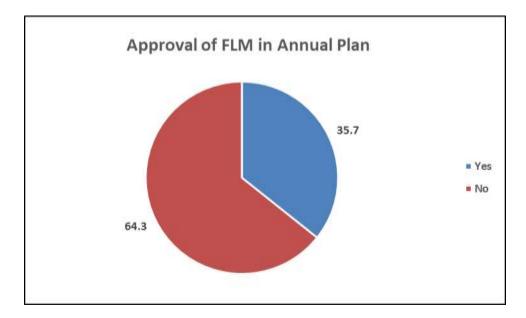


Figure 4.8: Approval of FLM in Annual Plan

As shown in table 4.8 and figure 4.8, 64.3 percent of inclusions have been rejected. In other words, only 35.7 percent of inclusions to the annual plan has approved.

Table 4.9: Demand for learning through FLM

Demand for learning through FLM	Number	Percentage
Yes	24	80.0
No	6	20.0
Total	30	100.0

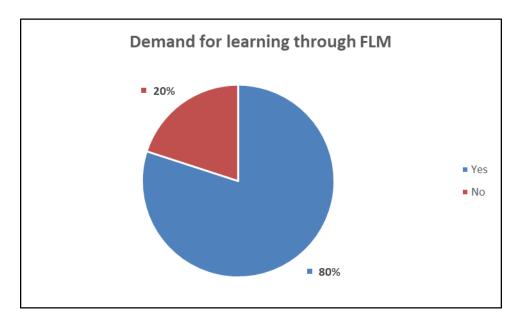


Figure 4.9: Demand for learning through FLM

Table 4.9 and figure 4.9 show whether there is a demand for learning through FLM. As mentioned by the heads of institutions, 80 percent of them state that there is no demand for learning through FLM. Only 20 percent accept that there is a demand for FLM.

4.1.3: Availability of resources for the implementation of FLM at the Training Canter

Availability of resources for the implementation of FLM at the training center	Number	Percentage
Enough	13	43.3
Not Enough	17	56.7
Total	30	100.0

Table 4.10: Resources for the implementation of FLM at the training center

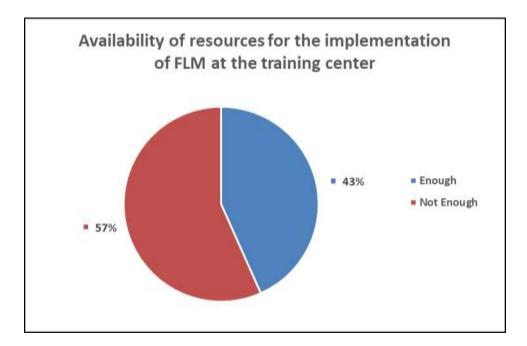


Figure 4.10: Resources for the implementation of FLM at the training center

The above table and figure (Table 4.10 and Figure 4.10) present the availability of resources for the implementation of FLM at the training center. 56.7 of heads of

institutions state that the availability of resources for the implementation of FLM is not enough. That means there may be a lack of resources for the implementation of FLM at training centers.

Table 4.11: Informing the head office about insufficient resources for the implementation of FLM

Informing the head office about insufficient resources for the implementation of FLM	Number	Percentage
Yes	9	52.9
No	8	47.1
Total	17	100.0

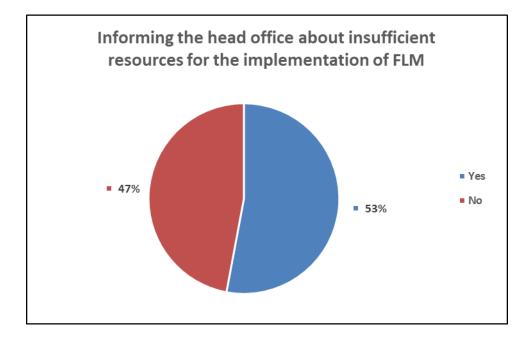


Figure 4.11: Informing the head office about insufficient resources for the implementation of FLM

Informing the head offices about the insufficient resources for the implementation of FLM is presented in Table 4.11 and Figure 4.11. it can clearly be seen that 47.1 percent of heads of institutions have not informed to the head office about insufficient resources for the implementation of FLM.

Table 4.12: Response of the head office after notification of insufficient resources

Response of the head office after notification of insufficient resources	Number	Percentage
Can be satisfied	2	20.0
Can't be satisfied	8	80.0
Total	10	100.0

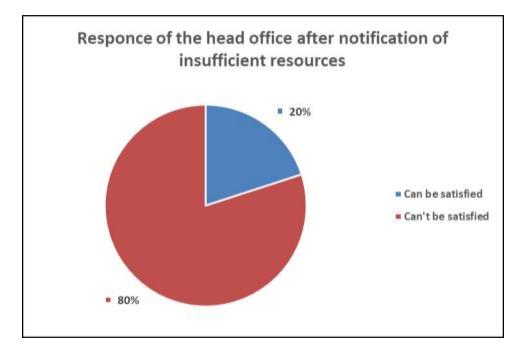


Figure 4.12: Response of the head office after notification of insufficient resources

As per table 4.12 and figure 4.12, the response of the head office after the notification of insufficient resources is presented. 80 percent of heads of institutions state that the response of the head office regarding insufficient resources for the implementation of FLM can not be satisfied.

Favorite time to study under FLM	Number	Percentage
Weekend	17	56.7
Night	8	26.7
Weekdays	5	16.7
Total	30	100.0

Table 4.13: Students' Favorite time to study under FLM

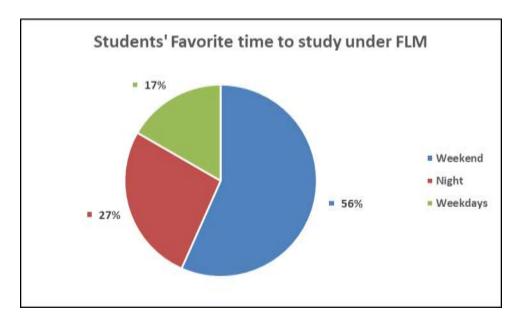


Figure 4.13: Students' Favorite time to study under FLM

According to the table 4.13 and figure 4.13, 56.7 percent of heads of institutions state that the weekend time is students' favorite time to study under FLM. Percentage for night time as the favorite time is 26.7 percent. Only 16.7 percent state it as weekdays.

Table 4.14: The time the institution can devote to FLM

The time the institution can devote to FLM	Number	Percentage
Weekend	13	43.3
Night	5	16.7
Weekdays	12	40.0
Total	30	100.0

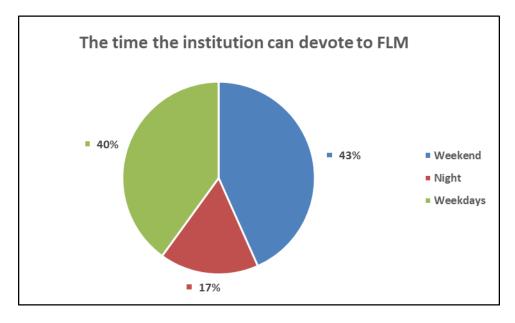


Figure 4.14: The time the institution can devote to FLM

Table 4.14 and figure 4.14 illustrate that the time the institution can devote to FLM. According to the institute's availability, weekend is the most available time when institution can devote to FLM. It is match with the students' preference according to the table 4.13 and figure 4.13.

4.1.3: Instructors' preference for implementing FLM

 Table 4.15: Instructors' preference for implementing FLM

Instructors' preference for implementing FLM	Num ber	Perc enta ge	
Yes	11	36.7	
No	19	63.3	
Total	30	100.0	

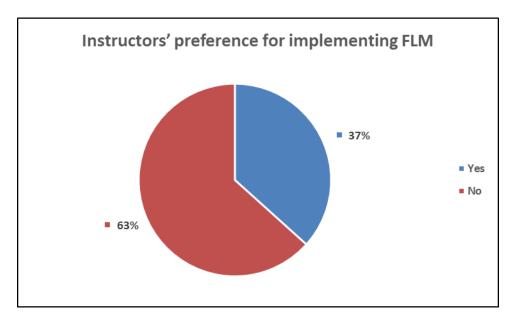


Figure 4.15: Instructors' preference for implementing FLM

Table 4.15 and figure 4.15 depicts that instructors' preference for implementing FLM. Instructors' preference is one of the very important factors for quality teaching. It can clearly be seen that only 36.7 percent of instructors are willing to teach under FLM while othrs are not willing (63.3%).

Table 4.16: Ability to implement FLM in the district

Ability to implement FLM in the district	Number	Percentage
Can be implemented	13	43.3
Difficult to implement	17	56.7
Total	30	100.0

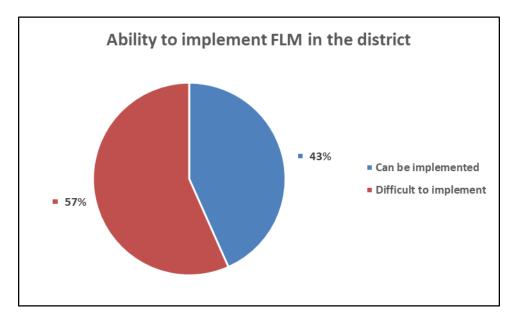


Figure 4.16: Ability to implement FLM in the district

Considering the ability to implement FLM in the district, 56.7 percent of heads of institutions have mentioned that they are difficult to implement FLM in their district. Only 43.3 percent of heads of institutions state that FLM can be implemented in their district.

4.2: Analysis of Data

Under the presentation of data, after having rough ideas about the data collected, it is necessary to verify whether the objectives of this study are proved. It is covered under the analysis of data. This part covers the testing of the relationship between ability to implement FLM (dependent variable) and awareness on FLM, inclusion of FLM in to the annual plan, availability of resources for implementing FLM, and instructors' willingness to implement FLM.

4.2.1: Testing the relationship between ability to implement FLM and awareness of FLM.

Table:	4.17:	Testing	the	relationship	between	ability	to	implement	FLM	and
	a	wareness	of F	LM						

	Awareness of FLM						
Implement ation of	Yes			No		Total	
FLM	Num ber	%	Num ber	%	Num ber	%	
Can be implemente d	12	92 .3	1	5. 9	13	43 .3	
Difficult to implement	1	7. 7	16	94 .1	17	56 .7	
Total	13	10 0. 0	17	10 0. 0	30	10 0. 0	

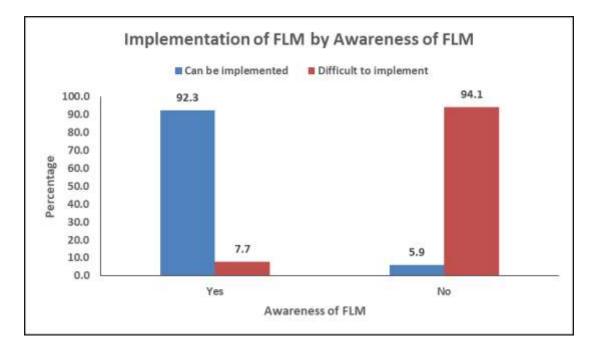


Figure 4.17: Implementation of FLM by Awareness of FLM

Table 4.17 and Figure 4.17 illustrate the relationship between awareness of FLM and the ability to implement FLM. It can be clearly seen that 92.3 percent of the heads of institutions who states that they are aware of FLM have said that they can implement FLM. Only 7.7 percent of heads of institutes who states that they are aware of FLM have said that they are difficult to implement FLM. In contrast, 94.1 percent of heads of institutes who are not aware of FLM state that they are difficult to implement FLM. Therefore, it is obvious that awareness of FLM has influenced the implementation of FLM. This relationship needs to be tested statistically.

Hypothesis testing;

H0: There is no relationship between ability to implement FLM and awareness of FLM H1: There is a relationship between ability to implement FLM and awareness of FLM

Chi-Square Tests								
			Asymptotic					
			Significance	Exact Sig.	Exact Sig.	Point		
	Value	df	(2-sided)	(2-sided)	(1-sided)	Probability		
Pearson Chi-Square	22.408 ^a	1	.000	.000	.000			
Continuity Correction ^b	19.027	1	.000					
Likelihood Ratio	26.397	1	.000	.000	.000			
Fisher's Exact Test				.000	.000			
Linear-by-Linear Association	21.661 ^c	1	.000	.000	.000	.000		
N of Valid Cases	30							

Test Statistics;

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.63.

b. Computed only for a 2x2 table

c. The standardized statistic is 4.654.

Decision Rule:

If significant value related to Pearson Chi-Square is less than 0.05, then H0 is rejected. Otherwise H0 is accepted.

Decision and Conclusion:

Significant value related to Pearson Chi-Square is 0.000 that is less than 0.05. Therefore, enough evidence is there to reject H0. So, it can be concluded that there is a relationship between ability to implement FLM and awareness of FLM. Therefore, it is clear that awareness of FLM is very important factor for implementing FLM.

4.2.2: Testing the relationship between ability to implement FLM and inclusion of implementing FLM in to the annual plan

 Table 4.18: Testing the relationship between ability to implement FLM and inclusion of implementing FLM in to the annual plan

	In	clusion FLM	in to the Annua	l Plan		Tatal	
Implement ation of	Yes			No		Total	
FLM	Num ber	%	Num ber	%	Num ber	%	
Can be implemente d	10	71 .4	3	18 .8	13	43 .3	
Difficult to implement	4	28 .6	13	81 .3	17	56 .7	
Total	14	10 0. 0	16	10 0. 0	30	10 0. 0	

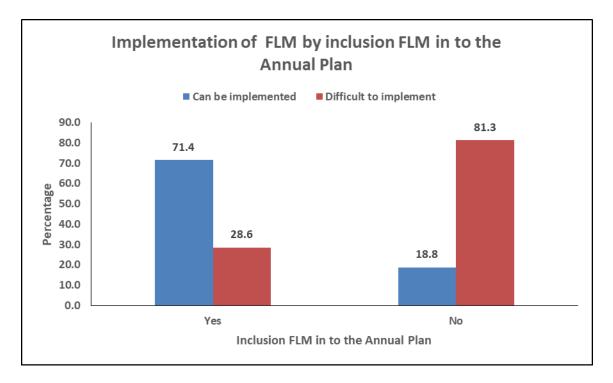


Figure 4.18: Ability to Implement FLM by Inclusion FLM in to the Annual Plan

Table 4.18 and Figure 4.18 illustrate the relationship between the inclusion FLM in to the annual plan and the ability to implement FLM. It can be clearly seen that 71.4 percent of the heads of institutions who states that FLM has been included in to the annual plan have said that they can implement FLM. 28.6 percent of heads of institutes who states that FLM has been included in to the annual plan have said that they are difficult to implement FLM. In contrast, 81.3 percent of heads of institutes who has not included FLM in to the annual plan state that they are difficult to implement FLM. Therefore, it is obvious that inclusion FLM in to the annual plan has influenced the implementation of FLM. This relationship needs to be tested statistically.

Hypothesis testing;

- H0: There is no relationship between ability to implement FLM and inclusion of FLM in to the annual plan
- H1: There is a relationship between ability to implement FLM and inclusion of FLM in to the annual plan

Test Statistics;

Chi-Square Tests						
			Asymptotic			
			Significance	Exact Sig. (2-	Exact Sig. (1-	Point
	Value	df	(2-sided)	sided)	sided)	Probability
Pearson Chi-Square	8.438 ^a	1	.004	.009	.005	
Continuity Correction ^b	6.429	1	.011			
Likelihood Ratio	8.860	1	.003	.009	.005	
Fisher's Exact Test				.009	.005	
Linear-by-Linear	8.157 ^c	1	.004	.009	.005	.005
Association						
N of Valid Cases	30					

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.07.

b. Computed only for a 2x2 table

c. The standardized statistic is 2.856.

Decision Rule:

If significant value related to Pearson Chi-Square is less than 0.05, then H0 is rejected. Otherwise H0 is accepted.

Decision and Conclusion:

Significant value related to Pearson Chi-Square is 0.004 that is less than 0.05. Therefore, enough evidence is there to reject H0. So, it can be concluded that there is a relationship between ability to implement FLM and inclusion of FLM in to the annual plan.

Therefore, it is clear that inclusion of FLM into the annual plan is very important factor for implementing FLM.

4.2.3: Testing the relationship between ability to implement FLM and Availability of Resources.

Table 4.19: Testing the relationship between ability to implement FLM and availability of resources

Implement -		Availabi	lity of Resource	6		Total	
ation of		Yes		No		Iotai	
FLM	Num ber	%	Num ber	%	Num ber	%	
Can be implemente d	9	69 .2	4	23 .5	13	43 .3	
Difficult to implement	4	30 .8	13	76 .5	17	56 .7	
Total	13	10 0. 0	17	10 0. 0	30	10 0. 0	

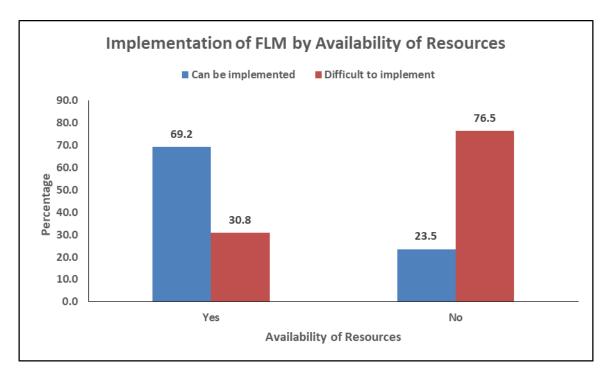


Figure 4.19: Implementation of FLM by Availability of Resources

Table 4.19 and Figure 4.19 illustrate the relationship between the availability of resources for the implementation of FLM and the ability to implement FLM. It can be clearly seen that 69.2 percent of the heads of institutions who states that resources are available to implement FLM have said that they can implement FLM. 30.8 percent of heads of institutes who states that resources are available to implement FLM have said that they are difficult to implement FLM. In contrast, 81.3 percent of heads of institutes who has not available resources to implement FLM state that they are difficult to implement FLM. Therefore, it is obvious that the availability of resources has become a considerable factor in the implementation of FLM. This relationship needs to be tested statistically.

Hypothesis testing;

H0: There is no relationship between ability to implement FLM and availability of resources H1: There is a relationship between ability to implement FLM and availability of resources

Test Statistics;

		Chi-S	quare Tests	S		
			Asymptotic			
			Significance	Exact Sig.	Exact Sig.	Point
	Value	df	(2-sided)	(2-sided)	(1-sided)	Probability
Pearson Chi-Square	6.266 ^a	1	.012	.025	.016	
Continuity Correction ^b	4.543	1	.033			
Likelihood Ratio	6.455	1	.011	.025	.016	
Fisher's Exact Test				.025	.016	
Linear-by-Linear	6.057 ^c	1	.014	.025	.016	.014
Association						
N of Valid Cases	30					

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.63.

b. Computed only for a 2x2 table

c. The standardized statistic is 2.461.

Decision Rule:

If significant value related to Pearson Chi-Square is less than 0.05, then H0 is rejected. Otherwise H0 is accepted.

Decision and Conclusion:

Significant value related to Pearson Chi-Square is 0.012 that is less than 0.05. Therefore, enough evidence is there to reject H0. So, it can be concluded that there is a relationship between ability to implement FLM and availability of resources. Therefore, it is clear that availability of resources is very important factor for implementing FLM.

4.2.4: Testing the relationship between ability to implement FLM and the willingness of instructors to teach under FLM

 Table 4.20: Testing the relationship between ability to implement FLM and the willingness of instructors to teach under FLM

Implement		Instruct	ors' Willingness	;		Total	
ation of	Yes			No		I Otal	
FLM	Num ber	%	Num ber	%	Num ber	%	
Can be implemente d	8	72 .7	5	26 .3	13	43 .3	
Difficult to implement	3	27 .3	14	73 .7	17	56 .7	
Total	11	10 0. 0	19	10 0. 0	30	10 0. 0	

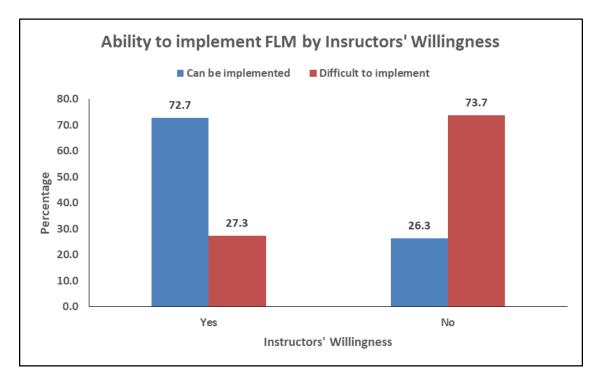


Figure 4.20: Ability to implement FLM by instructors' willingness

Table 4.20 and Figure 4.20 illustrate the relationship between instructors' willingness to teach under FLM and the ability to implement FLM. It can be clearly seen that 72.7 institutions where instructors are willing to teach under FLM have mentioned that FLM can be implemented. 27.3 institutions, where instructors are willing to teach under FLM, have mentioned that FLM can not be implemented. In contrast, 73.7 of institutions where instructors are not willing to teach under FLM have mentioned that difficult to implement FLM. Therefore, it is obvious that the instructors' willingness to teach under FLM has become a considerable factor in the implementation of FLM. This relationship needs to be tested statistically.

Hypothesis testing;

- H0: There is no relationship between ability to implement FLM and instructors' willingness to teach under FLM
- H1: There is a relationship between ability to implement FLM and instructors' willingness to teach under FLM

Chi-Square Tests						
			Asymptotic Significance (2-	Exact Sig. (2-	Exact Sig. (1-	Point
	Value	df	sided)	sided)	sided)	Probability
Pearson Chi-Square	6.111 ^a	1	.013	.023	.018	
Continuity Correction ^b	4.367	1	.037			
Likelihood Ratio	6.262	1	.012	.023	.018	
Fisher's Exact Test				.023	.018	
Linear-by-Linear Association	5.907 ^c	1	.015	.023	.018	.016
N of Valid Cases	30					

Test Statistics;

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.77.

- b. Computed only for a 2x2 table
- c. The standardized statistic is 2.431.

Decision Rule:

If significant value related to Pearson Chi-Square is less than 0.05, then H0 is rejected. Otherwise H0 is accepted. **Decision and Conclusion:**

Significant value related to Pearson Chi-Square is 0.013 that is less than 0.05. Therefore, enough evidence is there to reject H0. So, it can be concluded that there is a relationship between ability to implement FLM and instructors' willingness to teach under FLM. Therefore, it is clear that instructors' willingness is very important factor for implementing FLM.

CHAPTER 4 – FINDINGS, CONCLUSION AND RECOMMENDATIONS

Through research four factors have been considered to implementation of Flexible Learning Mode in government institutes as follows

Number	Factors	Re	sult
			No
1	Ability to implement FLM and awareness of FLM	43.3	56.7
2	Ability to implement FLM and inclusion of implementing FLM in to the annual plan	46.7	53.3
3	Implementation of FLM by Availability of Resources	20.0	80.0
4	Ability to implement FLM by instructors' willingness	36.7	63.3

1. Ability to implement FLM and awareness of FLM.

To implement new systems in to existence system implementing party to be aware the system first and to be satisfy the system but as per the indicated result that wasn't happen therefore the awareness presentation is 56.7 out of 100.

2. Ability to implement FLM and inclusion of implementing FLM in to the annual plan

In the process of implementing new course mode for NVQ system under the government institute is to be include in annual implementation plan of the each district with the approval of head office therefore it should be included.

3. Implementation of FLM by Availability of Resources

Most of the government institute conducted CBT mode week days and five institute conducted weekend courses but institute not ready for the evening courses, due to security of the students and the lack of transport facility for the instructors and the students. In sufficient light facility for the classroom and institutes.

4. Ability to implement FLM by instructors' willingness.

Instructors not ready to take responsibility of conducing FLM mode cores due to skill gap of the students for the learning of specific units. And data feeding for the online system is not familiar for the non-academic staff as well.

Recommendations

✓ To be conducted full awareness program for the Higher Management of the Institute and all other academic and non-academic staff to get aware on the FLM. After full fill the infrastructure facility of all institute which is planning to implement FLM. And need to identify the suitable resource person for conducting courses. If the permanent staff not sufficient instructors to be outsourced as per the demand of the week end and evening courses. After identity the FLM hi demand area at least one center in each district and to be included implementation of FLM to the annual plain of the Institute.

REFERENCES

Top Hat – Glossary 2023/01/10 https://tophat.com/glossary/f/flexible-learning/

Raphael Raymundo 5 Flexible Learning Modes for the New Normal <u>https://cerebrolms.com/5-flexible-learning-modes-new-normal/</u> Posted on November 20, 2020

(IGI Science and Technology, Ltd.) What is Flexible Learning – (Page Link) <u>https://www.igi-global.com/dictionary/classification-approaches-web-enhanced-learning/11249</u>

Dr. Janaka Jayalath (TVEC Deputy Director General) TVEC launches flexible learning modules for identified NVQ levels Thursday, 19 May 2022 00:00 TVEC launches flexible learning modules for identified NVQ levels | Daily FT

Dr.K.A.Lalthadeera. Procedure for FLM (Letter for TVET Institute).

National vocational qualifications framework of Sri Lanka Operations Manual October 2009.

Minutes of the meeting of the FLM assessment Awareness. With Secretary SSDP 18.02.2021.

NVQ Certificate issuing database for RPL.

Operational Manual for Implementing Flexible Learning Model (FLM) for Reskilling and Upskilling of Existing Workforcein the Private Sector. State Ministry of Skills Development, Vocational Education, Research and Innovation Skill Sector Development Programme (SSDP)- 25 November 2020.

APPENDIX

Questionnaire

Research on Factors depend to implement FLM (Flexible learning Mode) in Government Centers

රජා වෘත්තීය පුහුණු ආයතන තුළ නමාාශීලී ඉගෙනුම් කුමවේදය කියාත්මක කිරීමට බලපාන සාදක අධානය.

උක්ත මාතෘකාව අදාලව කරුණු සොයා බැලිමක් කිරීම සදහා සහ කියාත්මක කිරීමහි ලා ඇති ගැටළු හදුනාගැනීම සදහා වූ මෙම පුශ්නාවලිය සදහා අවශා තොරතුරු ලබා දෙන මෙන් කරුණිකව ඉල්ලා සිටිමි.

- 1. FLM කු්යාවලිය පිළිබදව ඔබ දැනුවත්ද?
 - a. ඔව් b. නැත
- 2. ඒ පිළිබදව දැනුවත් වූ ආකාරය?
 - a. මව් ආතනයෙන්
 - b. TVEC ආතනයෙන්
 - c. SSDP ආතනයෙන්
 - d. වෙනත්
- 3. FLM පිලිබද ඔබගේ දැනුවත් භාවය?
 - a. ඉතා ඉහලයි
 - b. සතුටුදායකයි
 - C. සාමාන්යයි
 - d. පුමාණවත් නැත
 - e. දැනුවත් භාවයක් නැත
- 4. FLM කියාවලිය පිළිබදව ඔබ විසින් දිස්තික්කයේ වෙනත් නිළධාරීන් දැනුවත් කලේද ?
 - a. වෘත්තීය මාර්ගෝපදේශන නිළධාරීන්
 - b. වැඩසටහන් නිළධාරීන්
 - C. පුහුණු නිළධාරීන්
 - d. පරීක්ෂක/ ඇගයීම් නිළධාරීන්
 - e. වෙනත්.....

- 5. දැනුවත් කල නිළධාරීන්ගේ FLM කුමෙව්දය පිළිබදව පුෆීචාරය කෙසේද?
 - a. සැහීමට පත්වේ
 - b. සැහීමට පත්නොවේ
 - c. පුථිචාර නොදක්වයි
- 6. FLM පුථිලාභීන් ලෙස ඔබ හදුනාගනේ කවුරුන්ද?
- 7. FLM කුමවේදය කියාත්මක කිරීම 2022 වාර්ෂික සැලැස්මට අතුලත්ද?
 - a. ඔව් _____ b. නැත _____
 - c. අදහසක් නැත. L
- 8. ඉහත 07 පුශ්නය සදහා පිළිතුර ඔව් නම් ඒම වාර්ෂික සැලැස්ම සදහා අනුමැතිය ලැබී ඇත්ද?.
 - a. ඔව් _____ b. නැත _____
- 9. FLM කුමවේදය යටතේ පාඨමාලා සදහා සම්බන්ධවීම සදහා ඉල්ලුමත් පවතීද?.
 - a. ඔව් b. නැත

පුශ්ණයට පිලිතූර "ඔව්" නම් 11 ද පිලිතූර "නැත" නමි 12 පිළිතූරු සපයන්න

- 10. FLM කුමවේදය ඔස්සේ පාඨමාලා කියාත්මක කිරීමට අයතනයේ පහසුකම් පවතීද?.
 - a. ඔව් L . Г
 - b. නැත
 - ඉහත අංක 10 ප්‍රශ්නය සදහා පිළිතුර නැත නම් පහසුකම් ලබා ගැනීම සදහා මව ආයතනය දැනුවත් කර තිබේද?.

1.	ඔව්	
2.	නැත	

- ii. ඒ සම්බන්ධව මව් ආයතනය දැක්වූ පුථිචාරය පිළිබදව
 - 1. සැහීමකට පත්වේ

	2	සැහීමකට පත් නොවේ 🗌
	iii. සැහීම	ට පත්නොවේ නම් හේතු සදහන් කරන්න.
11. FLM	කුමෙව්දය යට	තේ පාඨමාලා හැදෑරීමට ඉල්ලුමක් ඇත්තේ?.
a.	සති අන්ත	
	රාතු	
	ු සතියේ දින	
12		
	I.	ට FLM කුමෙව්දය යටතේ පාඨමාලා හැදැරීමට ඉල්ලුමක් ඇත්තේ පහත
සදහ	න් කුමන වේල	වන්හදද
a.	සතිඅන්ත	
b.	රාති	

13. ඉහත 12 පුශ්නය සදහා පිළිතුර රාතී නම් රාතී පාඨමාලා සදහා සහභාගිවන සිසුන්ගේ ආරක්ෂාව තහවුරු කර ඇත්ද?.

-		·
1.	ඔව්	
2.	නැත	

14. රාතී පාඨමාලා පැවැත්වීම සදහා උපදේශක වරැන්ගේ කැමැත්තක් තිබේද.

1.	ඔව්	
2.	නැත	

- 15. ඉහත 14 පුශ්නය සදහා පිළිතුර නැත නම් ඒසදහා හේතු කවරේද?.
 - a.

C. සතියේ දින

16. FLM කුමෙව්දය යටතේ පාඨමාලා ඒකක හැදැරීම මගින් ඒකක සහතික ලබා දීම සාර්ථක කුමයක්ද?

1.	ඔව්	
2.	නැත	

17. ඔබ දිස්තික්කය තුල FLM කුමෛව්දය කියාත්මක කළ හැකිද? හැකිනම් ඒ කුමණ හේතූන් මතද කෙටියෙන් කරණු දක්වන්න.

18. ඔබ දිස්තික්කය තුල FLM කුමෙව්දය කියාත්මක කළ නොහැකිද ? ඒ කුමණ හේතූන් මතද කෙටියෙන් කරණු දක්වන්න.

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19. FLM කුමෙව්දය වඩාත් සාර්ථකව කියාත්මක කිරීමට ඔබගේ යෝජනා මොනවාද?

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