CHAPTER IV
RESULT AND
INTERPRETATION
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4.0.0 INTRODUCTION

The methodology followed in conducting the present study has been given in detail in the previous chapters. In the present chapter the statistical techniques used for analyzing the data have been presented along with the result and their interpretations. This has been done objective wise in following captions.

4.1.0 EFFECTIVENESS OF M-KNOWLEDGE MANAGEMENT IN TERMS OF PEDAGOGIC PERFORMANCE

The first objective of the study was to know M-Knowledge Management (M-KM) in terms of Pedagogic Performance of teacher trainees. To measure M-KM in terms of Pedagogic Performance two tools namely Teacher Performance Questionnaire and Teaching Assessment Scale were administered. Teachers Performance Questionnaire was administered among teacher trainees and the Teaching Assessment Scale among school students. The data analyzed separately for the stated scores & the results interpretations are given in the table 4.1.

Table: 4.1. Summary of mean, SD & CV for M-KM in terms of Pedagogic Performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Performance</td>
<td>105.23</td>
<td>10.80</td>
<td>10.26</td>
</tr>
<tr>
<td>Teaching Assessment</td>
<td>107.92</td>
<td>8.42</td>
<td>7.80</td>
</tr>
</tbody>
</table>
From the table 4.1. It is evident that the mean score of Pedagogic Performance through TPQ is 105.23 which is above 80 percent. The standard deviation is 10.80 and coefficient of variance is 10.26 which shows moderate level of variance in pedagogic performance.

The mean of Pedagogic Performance through TAS is 107.92 which is above 89 percent. The standard deviation is 8.42 and coefficient of variance is 7.8 which shows less variance in pedagogic performance. Therefore, it can be concluded that both teacher trainees and school students reveal M-KM program is effective in terms of pedagogic performance.

4.2.0 EFFECT OF M-KNOWLEDGE MANAGEMENT ON PEDAGOGIC PERFORMANCE

The second objective was to study the effect of M-Knowledge Management on Pedagogic Performance. To measure the effect of M-Knowledge Management on Pedagogic Performance; M-Knowledge Management Inventory, Teacher Performance Questionnaire and Teaching Assessment Scale were administered. The Pedagogic Performance was measured through Teacher Performance Questionnaire and Teaching Assessment Scale. The results are given separately in the following captions.

4.2.1. Effect of M-Knowledge Management on Pedagogic Performance (Through TPQ)

The effectiveness of M-Knowledge Management was measured through Pedagogic Performance. To assess the M-Knowledge Management & Pedagogic Performance of teacher trainees, M-Knowledge Management Inventory and Teacher Performance Questionnaire were administered. The score of M-Knowledge Management effect on Pedagogic Performance were analyzed through t-test the result is presented in Table 4.2
Table 4.2 Summary of mean, SD and t-value for Pedagogic Performance (through TPQ)

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low M-KM Pedagogic Performance</td>
<td>98.27</td>
<td>11.54</td>
<td>5.83**</td>
</tr>
<tr>
<td>High M-KM Pedagogic Performance</td>
<td>112.06</td>
<td>5.07</td>
<td></td>
</tr>
</tbody>
</table>

N=52
df=50

**sig at 0.01 level

From table 4.2 it is evident that the t-value for pedagogic performance is 5.83 which is significant at 0.01 level with df = 50. This indicates that Pedagogic Performance in respect to high M-knowledge management is significantly different than low M-Knowledge Management. In this context the null hypothesis, namely, the high M-KM pedagogic performance is not significantly different from low M-KM pedagogic performance is rejected. Further, the mean score of Pedagogic Performance in respect to high M-KM is 112.06 which is significantly higher than the mean score of low M-KM which is 98.27. It may, therefore be said that teacher trainees with high M-KM was found to facilitate higher pedagogic performance. The high & low M-Knowledge Management effect on Pedagogic Performance is presented through the following graph.
From graph 4.1 it can be seen that the treatment affect the pedagogic performance of teacher trainees. The teacher trainees with high M-KM possessed higher Pedagogic Performance as compare to teacher trainees with low M-KM. But the treatment minimizes the difference between low and high M-KM pedagogic performance.

4.2.2. Effect of M-Knowledge Management on Pedagogic Performance (Through TAS)

The Teacher Trainees’ Pedagogic Performance was assessed by the school students with the administration of M-Knowledge Management Inventory & Teaching Assessment Scale. The data in respect to effect of M-Knowledge Management on Pedagogic Performance were analyzed through t-test and the result is presented in Table 4.3.
Table 4.3 Summary of mean, SD and t-value for Pedagogic Performance (through TAS)

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low M-KM Pedagogic Performance</td>
<td>101.33</td>
<td>8.52</td>
<td>6.47**</td>
</tr>
<tr>
<td>High M-KM Pedagogic Performance</td>
<td>112.75</td>
<td>3.90</td>
<td></td>
</tr>
</tbody>
</table>

N=52  
df=50  

**sig at 0.01 level

From table 4.3 it is evident that the t-value for Pedagogic Performance is 6.47 which is significant at 0.01 level with df = 50. It indicates that the mean score of teacher’s performance in respect to high M-Knowledge Management was significantly different than low M-Knowledge Management. In this context the null hypothesis, namely, the high MKM pedagogic performance is not significantly different then low MKM-pedagogic performance is rejected. Further, the mean score of Pedagogic Performance with high M-KM is 112.75 which is significantly higher than the mean score of Pedagogic Performance with low M-KM which is 101.33. It may therefore be said that M-Knowledge Management has significant effect Pedagogic Performance.
From graph 4.2, it is evident that the treatment effect the Pedagogic Performance of teacher trainees. The teacher trainees with high M-KM possess higher Pedagogic Performance as compare to teacher trainees with low M-KM. But the treatment minimizes the difference between low and high M-KM pedagogic performance.

4.3.0 EFFECT OF M-KNOWLEDGE MANAGEMENT, RESIDENTIAL BACKGROUND AND THEIR INTERACTION ON PEDAGOGIC PERFORMANCE

The third objective was to study the effect of M-Knowledge Management, Residential Background and their interaction on pedagogic performance. The effect of M-Knowledge Management, Residential Background and their interaction on Pedagogic Performance was assessed by administration of M-Knowledge Management Inventory, Teacher Pedagogic Performance and Teaching Assessment Scale. The two categories of residential background were rural and urban and for M-Knowledge Management were
high and low. The data were analyzed with the help of factorial design ANOVA for the stated criteria. The results followed by interpretations are given in separate captions as follows.

4.3.1 Effect of M-Knowledge Management, Residential Background and Their Interaction on Pedagogic Performance (Through TPQ)

As mentioned earlier the effect of M-Knowledge Management, Residential Background and their interaction on Pedagogic Performance was measured by administration of M-Knowledge Management Inventory and Teacher Performance Questionnaire. The two levels of M-Knowledge Management were high and low and two Categories of residential background were rural and urban. The data were analyzed with the help of 2 x 2 factorial design ANOVA. The result of the effect of M-knowledge Management on Pedagogic Performance (through TPQ) is presented in table 4.4

Table 4.4 Summary of Factorial Design ANOVA for M-KM & Residential Background on Pedagogic Performance (Through TPQ)

(N=52)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Knowledge Management (A)</td>
<td>1</td>
<td>1439.419</td>
<td>1439.419</td>
<td>26.067***</td>
</tr>
<tr>
<td>Residential Background (B)</td>
<td>1</td>
<td>711.880</td>
<td>711.880</td>
<td>12.891**</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>185.117</td>
<td>185.117</td>
<td>3.352</td>
</tr>
<tr>
<td>Error</td>
<td>48</td>
<td>2650.530</td>
<td>55.219</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>592778.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***Significant at 0.01 level

The data analysis of M-Knowledge Management, Residential background and their interaction on Pedagogic Performance was done with the help of factorial design
ANOVA. The results followed by their interpretations are given in the following captions

4.3.1.a Effect of M-Knowledge Management

on Pedagogic Performance

From the table 4.4 it can be observed that the F-value for M-Knowledge Management is 26.067 which is significant at level 0.01 with df =1/48. It reflects that M-Knowledge Management significantly effect Pedagogic Performance. In this context, the null hypothesis that ‘there is no significant effect of M-Knowledge Management on m-Pedagogic Performance amongst teacher trainees, is rejected.

Further the mean of pedagogic performance in context to high M-KM amongst teacher trainees is found to be 111.00 which is significantly higher than that of teacher trainees pertaining low M-KM which is 99.39. It may, therefore be said that the pedagogic performance amongst teacher trainees is significantly effected by M-KM.

4.3.1.b Effect of Residential Background

on Pedagogic Performance

From the table 4.4 the F-value for Residential Background is 12.891 which is significant at 0.01 level with df = 1/48 (Vide Table 4.4). It indicates that the mean score of pedagogic performance among rural and urban teacher trainees differ significantly. It may be said that the Residential Background influences the Pedagogic Performance of teacher trainees. In this light, the null hypothesis that there is no significant effect of Residential Background on pedagogic performance of teacher trainees is rejected.

Further the mean of pedagogic performance among urban teacher trainees is 109.27 which is significantly higher than the mean of pedagogic performance among rural teacher trainees which is 101.11. It may therefore, be concluded that pedagogic
performance is dependent on Residential Background. The effect of Residential Background on Pedagogic Performance is plotted on graph 4.3.

Graph 4.3 Effect of Residential Background on Pedagogic Performance (through TPQ)

From graph 4.3. It can be seen that teacher trainees belonging to Urban Residential Background perform better than those belonging to Rural Residential Background. But the difference in rural and urban teacher trainees having high pedagogic performance is less than the urban & rural teacher trainees with low Pedagogic Performance which is more.
4.3.1.c Effect of Interaction Between M-Knowledge Management and Residential Background on Pedagogic Performance

From the table 4.4 it is evident that the F-Value for interaction between M-KM and Residential Background is 3.35 which is not significant at 0.01 level with df = 1/48. It indicates that there was no significant effect of the resultant of interaction between M-KM and Residential Background on Pedagogic Performance amongst teacher-trainees. In light of this, the null hypothesis that there is no significant effect of MKM, Residential Background and its interaction on Pedagogic Performance, is not rejected. It may therefore be concluded that Pedagogic Performance is found to be independent of interaction between M-KM and Residential background.

4.3.2. Effect of M-Knowledge Management, Residential Background and Their Interaction on Pedagogic Performance (Through TAS)

The third sub objective is to study the effect of M-Knowledge Management, Residential Background and their interaction on Pedagogic Performance. The effect of M-Knowledge Management, Residential Background and their interaction on Pedagogic Performance has been assessed by administration of M-Knowledge Management Inventory and Teaching Assessment Scale. As mentioned earlier two levels considered for M-Knowledge Management are high and low. And two categories of Residential Backgrounds are rural and urban. The data have been analyzed with the help of 2 x 2 factorial design ANOVA. The result of the effect of M-knowledge Management on Pedagogic Performance is presented in table 4.5.
Table 4.5. Summary of Factorial Design ANOVA for M-KM & Residential Background on Pedagogic Performance (through TAS) (N=52)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Knowledge Management</td>
<td>1</td>
<td>1149.802</td>
<td>1149.802</td>
<td>33.70*</td>
</tr>
<tr>
<td>Residential Background</td>
<td>1</td>
<td>219.105</td>
<td>219.105</td>
<td>6.424*</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>115.348</td>
<td>115.348</td>
<td>3.382</td>
</tr>
<tr>
<td>Error</td>
<td>48</td>
<td>1637.267</td>
<td>34.110</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>609273.442</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level

The data analysis of M-KM, Residential background and their interaction on Pedagogic Performance is done with the help of factorial design ANOVA and the results followed are given in the following captions

4.3.2.a Effect of M-Knowledge Management on Pedagogic Performance

From the table 4.5 it can be observed that the F-value for M-Knowledge Management is 33.70 which is significant at 0.05 level with df= 1/48. It reflects that mean score of TAS Pedagogic Performance and M-Knowledge Management differ significantly. Thus there is significant effect of M-KM on Pedagogic Performance of teacher trainees. In this context, the null hypothesis that the mean scores of M-KM and Pedagogic Performance of teacher trainees are not significantly different is rejected.
Further the mean of pedagogic performance with high M-Knowledge Management skills were found to be 112.42 which is significantly higher than the mean of Pedagogic Performance with low M-Knowledge Management which is 102.04. It may therefore be said that the M-Knowledge Management effected the Pedagogic Performance.

4.3.2. b Effect of Residential Background on Pedagogic Performance

From the table 4.5 it can be observed that the F-value for Residential Background is 6.424 which is significant at 0.05 level with df=1/48. It indicates that the mean score of Pedagogic Performance among rural and urban teacher trainees differ significantly. Thus, Residential Background influences the Pedagogic Performance of teacher trainees. In this light, the null hypothesis that there is no significant effect of Residential Background on Pedagogic Performance is rejected.

Further the mean of Pedagogic Performance among urban background teacher trainees is found to be 109.49 which is significantly higher than the mean of pedagogic performance among teacher trainees belonging to rural background that is 104.96. It may therefore, be concluded that Pedagogic Performance is dependent on Residential Background. The result is presented in graph 4.4.
Graph 4.4 Effect of Residential Background on Pedagogic Performance (through TAS)

From graph 4.4 it can be seen that school students find teacher trainees belonging to Urban Residential Background perform better than those belonging to Rural Residential Background. Further the high Pedagogic Performance between rural & urban background is less differed than the low Pedagogic Performance which differed more between urban & rural teacher trainees.

4.3.2.3 Effect Of Interaction Between M-Knowledge Management and Residential Background on Pedagogic Performance

The F-Value for interaction between M-KM and Residential Background on Pedagogic Performance is 3.82 which is not significant at 0.05 level with df = 1/48. It indicates that there was a no significant effect of the resultant of interaction between M-KM and
Residential Background on Pedagogic Performance amongst teacher trainees. In light of this, the null hypothesis that there is no significant effect of interaction between M-KM and Residential Background on Pedagogic Performance is not rejected. This means that Pedagogic Performance is independent of interaction between M-KM and residential background.

4.4.0 EFFECT OF M-KNOWLEDGE MANAGEMENT, EDUCATIONAL BACKGROUND AND THEIR INTERACTION ON PEDAGOGIC PERFORMANCE

The fourth objective was to study the effect of M-Knowledge Management, Educational Background and their interaction on Pedagogic Performance. The effect of M-Knowledge Management, Educational Background and their interaction on Pedagogic Performance was measured by Administration of M-Knowledge Management Inventory, Teacher Performance Questionnaire and Teaching Assessment Scale. The two levels of M-KM were high and low. And the two Categories of Educational Backgrounds were Post-Graduate and Graduate level. The data of M-KM, Educational Background and their interaction on Pedagogic Performance were analyzed with the help of 2x2 factorial design ANOVA. The results followed are given in the following captions.

4.4.1 Effect of M-Knowledge Management, Educational Background and Their Interaction on Pedagogic Performance (through TPQ)

As mentioned earlier the effect of M-Knowledge Management, Educational Background & their interaction on Pedagogic Performance was assessed by administration of M-Knowledge Management Inventory and Teacher Performance Questionnaire. The two levels of M-Knowledge Management were high and low and the two categories of
educational backgrounds were graduate and post-graduate. The data obtained were analyzed with the help of 2 x 2 factorial design ANOVA. The result is given in Table 4.6.

Table 4.6 Summary of Factorial Design ANOVA for M-KM, Educational Background & their Interaction on Pedagogic Performance (through TPQ)

(N=52)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Knowledge Management</td>
<td>1</td>
<td>1221.506</td>
<td>1221.506</td>
<td>17.338***</td>
</tr>
<tr>
<td>Educational Background</td>
<td>1</td>
<td>129.519</td>
<td>129.519</td>
<td>1.838</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>94.819</td>
<td>94.819</td>
<td>1.346</td>
</tr>
<tr>
<td>Error</td>
<td>48</td>
<td>3381.652</td>
<td>70.451</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>592778.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***Significant at 0.01 level

The data analysis of M-KM, Educational Background and their interaction on Pedagogic Performance was done with the help of factorial design ANOVA. The results followed by their analyses are given in the following captions.

4.4.1.a Effect of M-Knowledge Management

on Pedagogic Performance

From the table 4.6 it can be observed that the F-value of M-Knowledge Management is 17.338 which is significant at level 0.01 with df = 1/48. It reflects that mean score of Pedagogic Performance in context to high M-KM and low M-KM differed significantly. This shows that M-KM have effect on Pedagogic Performance of teacher trainees. In this context, the null hypothesis that there is no significant effect of M-KM on Pedagogic Performance of teacher trainees is rejected.

Moreover, the mean of Pedagogic Performance of teacher trainees with high M-KM is found to be 112.08 which is significantly higher than the mean of Pedagogic Performance of teacher trainees belonging to low M-KM that is 100.50. It may therefore,
be concluded that Pedagogic Performance is dependent on M-KM. It may, therefore be said that M-KM have effect on the Pedagogic performance among teacher trainees.

4.4.1.b Effect of Educational Background

on Pedagogic Performance

The F-value of Pedagogic Performance in respect to Educational Background is 1.838 which is not significant. This indicates that the mean score of Pedagogic Performance of post-graduate and under graduate teacher trainees do not differ significantly. So Educational Background does not significantly effect the Pedagogic Performance of teacher trainees. In this light, the null hypothesis that there is no significant effect of Educational Background on Pedagogic Performance is not rejected. It may therefore, be concluded that Pedagogic Performance is independent of Educational Background.

4.4.1.c Effect of M-Knowledge Management,

Educational Background and Their Interaction on
Pedagogic Performance

The F-Value of effect of interaction between M-Knowledge Management and Educational Background on Pedagogic Performance is 1.346 which is not significant at 0.01 level with df = 1/48. It indicates that there is no significant effect of the resultant of interaction between M-Knowledge Management and Educational Background on Pedagogic Performance of teacher trainees. In light of this, the null hypothesis that there is no significant effect of interaction between M-Knowledge Management and Educational Background on Pedagogic Performance is not rejected. It may therefore be said that Pedagogic Performance amongst teacher trainees is found to be independent of interaction between M-Knowledge Management and Educational Background.
4.4.2 Effect of M-Knowledge Management, Educational Background and Their Interaction on Pedagogic Performance (through TAS)

The fourth sub objective was to study the effect of M-Knowledge Management, Educational Background and their interaction on Pedagogic Performance. The effect of M-Knowledge Management, Educational Background and their interaction on Pedagogic Performance was assessed by administration of M-Knowledge Management Inventory and Teaching Assessment Scale. Two levels of M-KM were high and low. And two categories of educational backgrounds were Post-Graduate and Graduate. The data obtained were analyzed with the help of 2 x 2 factorial design ANOVA. The results are given in table 4.7.

4.7 Summary of Factorial Design ANOVA for M-KM, Educational Background & their Interaction on Pedagogic Performance (through TAS)

(N=52)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Knowledge Management</td>
<td>1</td>
<td>975.872</td>
<td>975.872</td>
<td>24.222**</td>
</tr>
<tr>
<td>Educational Background</td>
<td>1</td>
<td>20.029</td>
<td>20.029</td>
<td>.497</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>29.997</td>
<td>29.997</td>
<td>.745</td>
</tr>
<tr>
<td>Error</td>
<td>48</td>
<td>1933.845</td>
<td>40.288</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>609273.442</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at 0.01 level

The data analysis of M-Knowledge Management, educational background and their interaction on Pedagogic Performance was done with the help of factorial design ANOVA. The results followed by their analysis are given in the following captions.
4.4.2. Effect of M-Knowledge Management on Pedagogic Performance

From the table 4.7 it can be seen that the F-value of M-Knowledge Management is 24.222 which is significant at level 0.01 with df=1/48. It reflects that mean score of Pedagogic Performance amongst teacher trainees with high M-KM and low M-KM differ significantly. Thus there is significant effect of M-KM on Pedagogic Performance of teacher trainees. In this context, the null hypothesis that there is no significant effect of M-KM on Pedagogic Performance of teacher trainees is rejected. Further the mean Pedagogic Performance of teacher trainees with high M-Knowledge Management is found to be 112.74 which is significantly higher than the mean of Pedagogic Performance of teacher trainees belonging to low M-Knowledge Management which is 102.38. It may therefore, be concluded that pedagogic performance is found to be dependent on M-Knowledge Management. It may, therefore, be said that M-Knowledge Management was found to effect the pedagogic performance amongst teacher trainees.

4.4.2. Effect of Educational Background on Pedagogic Performance

The F-value for Educational Background is .497 (Vide Table 4.7) which is not significant. It indicates that the mean score of Pedagogic Performance amongst teacher trainees belonging to post-graduate and under graduate educational background do not differ significantly. So Educational Background does not influence significantly the Pedagogic Performance of teacher trainees. In this light, the null hypothesis that there is no significant effect of Educational Background on Pedagogic Performance is not rejected. It may therefore, be concluded that pedagogic performance is found to be independent of Educational Background.
4.4.2. c Effect of M-Knowledge Management

Educational Background and Their Interaction on Pedagogic Performance

The F-Value for the interaction between M-Knowledge Management and Educational Background is .745 which is not significant at 0.01 level with df = 1/48. It indicates that there was no significant effect of the resultant of interaction between M-Knowledge Management and Educational Background on Pedagogic Performance of teacher trainees. In light of this, the null hypothesis that there is no significant effect of interaction between M-Knowledge Management and Educational Background on Pedagogic Performance is not rejected. It may therefore be said that interaction between Educational Background and M-Knowledge Management was not found to effect Pedagogic Performance amongst teacher trainees.

4.5.0 EFFECT OF M-KNOWLEDGE MANAGEMENT, LANGUAGE BACKGROUND AND THEIR INTERACTION ON PEDAGOGIC PERFORMANCE

The fifth objective was to study the effect of M-Knowledge Management, Language Background and their interaction on Pedagogic Performance. The effect of M-Knowledge Management, Language Background and their interaction on Pedagogic Performance was assessed by administration of M-Knowledge Management Inventory, Teacher Performance Questionnaire and Teaching Assessment Scale. The two levels of M-Knowledge Management were high and low and two categories of Language backgrounds were English medium and Hindi medium. The Pedagogic Performance was studied on the basis of teacher trainees’ assessment and as students’ feedback. The data obtained were analyzed with the help of 2 x 2 factorial design ANOVA. The results are given in following captions.
4.5.1 Effect of M-Knowledge Management, Language Background and their Interaction on Pedagogic Performance (Through TPQ)

As mentioned earlier the effect of M-Knowledge Management, Language Background and their interaction on Pedagogic Performance was assessed by administering M-Knowledge Management Inventory and Teacher Performance Questionnaire. The two levels of M-Knowledge Management were high and low and two categories of Language backgrounds were Hindi and English medium. The data obtained were analyzed with the help of 2 x 2 factorial design ANOVA. The results are given in table 4.8.

Table 4.8 Summary of Factorial Design ANOVA for M-Knowledge Management, Language Background & their interaction on Pedagogic Performance (through TPQ)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Knowledge Management</td>
<td>1</td>
<td>1168.276</td>
<td>1168.276</td>
<td>16.754**</td>
</tr>
<tr>
<td>Language Background</td>
<td>1</td>
<td>185.681</td>
<td>185.681</td>
<td>2.663</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>70.024</td>
<td>70.024</td>
<td>1.004</td>
</tr>
<tr>
<td>Error</td>
<td>48</td>
<td>3347.088</td>
<td>69.731</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>592778.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(N=52)

**Significant at 0.01 level

The data analysis of M-Knowledge Management, language background and their interaction on Pedagogic Performance was carried out with the help of factorial design ANOVA. The results and interpretations are given in the below:
4.5.1.a Effect of M-Knowledge Management on Pedagogic Performance

From the table 4.8 it can be seen that the F-value for M-Knowledge Management is 16.754 which is significant at level 0.01 with df=1/48. It reflects the mean score of Pedagogic Performance in context to high and low M-Knowledge Management differ significantly amongst teacher trainees. Thus there is significant effect of M-Knowledge Management on Pedagogic Performance of teacher trainees. In this context, the null hypothesis that there is no significant effect of M-Knowledge Management on Pedagogic Performance of teacher trainees is rejected. Moreover, the mean Pedagogic Performance of teacher trainees pertaining high M-Knowledge Management is found to be 111.95 which is significantly higher than the mean Pedagogic Performance of teacher trainees possessing low M-Knowledge Management which is 100.59. It may therefore, be concluded that M-Knowledge Management effected the Pedagogic Performance. It may, therefore be said that M-Knowledge Management is found to effect the Pedagogic Performance amongst teacher trainees.

4.5.1.b Effect of Language Background on Pedagogic Performance

As depicted in Table 4.8 the F-value for Language Background is 2.663 which is not significant. It indicates that the mean score of Pedagogic Performance of teacher trainees belonging to English as well as Hindi medium do not differ significantly. This indicates that Language Background does not influence significantly, the Pedagogic Performance among teacher trainees. In this light, the null hypothesis that there is no significant effect of Language Background on Pedagogic Performance is not rejected. It may therefore, be concluded that Pedagogic Performance is found to be independent of Language Background.
4.5.1.3 Effect of M-Knowledge Management, Language Background and their Interaction on Pedagogic Performance

As depicted in Table 4.8 the F-Value for interaction between M-Knowledge Management, Language Background and its interaction on Pedagogic Performance is 1.004 which is not significant at 0.01 level with df = 1/48. It indicates that there was no significant effect of the resultant of interaction between M-Knowledge Management and Language Background on Pedagogic Performance of teacher trainees. In light of this, the null hypothesis that there is no significant effect of interaction between M-Knowledge Management and language Background on Pedagogic Performance is not rejected. It may be therefore said that interaction between Language Background and M-Knowledge Management does not effect Pedagogic Performance amongst teacher trainees.

4.5.2 Effect of M-Knowledge Management, Language Background and Their Interaction on Pedagogic Performance (through TAS)

The fifth objective is to study the effect of M-Knowledge Management, Language Background and their interaction on Pedagogic Performance. The effect of M-Knowledge Management, Language Background and their interaction on pedagogic performance was assessed by administration of the tools M-Knowledge Management Inventory and Teaching Assessment Scale. The two levels of M-Knowledge Management were high and low. And the two categories of language backgrounds were English and Hindi medium. The data obtained were analyzed with the help of 2 x 2 factorial design ANOVA. The results are given in table 4.9
Table 4.9. Summary of Factorial Design ANOVA for M-KM, Language Background & their interaction on Pedagogic Performance (through TAS) (N=52)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>M- Knowledge Management</td>
<td>1</td>
<td>1139.582</td>
<td>1139.582</td>
<td>27.915**</td>
</tr>
<tr>
<td>Instructional Background</td>
<td>1</td>
<td>5.580</td>
<td>5.580</td>
<td>.137</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>1.412</td>
<td>1.412</td>
<td>.035</td>
</tr>
<tr>
<td>Error</td>
<td>48</td>
<td>1959.542</td>
<td>40.824</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>609273.442</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at 0.01 level

The data analysis of M-KM, language background and their interaction on pedagogic performance is done with the help of factorial design ANOVA and the results followed by their interpretations are given in the following captions.

4.5.2.a Effect of M-Knowledge Management on Pedagogic Performance

From the table 4.9 it can be observed that the F-value for M-Knowledge Management is 27.915 which is significant at 0.01 level with df=1/48. It reflects that mean score of Pedagogic Performance among teacher trainees with high and low M-KM differ significantly. Thus there is significant effect of M-KM on pedagogic performance of teacher trainees. In this context, the null hypothesis that there is no significant effect of M-KM on Pedagogic Performance of teacher trainees is rejected.

Further the mean of pedagogic performance of teacher trainees possessing high M-KM is found to be 112.67 which is significantly higher than the mean Pedagogic Performance of teacher trainees belonging to low M-KM that is 101.46. It may therefore, be concluded that Pedagogic Performance is found to be dependent on M-KM.
4.5.2.b Effect of Language Background on Pedagogic Performance

The F-value for Language Background is .137 (Vide Table 4.9) which is not significant. It indicates that the mean score of Pedagogic Performance of English and Hindi medium teacher trainees do not differ significantly. This indicates that language Background does not influence significantly, the Pedagogic Performance among teacher trainees. In this light, the null hypothesis that there is no significant effect of Language Background on Pedagogic Performance can't be rejected. It may therefore, be concluded that Pedagogic Performance is found to be independent of Language Background.

4.5.3.c Effect of M-Knowledge Management Language Background and Their Interaction on Pedagogic Performance

The F-Value for interaction between M-Knowledge Management and Language Background is .035 which is not significant at 0.01 level with df = 1/48. This indicates that there is no significant effect of the resultant of interaction between M-KM and Language Background on Pedagogic Performance of teacher trainees. In light of this, the null hypothesis that there is no significant effect of interaction between M-Knowledge Management and Language Background on pedagogic performance is not rejected. It may therefore be said that interaction between M-Knowledge Management and language background has not found to effect Pedagogic Performance amongst teacher trainees.
4.6.0 EFFECT OF M-KNOWLEDGE MANAGEMENT, 
TEACHER EFFECTIVENESS AND THEIR 
INTERACTION ON PEDAGOGIC PERFORMANCE

The sixth objective was to study the effect of M-Knowledge Management, Teaching Effectiveness and their interaction on Pedagogic Performance. Two levels of M-Knowledge Management were high and low. And the Teacher Effectiveness was high and low. The Pedagogic Performance was studied by administering M-Knowledge Management Inventory, Teacher Performance Questionnaire and Teaching Assessment Scale and Teacher Effectiveness Scale.

4.6.1 Effect of M-Knowledge Management, 
Teacher Effectiveness and Their 
Interaction on Pedagogic Performance (Through TPQ)

As mentioned earlier the effect of M-Knowledge Management, Teacher Effectiveness and their interaction on Pedagogic Performance was assessed by administering M-Knowledge Management Inventory, Teacher Performance Questionnaire, Teaching assessment Scale and Teacher Effectiveness Scale. The two levels of M-Knowledge Management were high and low and two categories of Teacher Effectiveness were high and low. The data obtained were analyzed with the help of 2 x 2 factorial design ANOVA. The results are given in table 4.10.
Table 4.10 Summary of Factorial Design ANOVA for M-KM, Teacher Effectiveness their interaction on Pedagogic Performance (through TPQ)

(N=52)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Knowledge Management</td>
<td>1</td>
<td>1173.675</td>
<td>1173.675</td>
<td>21.213**</td>
</tr>
<tr>
<td>Teacher's Effectiveness</td>
<td>1</td>
<td>653.496</td>
<td>653.496</td>
<td>11.811**</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>146.722</td>
<td>146.722</td>
<td>2.652</td>
</tr>
<tr>
<td>Error</td>
<td>48</td>
<td>2655.730</td>
<td>55.328</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>592778.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at 0.01 level

The data analysis of M-KM, teaching effectiveness and their interaction on pedagogic performance was done with the help of factorial design ANOVA and the results followed by their interpretations are given in the following captions.

4.6.1.a Effect of M-Knowledge Management on Pedagogic Performance

From the table 4.10 it can be observed that the F-value for M-Knowledge Management (M-KM) is 21.213 which is significant at 0.01 level with df=1/48. It reflects that mean score of Pedagogic Performance among teacher trainees in context to high and low M-KM differ significantly. Thus there is significant effect of M-KM on Pedagogic Performance of teacher trainees. In this context, the null hypothesis that there is no significant effect of M-KM on Pedagogic Performance of teacher trainee’s is rejected. It may, therefore be said that M-KM is found to effect the Pedagogic Performance among teacher trainees.
Further the mean Pedagogic Performance of teacher trainees possessing high M-KM is found to be 110.60 which is significantly higher than the mean of pedagogic performance of teacher trainees belonging to low M-KM that is 99.39. It may therefore, be concluded that Pedagogic Performance is found to be dependent on M-KM.

4.6.1.b Effect of Teacher Effectiveness
   on Pedagogic Performance

The F-value for Teacher Effectiveness is 11.81 which is significant at 0.01 with df = 1/48 (Vide Table 4.10). This indicates that the mean score of Pedagogic Performance among teacher trainees with low teacher effectiveness and high teacher effectiveness differ significantly. The Teacher Effectiveness influence Pedagogic Performance significantly, among teacher trainees. In this light, the null hypothesis namely that there is no significant effect of teacher effectiveness on Pedagogic Performance is rejected.

Further the mean score of Pedagogic Performance of teacher trainees pertaining high Teacher Effectiveness is 109.17 which is significantly higher than the mean of Pedagogic Performance of teacher trainees belonging to Low Teacher Effectiveness that is 100.81. It may therefore, be concluded that Pedagogic Performance depends on Teacher Effectiveness. It may therefore, be concluded that Teaching Effectiveness effect the Pedagogic Performance of teacher trainees which is plotted in the graph below 4.5.
From Graph 4.5 it is evident that Pedagogic Performance differs according to the levels of Teacher Effectiveness. But the scores of Pedagogic Performance amongst teacher trainees of high Teacher Effective from both M-KM categories was less differed, than the Pedagogic Performance of less Teacher Effectiveness where the difference was more.

4.6.1.6 Effect of M-Knowledge Management

Teacher Effectiveness and Their Interaction on Pedagogic Performance

The F-Value for interaction between M-Knowledge Management and Teacher Effectiveness is 2.265 which is not significant at 0.01 level with df = 1/48. It indicates
that there is no significant effect of the resultant of interaction between M-KM and teacher effectiveness on Pedagogic Performance of teacher trainees. In light of this, the null hypothesis that there is no significant effect of interaction between M-KM and Teacher Effectiveness on pedagogic performance is not rejected. It may therefore be said that interaction between M-KM and teacher effectiveness was found to have no effect on Pedagogic Performance amongst teacher trainees. This means that Pedagogic Performance was independent of interaction between M-Knowledge Management and Teacher Effectiveness.

4.6.2. Effect of M-Knowledge Management, Teacher Effectiveness and Their Interaction on Pedagogic Performance (Through TAS)

The sixth sub objective was to study the effect of M-Knowledge Management, Teacher Effectiveness and their interaction on Pedagogic Performance. The effect of M-Knowledge Management, Teacher Effectiveness and their interaction on pedagogic performance was measured by administration of M-Knowledge Management Inventory Teaching Assessment Scale and Teacher Effectiveness Scale. The two levels of M-KM were high and low. And the two categories for teacher effectiveness were high and low. The data obtained were analyzed with the help of 2 x 2 factorial design ANOVA. The results are given in table 4.11
Table 4.11 Summary of Factorial Design ANOVA for M-KM, Teacher Effectiveness their interaction on Pedagogic Performance (through TAS)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Learning Knowledge Management</td>
<td>1</td>
<td>994.599</td>
<td>994.599</td>
<td>29.112*</td>
</tr>
<tr>
<td>Teacher's Effectiveness</td>
<td>1</td>
<td>188.385</td>
<td>188.385</td>
<td>5.514*</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>103.269</td>
<td>103.269</td>
<td>3.023</td>
</tr>
<tr>
<td>Error</td>
<td>48</td>
<td>1639.894</td>
<td>34.164</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>609273.442</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*N*Significant at 0.05 level

The data analysis of M-KM, Teacher Effectiveness and their interaction on Pedagogic Performance was done with the help of factorial design ANOVA and the results followed by their interpretations are given in the following captions.

4.6.2. a Effect of M-Knowledge Management on Pedagogic Performance

From the table 4.11 it can be observed that the F-value for M-Knowledge Management (M-KM) is 29.112 which is significant at 0.05 level with df=1/48. It reflects that mean score of Pedagogic Performance among teachers trainees with high M-KM and low M-KM differ significantly. Thus there is significant effect of M-KM on Pedagogic Performance of teacher trainees. In this context, the null hypothesis that there is no significant effect of M-KM on Pedagogic Performance of teacher trainees is rejected.
Further the mean of Pedagogic Performance with high M-KM was 112.36 which is significantly higher than the mean of pedagogic performance with low M-KM that is 102.04. It may, therefore, be said that M-KM was found to effect the Pedagogic Performance among teacher trainees.

4.6.2.b Effect of Teacher Effectiveness on Pedagogic Performance

The F-value for teacher effectiveness is 5.514 (Vide Table 4.11) which is significant at level 0.05 with df=1/48. It indicates that the mean score of Pedagogic Performance with high teacher effectiveness and low teacher effectiveness differ significantly among teacher trainees. This indicates that teacher effectiveness influence significantly, the Pedagogic Performance among teacher trainees. In this light, the null hypothesis that there is no significant effect of teacher effectiveness on Pedagogic Performance is rejected.

Further the mean of pedagogic performance of teacher trainees pertaining high Teacher Effectiveness is found to be 109.44 which is significantly higher than the mean of pedagogic performance of teacher trainees belonging to Low Teacher Effectiveness that is 104.96. It may therefore, be concluded that Pedagogic Performance is found to be dependent on Teacher Effectiveness.
Graph 4.6 Effect of Teacher Effectiveness on Pedagogic Performance (through TAS)

From graph 4.6 it is evident that high Teacher Effectiveness performance is better than those belonging to low effective category. Moreover, the pedagogic performance amongst teacher trainees having high Teacher Effectiveness differ less than Pedagogic Performance amongst teacher trainees having low Teacher Effectiveness where the difference is more.

4.6.2. Effect of M-Knowledge Management

Teacher Effectiveness and Their Interaction on Pedagogic Performance

The F-Value for interaction between M-Knowledge Management (M-KM) and Teacher Effectiveness is 3.023 which is not significant at 0.05 level with df = 1/48. It indicates
that there is no significant effect of the resultant of interaction between M-KM and teacher effectiveness on Pedagogic Performance of teacher trainees. In light of this, the null hypothesis that there is no significant effect of interaction between M-KM and Teacher Effectiveness on the Pedagogic Performance is not rejected. It may therefore be said that Pedagogic Performance is found to be independent of the interaction between teacher effectiveness and M-KM.

4.7.0 TO STUDY THE CHANGE IN REACTION OF TEACHER TRAINEES TOWARDS M-KM PROGRAM

The seventh objective was to study the Change in Reaction of teacher trainees towards M-Knowledge Management (M-KM) program. To measure the Change in Reaction towards M-KM program, M-Knowledge Management Reaction scale was administered.

The participants of the experimental group were pre-tested and post-tested by administrating M-KM Reaction Scale. The subjects were assessed between and at the end of the Treatment. The data in respect to Change in Reaction towards M-KM Program were analyzed through correlated t-test and the result are presented in Table 4.12

Table 4.12 Summary of Mean, SD and correlated t-value for Change Reaction In reaction towards M-KM Program

<table>
<thead>
<tr>
<th>TESTING</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-TEST</td>
<td>48.86</td>
<td>4.20</td>
<td></td>
</tr>
<tr>
<td>POST-TEST</td>
<td>55.25</td>
<td>3.26</td>
<td>8.92**</td>
</tr>
</tbody>
</table>

**Sig at 0.01 level
From table 4.12 it can be seen that correlated t-value is 8.92 which is significant at 0.01 level with df = 51. It indicates that the mean scores of Reaction towards MKM Program assessed at two points of time differ significantly. In this context the null hypothesis, that there is no significant change in Reaction towards M-KM program is rejected. The mean score of Pre Reaction is 48.86 which is significantly different than the mean score of post reaction which is 55.25. It may, therefore be said that teacher trainees have favorable Change in Reaction towards M-KM Program by the end of the Program. Thus, teacher trainees were found to have favorable Reaction towards M-KM Program.