Effectiveness of Higher Diploma Program from the Perspective of Graduates and Leaders: The Case of Mekelle University- Ethiopia

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Abstract

The purpose of this study was to assess the effectiveness of the Higher Diploma Program (HDP) against its stated objectives and to identify the major challenges in its implementation at Mekelle University. The study employed a descriptive survey design and a concurrent mixed approach. Data were collected from 77 HDP participants and six leaders (five HDP leaders and one HDP coordinator) through a survey questionnaire and interviews, respectively. Additionally, key documents were analyzed to support the data collected through interviews and questionnaires. Data from the closed-ended questionnaire were analyzed using percentages, mean, standard deviation, and one-way ANOVA. Meanwhile, data from interviews, open-ended questions, and document analysis were qualitatively narrated. The findings indicated that the application of the HDP to the workplace and the achievement of its objectives were not satisfactory. However, respondents' perceptions of satisfaction and acquisition of knowledge and skills were high. Major challenges in implementation included lack of motivation on the part of leaders/tutors, absence of additional workshops and seminars, heavy workload, lack of student interest, inadequate facilities, and lack of attention from the university. Organizing continuous workshops and seminars and institutionalizing monitoring and evaluation may help improve the effectiveness of the HDP at Mekelle University.

*Keywords***:** *Effectiveness, Higher Diploma graduates, Higher Diploma Program, Higher Diploma Program Leader, Perception, Training*

Introduction

The Higher Diploma Program (HDP) for teacher educators in Ethiopia began in 2003 (MoE, 2003). It was initiated following a national study commissioned by the FDRE-MoE in 2002, which examined the overall education system of Ethiopia, with a particular focus on the teacher education system (MoE, 2003). The study found out that Ethiopian teachers failed to play a major role in educational development efforts and the teaching-learning was heavily dominated by a teacher-centered approach. The study also discovered that the aforementioned problems were mainly attributable to a lack of adequate and appropriate staff development and training opportunities provided for teachers.

Consequently, the FDRE-MoE introduced the Teacher Education System Overhaul -TESO (Demewoz, 2016) encompassing considerable changes related to teacher training and teacher educators. The HDP was one component of the TESO; thus, it was introduced to be given to all teacher educators, but lately, it was revised and introduced as mandatory training for all higher education institutions (MoE, 2011). The objectives of the HDP, amongst others, are intended to improve the quality of classroom practice, to enable teachers to be reflective in their daily lessons, engage in action research, employ collaborative learning and teamwork, and use continuous assessment (MoE, 2011).

Mekelle University has been providing the HDP since 2003, initially for teacher educators and lately for academic staff from different colleges and disciplinary areas. Documents archived at the Institute of Pedagogical responsible for providing the HDP training revealed that about 946 academic staff took the training between 2007/8 and 2018/9 in fourteen batches (Mekelle University, 2019).

Following the implementation of HDP, several studies have been conducted in different thematic areas. Among others, research done by Jula and Shimelis (2018) found that HDP-trained teachers were found to be better at reflective practice, implementing a variety of active learning methods and assessment techniques than non-HDP-trained ones. Their finding supports the output of other researchers from other contexts (Stuart et al, 2010) who found a positive impact of HDP training on teachers' usage of active learning, continuous assessment, and action research.

However, this may not be the reality in all universities. Research conducted at Assosa University indicated that the impact of HDP training on the teaching-learning process is low mainly due to the weak attitude of teachers towards HDP, the lack of a conducive environment, and absence of l follow-up and adequate support from the HDP leaders (Atnafu, 2018). Moreover, Garkebo and Anwar (2019) found that the actual implementation of HDP activities compared to the activities depicted in the HDP handbook was low. In harmony with these findings, a study

conducted at Jimma University indicated that HDP graduates flied to apply the skills obtained from Higher Diploma Trainings to the expected level (Adula, 2008). Recently, Ataklti and Yilfashewa (2020) conducted research focusing on examining the involvement of stakeholders in the implementation of HDP at Mekelle University, using the Concern Based Adoption Model. The researchers found that the implementation of the program was not planned, well performed, and assessed.

The studies discussed hereabove did not examine the effectiveness of HDP thoroughly using a model applicable to implementation of programs. Thus, further research seems to be important to gain a better understanding of the effectiveness of HDP training. For instance, Jula and Shimels (2018), and Atnafu (2018), focus on the effects of HDP training; Garkebo and Anwar (2019), focus on assessing the practices and challenges of HDP; and Ataklti and Yilfashewa (2020) undertook research focusing on the involvement of stakeholders in the implementation of HDP. On the other hand, Adula (2008) examined the application of Higher Diploma training skills in classroom instruction while Stuart et al. (2010) focused on the attitudes of the HDP participants and perceived barriers to its implementation.

However, none of the studies gave attention to the effectiveness of HDP in terms of fulfilling the purposes intended for the program using a four-level model. Moreover, on top of the research findings mentioned above, our anecdotal pieces of evidence, and work experience as a lecturer at the university revealed that the implementation of the HDP training is not as desired. The research conducted by Ataklti and Yilfashewa (2020) has also triggered the researcher to examine the problem using a different model (see theoretical framework section below). Keeping Ataklti and Yilfashewa (2020) study as a vantage point, this study helps to identify where the problem of implementation lies; it is on the reaction, learning, behavior, or result level. As stated by Krickpartic (1996) to make the best use of organizational resources of time, money, materials, space, equipment, and manpower, continued efforts are needed to assess all levels of effectiveness of training programs.

Hence, it was essential to make an assessment of the effectiveness of HDP training and identify the barriers to its implementation. Besides, assessing the effectiveness of HDP and its bottlenecks is essentially important to improve the implementation of the HDP, which ultimately leads to improvement in the teaching-learning process. Accordingly, this study was initiated to cover the gaps mentioned above. As a result, the findings obtained from this study may give some insight into improving the effectiveness and reducing the challenges to HDP.

The purpose of this study, therefore, was to assess the effectiveness of HDP from graduates' and leaders' perspectives based on the Kirkpatrick model (1996), and identify the major challenges in the implementation of the HDP. In so doing, the research was guided by the following basic questions:

- *How do HDP graduates and leaders perceive the effectiveness of the HDP training?*
- *Is there a significant difference among the HDP graduates as far as the effectiveness of HDP is concerned?*
- *What are the possible challenges that hinder HDP graduates from using skills gained in HDP training?*

Theoretical Framework

The four-level framework developed by Donald Kirkpatrick (1996) provides the theoretical framework for this study. It offers a four-level strategy that can be used to evaluate the effectiveness of training courses such as the HDP. These include ***Reaction***- which refers to the extent to which learners were satisfied with the program. The second, ***learning*** *is* designated as the determination of what knowledge, attitudes, and skills were learned in the training. The third level is defined as ***behavior***, which assesses the level of trainees applying their knowledge and skill in the role, and the fourth measurement level; ***result***s illustrate the expected outcomes of most educational training programs, such as improved quality.

Research Design and Methodology

The study employed a descriptive survey design and a mixed concurrent approach. The mixed concurrent approach was employed because it helps to disclose the effectiveness of HDP as perceived by the HDP graduates and leaders/tutors and identify the major challenges during implementation. Moreover, it is useful in assessing the existing situation and describing characteristics of various data sets that include the views and attitudes of respondents (Creswell & Creswell, 2017). As stated by Creswell (2012) the basic reason for choosing this approach is "…that one data collection form supplies strengths to offset the weaknesses of the other form, and that a more complete understanding of a research problem results from collecting both quantitative and qualitative data (p. 540)". Unlike the mixed sequential methods, the mixed concurrent approach is important to triangulate data collected through different data collection tools.

The target population of this study were HDP graduates (2017/8-2018/9), leaders, and program coordinators. During the study period (2021), there were seven colleges and eight institutes at Mekelle University. Out of these, three colleges were chosen using simple random sampling. The simple random sampling technique was employed assuming that there was no such variation across the sampled colleges and institutes. Moreover, simple random sampling gives an equal chance of involvement (Mills & Gay, 2016).

Moreover, three institutes were chosen using purposive sampling. Unlike others, had HDP graduates and students in their undergraduate and postgraduate programs. Besides, out of the 946 academics who completed HDP in 14 batches, only two batches were included in the study. These two batches were purposefully selected, as these two batches account for about 40% of the total graduates. Besides, the researcher has also considered the manageability of the study, time constraints, and availability of the graduates. A sample size of 80 (41.5%) is acceptable if the population is about 200 (Kotrlik & Higgins, 2001; Bartlett et al., 2001).

Table 1: *Number of Graduates and Sample Size*

SN	Colleges/Institutions	Total HDP Graduates (2017/8-2018/9)	Currently not available*	Currently active staff	Sample
1	College of Natural and Computational Sciences	40	4	36	15
2	College of Dryland Agriculture and Natural Resource	25	3	22	12
3	College of Law and Governance	24	4	20	7
4	Ethiopian Institute of Technology- Mekelle	124	20	104	33
5	Institute of Paleoenvironment and Heritage Conservation	9	3	6	5
6	Institute of Pedagogical Sciences	6	1	5	5
	Total	228	35	193	77

The study used both primary and secondary sources. Hence, a questionnaire, interview, and document analysis were used to collect the data. A questionnaire is essential to collect data from a wide range of respondents (Creswell, 2012). The questionnaire was developed by the researcher by consulting literature on HDP in Higher education institutions and some adopted guiding questions from Krikpatrick training evaluation model (Krikpatrick, 1996).

The self-prepared questionnaire used in this study was piloted, tested, and revised to ensure its validity and reliability. In so doing, the questionnaire items were given to the experts from the Institute of Pedagogical Sciences. Based on the comments provided by the experts some amendments were made to make the items clear and relevant.

A questionnaire, both close-ended and open-ended type, was designed to gather data from HDP graduates. The questionnaire incorporated a 5-point Likert scale in which participants were asked to rate items with a score of 5 (strongly agree) to 1 (strongly disagree). It helps to rate a group of individuals in descending or ascending order with respect to their perception towards the issues

in question (Gay et al.,2012).To determine the reliability of the self-prepared questionnaire, the author made use of Cronbach's alpha (α) to check the internal consistency and average correlation of the 26 items in the survey instrument. The overall coefficient score was found to be 0.823 which can be regarded as an acceptable score. By so doing, the questionnaire was administered to 80 HDP graduates (instructors), out of these 77 (96%) able to return a completed questionnaire.

To assess the effectiveness of HDP training, interviews were conducted with HDP leaders and coordinators. Collecting qualitative data enabled the researcher to explore more information about the effectiveness and associated challenges of HDP at Mekelle University. Because it helps to understand the perceptions, feelings, and knowledge of people in the program through in-depth interviewing (Leedy &Ormrod, 2005). The interview guides were developed by the researcher based on a handbook of higher diploma and literature on HDP that was focused on the effectiveness of the program. The semi-structured interviews were held with five HDP leaders/tutors, and one program coordinator. The interviewees were coded as Leader 1 to Leader 5(L1 –L5). Moreover, program-related documents such as leaders' and tutors' guidelines, trainee's handbook, and graduate's portfolio were also analyzed.

The study employed both descriptive and inferential statistics to analyze the obtained data. Descriptive statistics were used to describe the characteristics of the sample or a combination of variables (Creswell, et al, 2008). A comparison of the scores was done using the one–way ANOVA. Moreover, percentage, mean and standard deviations were employed to analyze the quantitative data. Furthermore, thematic data analysis method was employed to analyze the qualitative data.

Results and Discussions

This section analyses the data obtained through questionnaire, interview, and document analysis. It also discusses the findings in light of extant literature on the research topic.

Characteristics of Respondents

Table 2: *Demographic Characteristics of Respondents*

		Sex of Respondents					
		Male		Female		Total	
SN	Variables	N	%	N	%	N	%
1	Sex	54	70.1	23	29.9	77	100
2	Work experience						
	3-5 years	28	36.36	17	22.1	45	58.46
	6-8 years	12	15.58	6	7.79	18	23.37
	9-12 years	6	7.79	0	0	6	7.79
	13-15 years	3	3.89	0	0	3	3.9
	Above 15 years	5	6.49	0	0	5	6.49
3	Academic Rank						
	Assistant lecturer	8	10.38	9	11.7	17	22.08
	Lecturer	37	48.05	14	18.2	51	66.23
	Assistant professor	9	11.68	0	0	9	11.68

As indicated in Table 2, 54 (70.1%) of the participants were male and 23 (29.9%) of them were females. This composition has similarities with the male and female academic staff at the universities which was reported to be 1707 (80%) and 427 (20 %) male and females, respectively.

As depicted in item 2 of Table 2, 63 (81.8 %) of the participants' work experience is below eight years. This implies that the academic staffs are junior and thus the training is likely to provide insights to the junior academics as they have limited experience of working as teachers

Finally, item 3 of Table 2 depicts the academic rank of the graduates. Accordingly, 51(66.23 %) of the participants were lecturers followed by assistant lecturers 17 (22.08 %), and the remaining 9 (11.68 %) were assistant professors. This implies that, although the MoE´s guideline stipulated HDP training is compulsory for all academic staff, considerable numbers of academic staff did

not take the training. As per the annual report of the university, in 2019/20 there were about 2,134 academic staff, but only 946 teachers completed HDP between 2011 and 2018/19. Hence, it seems that participation in the training is perceived as optional rather than compulsory.

HDP Graduates' Satisfaction with the HDP Training- Reaction

The HDP graduates' satisfaction has an indispensable role in the implementation of the training programs. Although a positive reaction does not assure learning and achievement, a negative reaction is likely to reduce trainees' commitment to implementing the knowledge and skills learned in the actual teaching and learning activities.

Table 3: *HDP Graduates' Satisfaction on the HDP Training- Reaction*

SN	Items		Scales					Average Mean	Std. D.
			5	4	3	2	1		
1	Most of what I have learned is useful to my job responsibilities	No.	36	33	6	1	1	4.32	0.78
		%	46.75	42.86	7.79	1.30	1.30		
2	The leaders have sufficient knowledge & expertise.	No.	19	46	11	1	0	4.07	0.66
		%	24.68	59.74	14.29	1.30	0.00		
3	The leaders were responsive in respect of the trainees needs	No.	16	54	6	1	0	4.10	0.57
		%	20.78	70.13	7.79	1.30	0.00		
4	I like and enjoy the HDP training.	No.	23	33	11	10	0	3.89	0.98
		%	29.87	42.86	14.29	12.99	0.00		
5	The training resources were appropriate to achieve the training objectives	No.	9	34	23	11	0	3.53	0.88
		%	11.69	44.16	29.87	14.29	0.00		
	Average aggregate weighted mean score and SD							3.98	0.77

Level of Agreement: (< 1.49=strongly disagree); (1.5 – 2.49=disagree); (2.5 -3.49=neutral/undecided); (3.5 – 4.49=agree); (4.5 – 5.0=strongly agree)

As shown in Table 3, the mean score of respondents for all items was above the expected mean score (3.0) indicating that the HDP graduates agreed on their satisfaction with the training. However, comparing the five items of the satisfaction of the graduates towards the appropriateness of the training materials was found lower than the other items.

Contrary to this, findings from interviews and document review indicated inconsistent results. All interviewed leaders confirmed that the majority of the trainees lack interest in the training. This was manifested by coming late to the HDP sessions; inexcusable absenteeism; lower engagement in making reflections; unjustifiable withdrawal; delay and negligence of work in the submission of assignments. To triangulate this finding graduates' portfolios and attendance were also reviewed. Accordingly, most of the graduates' portfolios were not completed and the efficiency rate of the graduates in terms of attendance was found below 90% for 2017/8 and 2018/2019, against requirements stated in the handbook for HDP (see, MoE, 2018)

The interest of trainees also varied within the training duration. Supporting this, an HDP leader (L1) mentioned:

> *As I have observed, the majority of graduates initially showed a moderate interest in the training. This interest improved in the middle of the training but deteriorated by the end. Additionally, as a leader, even we ourselves were not motivated.* (L1, June 2021).

Another interviewee supported L1 by saying:

> *There are two types of graduates: those who attend the training to fulfill a requirement and those who seek to gain new knowledge and skills. Consequently, those attending for the requirement purpose show less interest in the training compared to the others. During the initial sessions, this was a significant challenge for us in terms of engaging them effectively.* (L2, June 2021).

This implies that the interest of the trainees tends to decline with a lapse of time. Besides, it was possible to note that it is not the need for the knowledge and skill in pedagogies that derive the trainees to be enrolled and attend the HDP training, but also the fear of coercive introduction of measures that may inculcate in the key academic needs and career structure.

As far as the training resources were concerned, the respondents showed slight agreement with a mean value of 3.53, and 43 (55.7%) respondents agreed on the appropriateness of the resources. The interviewed HDP leaders have also mentioned that there is a lack of training facilities. Moreover, opinions from the open-ended questions indicated that the contents of the HDP handbook are context-blind, despite the candidates coming from various academic disciplines. This finding matches with previously published research that asserted the HDP handbook was not crafted in line with the disciplinary backgrounds of the trainees (Garkebo & Anwar, 2019).

Knowledge and Skills Gained: Learning

The learning level considers the trainee's satisfaction with the skills, knowledge, and attitude that HDP graduates gained from the HDP training.

Table 4: *Knowledge/Skills Gained- Learning*

SN	Items		Scales					Average Mean	Std. D.
			5	4	3	2	1		
1	I learn what was intended to be taught.	No.	13	52	11	1	0	4.00	0.61
		%	16.88	67.53	14.29	1.30	0.00		
2	There is improvement in terms of my performance after the training,	No.	14	48	12	2	1	3.94	0.75
		%	18.18	62.34	15.58	2.60	1.30		
3	The training enabled me to acquire the required knowledge.	No.	19	34	19	5	0	3.87	0.86
		%	24.68	44.16	24.68	6.49	0.00		
4	The training enabled me to master the skills required for teaching profession.	No.	25	35	10	7	0	4.01	0.91
		%	32.47	45.45	12.99	9.09	0.00		
5	I acquired a deeper understanding of the training modules by participating therein.	No.	13	37	20	7	0	3.73	0.85
		%	16.88	48.05	25.97	9.09	0.00		
Average aggregate weighted mean score and SD								3.86	0.79

Level of Agreement: (< 1.49=strongly disagree); (1.5 – 2.49=disagree); (2.5 – 3.49=neutral/undecided); (3.5 – 4.49=agree); (4.5 – 5.0=strongly agree)

As can be seen from Table 4, the respondents agreed on the knowledge and skills acquired from the training (M=3.86 and SD=0.79). Moreover, the mean value of each item in the table is above average, indicating that the respondents agree on the amount of knowledge and skills gained from the HDP training. This shows that the graduates acquired the necessary knowledge and skills from the training.

The data obtained through interviews also revealed similar results. The interviewed HDP leaders and a coordinator unanimously attested that the topics included in the modules are sufficient and relevant for equipping the trainees with additional knowledge and skills important for the teaching-learning process, provided the trainees are interested and ready to acquire them. In line with these issues, an interviewee said that:

> *As to my understanding and knowledge, the topics included in the module are relevant and enough to achieve the expected objectives of the training, as long as the trainees are interested and committed to attending the training programs from beginning to end. However, this does not mean any need for improvement at all (L4, June 2021).*

The other interviewee (L5) also stated that:

> *The four topics included in the module are helpful for trainees to acquire sufficient knowledge, become reflective teachers, apply continuous assessment, and engage in action research. However, a significant number of trainees lacked interest in the training, which posed a problem in achieving these objectives.* (L5, June 2021).

Application of the Training-Behavior

The third level, behavior outlines the relationship between learning and application of what has been learned.

Table 5: *Application of the Training in the Workplace - Behavior*

SN	Items		Scales					Average	
			5	4	3	2	1	Mean	Std. D.
1	I acquired sufficient knowledge that helps me in teaching-and learning.	No.	12	44	14	6	1	3.7792	0.8526
		%	15.58	57.14	18.18	7.79	1.30		
2	There is a noticeable change in my job performance.	No.	6	39	22	9	1	3.5195	0.8524
		%	7.79	50.65	28.57	11.69	1.30		
3	I am applying the best use of the skills I learned in HDP training	No.	9	36	20	12	0	3.5455	0.89656
		%	11.69	46.75	25.97	15.58	0.00		
4	I am able to transfer my new knowledge, skills, or attitudes to other people.	No.	11	38	15	12	1	3.5974	0.96327
		%	14.29	49.35	19.48	15.58	1.30		
5	I am able to use collaborative learning	No.	13	34	16	12	2	3.5714	1.03146
		%	16.88	44.16	20.78	15.58	2.60		
Average aggregate weighted mean score and SD								3.6	0.92

Level of Agreement: *(< 1.49=strongly disagree); (1.5 – 2.49=disagree); (2.5 – 3.49=neutral/undecided); (3.5 – 4.49=agree); (4.5 – 5.0=strongly agree)*

Table 5 demonstrates respondents' reactions to the items illustrating their behavior after receiving HDP training. Regarding the perception of HDP graduates about applying the training in the workplace (item 1), 44 respondents (57.14%) agreed, and 12 (15.58%) respondents strongly agreed that they acquired sufficient knowledge that help them in the teaching-learning process. Table 5 demonstrates respondents' reactions to the items that illustrate their behavior after getting HDP training. As far as the perception of the HDP graduates to the application of the training in the workplace was concerned (item 1), 44 (57.14%) and 12 (15.58% 12) of the respondents rated as agree and strongly agree respectively. On the other hand, 14 (18.18%) respondents were neutral, and 7 (9.1%) respondents rated as disagreed. Regarding noticeable changes and the application of skills gained from the training, 45 (58.44%) respondents expressed beyond strong agreement level. However, 32 (41.56%) respondents rated the item below neutral.

Thus, despite the slight difference in ratings, the cumulative mean value (M=3.6, SD=0.92) indicated that the respondents agreed with the items presented.

Table 6: *One Way-ANOVA for Differences Regarding Application of HDP Training Among the Graduates*

SN	Items		Sum of Squares	df	Mean Square	F	Sig.
1	I acquire sufficient knowledge that helps me in teaching	Between Groups	1.456	2	0.728	1.001	0.372
		Within Groups	53.791	74	0.727		
		Total	55.247	76			
2	There is noticeable change in my performance	Between Groups	4.881	2	2.440	3.587	0.033
		Within Groups	50.340	74	0.680		
		Total	55.221	76			
3	I am applying the best use of skills I learned	Between Groups	3.209	2	1.604	2.051	0.136
		Within Groups	57.882	74	0.782		
		Total	61.091	76			
4	I am able to transfer my new knowledge, attitude and skills to other people	Between Groups	5.709	2	2.855	3.259	0.044
		Within Groups	64.810	74	0.876		
		Total	70.519	76			
5	I am able to use collaborative learning	Between Groups	4.034	2	2.017	1.943	0.151
		Within Groups	76.824	74	1.038		
		Total	80.857	76			

Significant at 0.05 level.

As indicated in Table 6, a one-way ANOVA was employed to examine the differences among the HDP graduates in terms of their academic rank. A statistically significant difference was found in the improvement of their performance. (df 2, 74, F=3.587, p = 0.033< 0.05) and knowledge transfer (df 2, 74, F=3.259, p= 0.044< 0.05). However, no significant differences were observed among the HDP graduates regarding acquiring sufficient knowledge, applying the best use of acquired skills, and using collaborative learning.

Further statistical analysis of Tukey-HSD was used in order to see major differences in the application of HDP training among the different academic ranks. The perception of assistance lecturers regarding noticeable performance improvement (p=0.515>0.05 and p= 0.279>0.05) and knowledge transfer (p= 0.69>0.05 and p=0.227>0.05) do not differ from those of the lecturer and assistance professors. However, the perception of lecturers was significantly different from those of assistant lecturers and assistant professors in both variables (p= 0.029< 0.05 and p = 0.036< 0.05). That is, the cumulative mean score of lecturers (M=4.02) was greater than that of the assistant professor (M=3.73), indicating that lecturers were found to be better than the assistant professors in applying the HDP training in their workplace.

Achievement of HDP Training Objectives

This level measures the success of the training program in terms of the improved quality of the overall teaching-learning process.

Table 7: *Achievement of HDP Training Objectives - Result*

SN	Items: The HDP training ….		Scales 5	4	3	2	1	Average Mean	Std. D.
1	Has helped me to improve my active learning skills.	No.	12	38	21	6	0	3.73	0.82
		%	15.58	49.35	27.27	7.79	0.00		
2	Has helped me to improve my action research skills.	No.	10	35	15	14	3	3.45	1.09
		%	12.99	45.45	19.48	18.18	3.90		
3	Has raised my job performance level	No.	2	47	20	7	1	3.54	0.75
		%	2.60	61.04	25.97	9.09	1.30		
4	Was successful in meeting the expected goals	No.	6	35	27	8	1	3.48	0.83
		%	7.79	45.45	35.06	10.39	1.30		
5	Has improved my teaching and learning quality.	No.	9	34	25	8	1	3.54	0.88
		%	11.69	44.16	32.47	10.39	1.30		
	Average aggregate weighted mean score and SD							3.55	0.87

Level of Agreement: (< 1.49=strongly disagree); (1.5 – 2.49=disagree); (2.5 – 3.49=neutral/undecided); (3.5 – 4.49=agree); (4.5 – 5.0=strongly agree)

Table 7 shows the perception of HDP graduates towards the achievement of HDP objectives. Accordingly, more than half of the respondents showed their agreement regarding the contribution of HDP in improving their active learning and action research skills respectively. Similar to this finding, Stuart et al. (2010) found that the HDP training enabled teachers to improve their action research and teaching skills. Contrary to this finding, 27 (35.07 %) and action research skills 32 (41.56 %) were rated as neutral and disagreed with the item on improvement in active learning skills.

As to the perception of the graduates about the enhancement of their job performance due to HDP training (item 3), 49 (63.64 %) and 20 (25.97%) of the graduates agreed and neutral respectively, while the remaining 8 (10.12 %) disagreed to the item presented.

As to the extent of achieving the desired goals and enhancement of teaching and learning quality, about half of the graduates have agreed. Conversely, 9 (11.69 %) of the respondents disagreed, one-third of the graduates' perception regarding meeting the desired goals and enhancing learning quality through the HDP training was found neutral or undecided. In conclusion, the cumulative mean of 3.55 indicated that the graduates' perception towards the overall achievement of HDP training objectives was found slightly above neutral. Hence, it can be

inferred that the better satisfaction towards the training was not reflected in the application of the knowledge and skills obtained from the training, this in turn adversely affects the achievement of HDP objectives.

The interviewed leaders affirmed that they do not believe that the desired objectives of the HDP were achieved as depicted in the manual. They elaborated that the lack of candidates' interest and commitment in the training session, hesitation to complete school/organizational placement, and action research were some of the manifestations reflected during the training events.
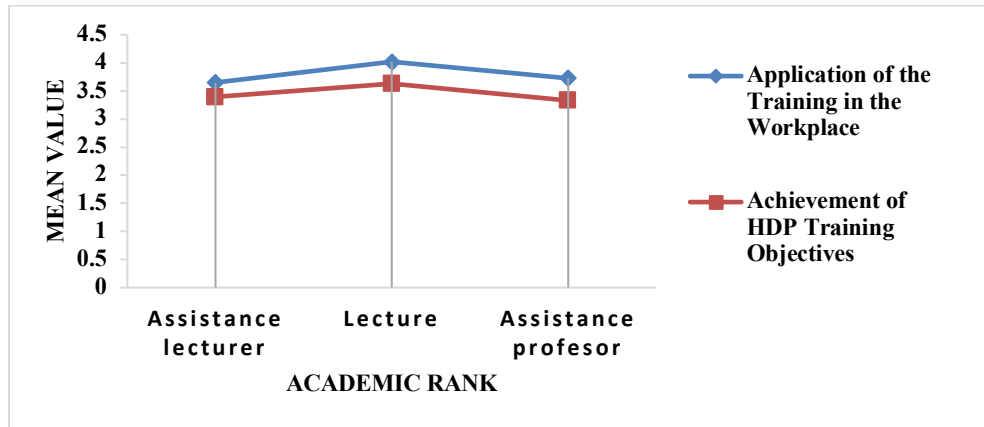
Figure 1: *Application and Achievement of HDP Training*

Figure 1 shows that the cumulative mean score of lecturers (M=4.02) is greater than that of the assistant lecturer (M=3.65) and assistant professor (M=3.73) in terms of the application and achievement of HDP training. This tends to reveal that lecturers were found to be better than the assistant lecturers and assistant professors in applying the HDP training in their workplaces. Similarly, the cumulative mean score of lecturers (M=3.63) is slightly greater than that of the assistant lecturer (M=3.39) and assistant professor (M=3.33) in terms of achievement. These findings imply that the perception of lecturers concerning the application and achievement of objectives of HDP is better than the assistant lecturers and assistant professors.

Barriers to Effective Implementation of HDP

Both HDP graduates and leaders believe that there appear to be possibilities for implementing HDP training in the university. But, in reality, there are also barriers to its implementation.

Table 8: *Barriers to Effective Implementation of HDP*

SN	Items	N	Mean	SD
1	Too large class size	77	3.2078	1.21761
2	Too large course content	77	3.8052	1.13600
3	Heavy Teaching workload	77	3.7403	1.09307
4	Lack of continuous seminars and workshops	77	3.7532	1.12573
5	Students unpreparedness for active learning teaching methods	77	3.7013	1.03955
6	Lack of administrative follow-up	77	3.2987	1.26766
	Cumulative mean and SD		3.58	1.37

Table 8 shows barriers to the effective implementation of HDP. Bulky course contents with a mean value (M=3.8, SD=1.37) were found to be the major problem for implementation, followed by a lack of seminars and workshops, heavy teaching workload, and lack of students' interest. The present findings were consistent with those of Stuart et al. (2010), MoE (2008), Atnafu (2018), and Garkebo and Anwar (2019), who reported that a high workload and lack of follow-up by administrators were significant challenges in implementation. In addition, respondents who participated in the open-ended questions stated that the classrooms were unappealing and that classes were sometimes postponed due to a shortage of classrooms. This shortage was often due to the rooms being used for other purposes, such as exams and postgraduate classes. However, official documents from the Ministry of Education (2011; 2015) clearly stated that HDP sessions should not coincide with exams or regular classes.

On the other hand, as per the interview made with the HDP leaders and a coordinator, all of them argued that the most formidable barrier is the lack of incentive for the leaders/tutors. In relation to this finding one of the higher diploma leaders strongly claimed that "*as a leader/tutor, I am not happy to give training because there is no any incentive for the leaders/tutors. I am giving the training simply because I was assigned by the department*" (L5, June 2021). They added that the incentive mechanism in our university is different from other Higher Education Institutions, as HDP classes are summed up with regular class credit hours and treated as overload.

The other problems cited by most of the interviewed respondents were shortage of stationery materials, number of trainees in one class, lack of refreshments (tea and coffee), lack of rehearsal seminars and workshops, absence of monitoring and evaluation, lack of attention by the university, less value given for the certificates earned, and lack of practical classes. Moreover,

responses to an open-ended question indicated that the length of the training was cited as a major problem. As opposed to the graduate's perception, half of the interviewed leaders confirmed that bulky course content and heavy workload cannot be an obstacle to the implementation of HDP. Because these problems could not be a problem for using different varieties of active learning methods and conducting action research.

Conclusions and Implications

The study indicated both positive and negative results about the effectiveness of the HDP. Findings from the survey, interview, and document analysis indicated that the effectiveness of the HDP at Mekelle University was at a moderate level. The perception of graduates towards the first two levels (reaction and learning) was found high. However, when it comes to the knowledge and skill transfer (third level) and achievements of objectives (fourth level), the findings indicated somehow close to average. Hence, it is reasonable to conclude that the application of the training to the workplace and achievement of the HDP program objectives is not as expected. Overall, the findings call for continuous follow-up of the program from the university leaders.

Failure to achieve the desired objectives of HDP was basically attributable to a lack of motivation on the part of leaders/tutors, absence of additional workshops and seminars; workload, lack of students' interest, inadequate facilities and classrooms, and lack of attention from the university.

Finally, the findings of the study have implications for the development of the HDP in higher education institutions in Ethiopia. However, further in-depth research on the effectiveness of the HDP at the national level appears to be crucial.

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References

Adula, B. (2008). Application of higher diploma program training skills in classroom instruction: The case of education faculty, Jimma University (Ethiopia). *Ethiopian Journal of Education and Sciences*, *4*(1),51-72

Atnafu, M. (2018). Assessing the effects of Higher Diploma Program (HDP) training on the teaching-learning process in Assossa University. *Journal of Education and Practice,*9(31), 34-41

Ataklti, D.&Yilfashewa,S. (2020). Implementation of Higher Diploma Program in Mekelle University(Ethiopia): A CBAM Perspective *Journal of Educational and Behavioral Sciences,* 3(1), 1-18

Atnafu, M. (2018). Assessing the Effects of Higher Diploma Program (HDP) training on the teaching-learning process in Assossa University. *Journal of Education and Practice,* 9(31),34-41

Bartlett, J. E, Kotrlik, J. W., & Higgins, C.C.(2001). Organizational research: Determining appropriate sample size in survey research. *Journal of Information Technology,* Learning and Performance, 19(1),43-50

Creswell, J., Clark, V., Gutman, M. & Hanson, M., (2008). *Advanced mixed methods research* design. In The mixed methods reader, edited by V. Clark and J. Creswell, Los Angeles, CA: Sage.209–240, (2008).

Creswell, J. W. (2012). Educational research: Planning, conducting and evaluating research (4th Ed.). Boston: Pearson Education, Inc.

Creswell, J. & Creswell, D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches, Sage publications.

Demewoz, A. (2016). Effectiveness of higher diploma program for early career academics in Ethiopia. Studies in Higher Education, 41(10), 1741-1753.

Garkebo, B. & Anwar, A.(2019). Practices and Challenges of Higher Diploma Program Implementation in Cluster Satellites of Haramaya University, Ethiopia. Bahir Dar Journal of Education, 19(2), 175-197.

Gay, L. R., Mills, G. E., &Airasian, P. W. (2012). Educational research: Competencies for analysis and applications. Pearson.

Jula,K.& Shimelis,A.(2018).Determining the impact of Higher Diploma Program on the education Quality: The case of Ethiopian Institute of Textile and Fashion Technology(EiTEX).Bahir Dar University. International Journal of Mathematics And its Applications, 7(1), 69-83

Kirkpatrick, D. (1996). Great ideas revisited. Training & Development, 50(1), 54-60.

Kotrlik, J. & Higgins, C. (2001). Organizational research: Determining appropriate sample size in survey research appropriate sample size in survey research. Information technology, learning, and performance journal, 19(1), 43.

Leedy, P.D &Ormond, J.E (2005). Practical Research Planning and Design (8thED). New Jersey: Pearson Prentice Hall.

Mekelle University (2019). HDP Graduates Book List. IPS, HDP Coordinator Office.
         Unpublished

Mills, G. & Gay, L. (2016). Educational Research Competencies for Analysis and Applications
         (11thed.). Pearson Education Limited. England

Ministry of Education (MoE). (2003). Teacher Education System Overhaul
         handbook. Unpublished policy document. Addis Ababa: Ethiopia.

------(2011).Higher Diploma Program for Teacher Educators. Addis Ababa, Ethiopia.

------*(2015).* Higher Diploma Program Guidelines for the Delivery and Moderation of the
         program. Addis Ababa, Ethiopia

-----(2018).Handbook for Professional Training of Academic Staff in Higher Education
         Institutions (HDP), Addis Ababa, Ethiopia

Stuart R. Monroe, Rakesh, K.&Aklilu,H. (2010).Attitudes and Implementation Barriers. HDP
         Teachers Education Program at Axum University. Available
         http//:aabri.com/SASA12125 (unpublished)