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6.1 The study in Retrospect

The present chapter outlines the major landmarks of procedure adopted for authenticating the Inclusive Differentiated Instructional approaches in overcoming the exclusion of Learning Disabled Pupils at Upper Primary Level. Findings and conclusions extracted from the study and the recommendations and implications emanated for future practice and research in the realm of Inclusive education are also discussed in this segment.

6.1.1 Statement of the Problem

Since the focus of the study was to check the effectiveness of select Inclusive Differentiating Instructional Approaches to overcome the exclusion of pupils with Learning Disability from the General classes at Upper Primary Level, the problem under investigation is entitled as, “Overcoming Exclusion through Inclusive Approach: An Experimental Study”

6.1.2 Variables enacted for the study

The Independent variables considered in the study are select Inclusive Differentiating Instructional Approaches (IDIA) namely, Learning Stations/Centers, Tiered Lessons and Graphic Organizers and the Existing Activity Method of Instruction (EAMI). The dependent variables selected for the study are General Science Achievement, Self Concept and Achievement Motivation of the Pupils at Upper Primary Level.

6.1.3 Hypotheses of the Study

The following Hypotheses were formulated for the study.

1. Significant difference exists in the association between Dispositions towards Inclusion and Specialization of General and Special Teacher’s at Upper Primary Level
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2. Significant difference exists in the association between Knowledge & Skills for Inclusion and Specialization of General and Special Teachers at Upper Primary Level

3. Inclusive Differentiating Instructional Approaches (IDIA) namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are effective than the Existing Activity Method of Instruction (EAMI) in enhancing the Academic Achievement in General Science of Pupils at Upper Primary Level based on
   (a) Total sample
   (b) Ability Groups (LD/Struggling, Grade Level, Advanced Level)
   (c) Learning Styles (Visual, Auditory, Kinesthetic)
   (d) Types of Disability (Reading, Writing, Arithmetic)

4. Inclusive Differentiating Instructional Approaches (IDIA) namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are effective than the Existing Activity Method of Instruction (EAMI) in improving the Self Concept of Pupils at Upper Primary Level based on
   (a) Total sample
   (b) LD/Struggling Pupils
   (c) Types of Disability (Reading, Writing, Arithmetic)

5. Inclusive Differentiating Instructional Approaches (IDIA) namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are effective than the Existing Activity Method of Instruction (EAMI) in augmenting the Achievement Motivation of Pupils at Upper Primary Level based on
   (a) Total sample
   (b) LD/Struggling Pupils
   (c) Types of Disability (Reading, Writing, Arithmetic)

6. Inclusive Differentiating Instructional Approaches (IDIA) namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are effective in
enhancing the Continuous Academic Performance of Different Categories of pupils with LD at Upper Primary Level

6.1.4 Objectives of the Study

The study mainly focused on attaining the following objectives:

1. To analyze the Dispositions towards Inclusion of Upper Primary School Teachers.
2. To compare the association between the Dispositions towards Inclusion and Specialization of Upper Primary School Teachers.
3. To analyze the Knowledge & Skills for Inclusion of Upper Primary School Teachers.
4. To compare the association between Knowledge & Skills for Inclusion and Specialization of Upper Primary School Teachers.
5. To compare the effectiveness of select Inclusive Differentiating Instructional Approaches (IDIA) namely Learning Stations/Centers, Tiered Lessons, and Graphic Organizers with the Existing Activity Method of Instruction (EAMI) in enhancing the Academic Achievement in General Science of Pupils at Upper Primary Level based on
   (a) Total sample
   (b) Ability Groups (LD/Struggling, Grade Level, Advanced Level)
   (c) Learning Styles (Visual, Auditory, Kinesthetic)
   (d) Types of Disability (Reading, Writing, Arithmetic)

6. To compare the effectiveness of select Inclusive Differentiating Instructional Approaches (IDIA) namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers with the Existing Activity Method of Instruction (EAMI) in improving the Self Concept of Pupils at Upper Primary Level based on
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(a) Total sample
(b) LD /Struggling Pupils
(c) Types of Disability (Reading, Writing, Arithmetic)

7. To compare the effectiveness of select Inclusive Differentiating Instructional Approaches (IDIA) namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers with the Existing Activity Method of Instruction (EAMI) in augmenting the Achievement Motivation of Pupils at Upper Primary Level based on

(a) Total sample
(b) LD /Struggling Pupils
(c) Types of Disability (Reading, Writing, Arithmetic)

8. To analyze the worthiness of each of the Inclusive Differentiating Instructional Approaches (IDIA) namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers in enhancing the Continuous Academic Performance of Different Categories of pupils with LD at Upper Primary Level.

6.1.5 Methodology in Brief

The present study attempted to check the effectiveness of an effective Inclusive approach in order to overcome the exclusion of pupils with LD from the teaching-learning environment of Inclusive classes at Upper Primary Level. Hence the study was conducted to ascertain the relative effectiveness of two types of Pedagogy IDIA and EAMI on enhancing the Academic Achievement in Basic Science, improving the Self Concept and Achievement Motivation of pupils with LD and Non-Disabled Pupils in an Inclusive Classroom at Upper-Primary Level. For attaining the set objectives of the investigation both quantitative and qualitative methodology were adopted for the study. As a prelude to the study, a Scale of Dispositions and Knowledge & Skills for Inclusion was administered among the General and Special education teachers [N=100] of Upper Primary Inclusive Classes for getting a deep vision about their attitude and skill level necessary for teaching in Inclusive classes. Compiling the conclusions arrived from the
analysis of the above result and the theoretical underpinnings of Differentiated Instruction Strategies the Investigator prepared three IDIA Lesson Transcripts namely, Learning Stations/Centers, Tiered Lessons and Graphic Organizers and validated among the select experts.

The second section of the study mainly conducted to test the effectiveness of select IDIA namely, Learning Stations/Centers, Tiered Lessons and Graphic Organizers through experimental approach. The Pre test Post test non equivalent group design was adopted for the experiment. IDIA Lesson Transcripts based on the select strategies were made use of the experimental intervention among the experimental groups. The control group was employed with the EAMI. The effectiveness of the prepared Lesson Transcripts was established through the select instruments and techniques namely, Achievement test in General Science, Self Concept Scale, Achievement Motivation Scale and Curriculum Based Assessments. The data thus gathered were analyzed statistically.

6.1.6 Data Gathering Tools Used in the Study

The tools and materials employed for the present study were:

1. Scale of Dispositions and Knowledge & Skills for Inclusion.
2. Judgment Schedule for IDIA Lesson Transcripts
3. Check lists for Reading, Writing and Arithmetic Difficulties
4. Screening Schedule for Learning disabilities
5. Raven’s Matrices for Intelligence.
6. Learning Style Inventory
7. IDIA Lesson Transcripts based on Learning Stations/Centers
8. IDIA Lesson Transcripts based on Tiered Lesson
9. IDIA Lesson Transcripts based on Graphic Organizers
10. EAMI Lesson Transcripts.
11. Achievement test in General Science
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6.2 Major Findings and Conclusions

The major findings and conclusions of the study reciprocating the objectives formulated for the same have been presented under the following heads.

Section 1 Conclusions arrived at from the analysis of the Dispositions and Knowledge & Skills for Inclusion of Teachers in the Inclusive Classrooms at Upper Primary School Level

Section 2 Conclusions arrived from the Analysis of the effectiveness of select IDIA namely, Learning Stations/Centers, Tiered Lessons and Graphic Organizers, over EAMI on Achievement in General Science, Self Concept and Achievement Motivation of Upper Primary School pupils.

Section 3 Conclusions arrived from the Analysis of the worthiness of each of the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers towards enhancing the Continuous Academic Performance of Different Categories of pupils with LD.

Section 1

This section depicts the findings and conclusions that emerged from the analysis of Dispositions and Skills necessary for Inclusion of General and Special education teachers at Upper Primary School level. The major findings pertaining to this section are arranged as follows.

6.2.1 Conclusions arrived at from the analysis of the Dispositions and Knowledge & Skills for Inclusion of Teachers in the Inclusive Classrooms at Upper Primary School Level

Conclusion -1

Both General and Special Upper Primary School Teachers are in favour of Inclusion. At the same time, majority of them are unaware of the behaviour
management techniques to handle children with disabilities in the Inclusive Classroom set up.

This conclusion is supported by the following findings of the study.

Majority of the teachers (69%) strongly agree that they support the concept that children with learning disabilities profit from friendships with non-disabled students. Further support is noted in the frequency of response (54%) shown for the statement No.9, “We actively encourages full participation of students with disabilities in the life of the school, including extracurricular activities”. Besides this, above average number of respondents (54%) supported the statement No.15 “We actively encourages the parents to share in-depth knowledge with teachers about their children’s strengths and weaknesses and their specific needs”.

The disagreement rate (disagree (45%), and strongly disagree (19%)) of the statement No. 14,”Teachers are well informed on how to apply different behaviour management techniques” shows that majority of the teachers are unaware of the behavior management techniques in the Inclusive classroom.

**Conclusion -2**

There is no significant difference in the association between Dispositions towards Inclusion and Specialization of Upper Primary School teachers. Both General and Special Teachers are having similar favourable opinion towards Inclusion. At the same time Special Teachers showed more awareness towards behaviour management techniques in Inclusive Classrooms.

Comparison of Dispositions of General and Special teachers as in the Inclusive Class rooms at Upper Primary Level based on Specialization using The Mann-Whitney U Test was done. This conclusion is supported by the following findings of the study. For majority of the positive statements No’s 1,2,3,6,7,11,13,15 almost all the General and Special education practitioners selected were in favour of Inclusion, both the groups accept the concept of including children with disabilities in general education Class rooms. But it is noted that majority of Special teachers who were undergone special education and in service courses were showing more agreement towards the statements
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No.5, 8, 9, 10, 12, 14. This shows that Special teachers are more aware of the instructional ways to identify the strengths and weaknesses of pupils and the behaviour management techniques to handle the children with disabilities in general education classrooms.

Conclusion -3

Majority of Upper Primary General and Special teachers do not possess the necessary Knowledge & Skills that should be used in a diverse Inclusive classroom to manage children with Learning Disabilities along with normal children.

This is supported by the following findings. Towards the important skills needed for differentiating instruction for an Inclusive classroom with diverse abilities, such as” I support structures.., use of rubrics, use of student….., providing templates and Organizers, use of student learning contracts, use of interest centers and use of various instructional strategies to differentiate are rarely used by teachers. Most of these important skills are never used by majority of these teachers. (40%, 34%, 56%, 57%, 48%, 50% etc).And also a major share of teachers are unfamiliar with these strategies (29%,16%,32%, 36%,28%,41% etc).

Conclusion - 4

There is significant difference in the association between Knowledge & Skills for Inclusion and Specialization of Upper Primary School Teachers. At the same time, Special teachers appear to use techniques and strategies for differentiation more frequently than their regular educational counterparts.

This is supported by the following findings. When considering the skill ‘I assess student interest” 51.6% General education teachers rarely/monthly used the technique at the same time almost 57.75 Special teachers used this technique on a weekly basis. The Mann-Whitney U Test (Z= 2.53, p<.05) shows the variation in the opinion of the skill is statistically significant at 0.05 level. Thus it can be concluded that Special teachers have more used the technique in an Inclusive class compared to General teachers. Almost similar result is evident from the table for the techniques “I vary the pace of learning to meet the needs of different learner, I have grades reflect individual growth and I run a
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student centered classroom”, “I use other product format”, “I chunk product assignments”, I provide templates and Organizers, I use rubrics, I use student-learning contracts.”

It is also evident that major shares of General education teachers are often use (41.9%) or weekly use (41.9%) the technique, “I use a variety of materials beyond the basic text books”. More or less similar level of result is for Special education teachers also. Often (55.3%) and weekly (31.6%). The Mann- Whitney U Test (Z= 1.18, p>0.05) shows that the opinion towards this skill is independent of the specialization of the educator. Both teachers equally use this technique in the Inclusive Classroom. Almost same result is shown for “I support structures” When considering the techniques, I use interest centers and I use various instructional strategies to differentiate, we can see both General and Special teachers are never or unfamiliar with the strategy.

6.2.2 Conclusions arrived from the Analysis of the effectiveness of select IDIA namely, Learning Stations/Centers, Tiered Lessons and Graphic Organizers by considering the performance of Upper Primary pupils on: Achievement in General science, Self Concept and Achievement Motivation.

Conclusion-5

IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI in enhancing Academic Achievement in General Science of Upper Primary School Pupils of Inclusive Class based on Total Sample.

This is supported by the following findings of the study.

ANOVA is used to determine whether there is any significant difference between the groups with regard to Pre and Post-test Achievement Scores. The F statistics for the Post-test Achievement Scores (Fy =59.76, p<0.01) is greater than the table value for df (3,463) and thus the variation is significant at 0.01 level. The value of
the ANCOVA ($F_{y.x} = 84.34, p<0.01$) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of $F$ value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are ($F=47.22, p<0.01$), ($F=48.25, p<0.01$) and ($F=69.58, p<0.01$) respectively. Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic Achievement in General Science of Upper Primary Pupils in Inclusive Classrooms based on Total Sample.

**Conclusion - 6**

**IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI in enhancing Academic Achievement in General Science of Upper Primary School Pupils of Inclusive Class based on Ability Grouping (LD/Struggling, Grade Level and Advanced Level Learners).**

The conclusion is arrived from the following findings of the study.

- Comparison of pre post test scores (ANOVA Table) for achievement for struggling students shows that the $F$ statistics for the Post-test Achievement Scores ($F_y =24.81, p<0.01$) is significant at 0.01 level. The value of the ANCOVA ($F_{y.x} = 24.13, p<0.01$) is significant at 0.01 level. From $F_{y.x}$, it is clear that the mean score of Post-test Achievement, after adjusted for the Pre-test Achievement Scores significantly differ among the groups. On comparing the adjusted mean of experimental and control group, it is found that calculated value of $F$ value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are ($F=10.43, p<0.01$), ($F=18.16, p<0.01$) and ($F=17.94, p<0.01$) respectively. Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic Achievement in General Science of Upper primary LD/Struggling Students in Inclusive Classrooms.

- Comparison of pre test and post test scores (ANOVA Table) for achievement for Grade Level Learners shows that the $F$ statistics for the Post-test Achievement...
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Scores (F<sub>y</sub> = 95.85, p<0.01) is significant at 0.01 level. The value of the ANCOVA (F<sub>y.x</sub> = 95.39, p<0.01) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of F value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are (F = 61.22 (p<0.01)), (F = 51.28, p<0.01) and (F = 71.75, p<0.01) respectively. Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic Achievement in General Science of Upper Primary Grade Level Students in Inclusive Class rooms.

- Comparison of pre test and post test scores (ANOVA Table) for achievement for Advanced Level Learners shows that the F statistics for the Post-test Achievement Scores (F<sub>y</sub> = 8.31, p<0.01) is significant at 0.01 level. The value of the ANCOVA (F<sub>y.x</sub> = 7.9, p<0.01) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of F value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are (F = 6.46 (p<0.01)), (F = 5.53, p<0.01) and (F = 3.18, p<0.05) respectively. Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic Achievement in General Science of U P Advanced Level Students in Inclusive Class rooms.

Conclusion -7

IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI in enhancing Academic Achievement in General Science of Upper Primary School Pupils of Inclusive Class based on Learning Styles (Visual, Auditory and Kinesthetic).

- Comparison of pre test and post test scores (ANOVA Table) for achievement for Visual learners shows that the F statistics for the Post-test Achievement Scores (F<sub>y</sub> = 24.03, p<0.01) is significant at 0.01 level. The value of the ANCOVA (F<sub>y.x</sub>
= 38.55, p<0.01) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of F value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are (F=18.34 (p<0.01)), (F=22.33, p<0.01) and (F=33.23, p<0.01) respectively. Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic Achievement in General Science of U P Visual Learners in the Inclusive Class rooms.

- Comparison of pre test and post test scores (ANOVA Table) for achievement for Auditory Learners shows that the F statistics for the Post-test Achievement Scores (Fy =15.96, p<0.01) is significant at 0.01 level. The value of the ANCOVA (Fy.x = 21.27, p<0.01) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of F value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are (F=12.24 (p<0.01)), (F=9.95, p<0.01) and (F=18.46, p<0.01) respectively. Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic Achievement in General Science of U P Auditory Learners in the Inclusive Class rooms.

- Comparison of pre test and post test scores (ANOVA Table) for achievement for Kinesthetic Learners shows that the F statistics for the Post-test Achievement Scores (Fy =19.82, p<0.01) is significant at 0.01 level. The value of the ANCOVA (Fy.x = 26.72, p<0.01) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of F value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are (F=17.34 (p<0.01)), (F=17.51, p<0.01) and (F=18.82, p<0.01) respectively. Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic Achievement in General Science of U P Kinesthetic Learners in the Inclusive Class rooms.
Conclusion - 8

IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI in enhancing Academic Achievement in General Science of Upper Primary School Pupils of Inclusive Class based on type of Disability (Reading, Writing and Arithmetic), where as IDIA based on Learning Station is not effective for Pupils with Reading Difficulty.

- Comparison of pre test and post test scores (ANOVA Table) for achievement for learners with Reading Difficulty shows that the F statistics for the Post-test Achievement Scores (Fy =8.4, p<0.01) is significant at 0.01 level. The value of the ANCOVA (Fy.x = 6.91, p<0.01) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of F value between Learning Stations/Centers is (F=2.34) is not significant even at 0.05 levels. But it is found that calculated value of F value between, Tiered lessons, Graphic Organizers and activity method are (F'=5.97, p<0.01) and (F'=4.97, p<0.01) respectively. Thus it can be concluded that only the IDIA namely Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic Achievement in General Science of UP Learners with Reading Difficulty in the Inclusive Class rooms.

- Comparison of pre test and post test scores (ANOVA Table) for achievement for learners with Writing Difficulty shows that the F statistics for the Post-test Achievement Scores (Fy =10.3, p<0.01) is significant at 0.01 level. The value of the ANCOVA (Fy.x = 9.89, p<0.01) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of F value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are (F'=5.41 (p<0.01)), (F'=6.99, p<0.01) and (F'=7.19, p<0.01) respectively. Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic
Achievement in General Science of U P Learners with Writing Difficulty in the Inclusive Class rooms.

- Comparison of pre test and post test scores (ANOVA Table) for achievement for learners with **Arithmetic Difficulty** shows that the F statistics for the Post-test Achievement Scores ($F_y = 10.56, p<0.01$) is significant at 0.01 level. The value of the ANCOVA ($F_{y,x} = 16.64, p<0.01$) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of $F'$ value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are ($F' = 11.02, p<0.01$), ($F' = 10.2, p<0.05$) and ($F' = 14.24, p<0.01$) respectively. Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Academic Achievement in General Science of U P Learners with Arithmetic Difficulty in the Inclusive Class rooms.

**Conclusion-9**

**IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Self Concept of Upper Primary School Pupil of Inclusive Class based on Total Sample.**

This is supported by the following findings of the study.

- Analysis of Variance (ANOVA) is used to determine whether there is any significant difference between the groups with regard to Pre-test Achievement Scores and Post-test Achievement Scores. The F statistics for the Post-test Achievement Scores ($F_y = 41.72, p<0.01$) is significant at 0.01 level. The value of the ANCOVA ($F_{y,x} = 63.36, p<0.01$) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of $F'$ value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are ($F' = 23.6, p<0.01$), ($F' = 60.76, p<0.01$) and ($F' = 10.95, p<0.01$) respectively. The other $F'$ values reveals that there is also significant difference at 0.05 levels between Stationed Learning and Graphic
Organizers method ($F=2.55$, $p<0.05$) and also at 0.01 levels between Tiered Lessons and Graphic Organizers method ($F=20.72$, $p<0.01$). Thus it can be concluded that the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Self Concept of U P Pupils in Inclusive Class rooms based on Total Sample.

Conclusion-10

Among the select IDIA namely Learning Stations, Tiered Lessons and Graphic Organizers, only Tiered lessons is significantly effective than EAMI in improving Self Concept of Upper Primary School pupils with LD of Inclusive Class.

This is supported by the following findings of the study.

- Analysis of Variance (ANOVA) is used to determine whether there is any significant difference between the groups with regard to Pre-test Achievement Scores and Post-test Achievement Scores. The F statistics for the Post-test Achievement Scores ($F_y = 3.27$, $p<0.05$) is significant at 0.05 level. The value of the ANCOVA ($F_{y.x} = 3.28$, $p<0.05$) is significant at 0.05 level. On comparing the adjusted mean of experimental and control group, it is found that only the calculated value of F’ value between Tiered lessons and activity method is ($F’=3.27$ ($p<0.05$) is significant at 0.05 level. The other F’ values reveals that there is no significant difference even at 0.05 levels between Stationed Learning and Graphic Organizers method. Thus it can be concluded that only the IDIA based on strategy Tiered Lessons is significantly effective than EAMI on Self Concept of U P Learning Disabled Pupils in Inclusive Class.

Conclusion-11

None of the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers is significantly effective than EAMI in improving Self Concept of Upper Primary School Pupils of Inclusive Class based on Type of Disability (Reading, Writing, Arithmetic).
Comparison of pre test and post test scores (ANOVA Table) for Self Concept for Learners with reading, Writing and Arithmetic Difficulty shows that the F statistics for the Post-test Self Concept Scores (Fy =1.32, p>0.05), (Fy =1.58 p> 0.05) and (Fy =0.2, p>0.05) is not significant at 0.05 level. The value of the ANCOVA for Learners with reading, Writing and Arithmetic Difficulty shows that (Fy.x = 1.57) , (Fy.x = 1.57, p>0.05) and (Fy.x 1.51, p>0.05) is not significant at 0.05 level. Thus it can be concluded that even though the IDIA namely Tiered lessons only shows significantly effective (0.05 level) than EAMI on Self Concept of Upper Primary Total sample of Learning disabled Learners but we cannot see any such result when Taken the Disability groups.

Conclusion - 12

IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI in augmenting the Achievement Motivation of Upper Primary School Pupils of Inclusive Class based on Total Sample.

This is supported by the following findings of the study.

Analysis of Variance (ANOVA) is used to determine whether there is any significant difference between the groups with regard to Pre-test Achievement Motivation Scores and Post-test Achievement Motivation Scores. The F statistics for the Post-test Achievement Motivation Scores (Fy =25.53, p<0.01) is significant at 0.01 level. The value of the ANCOVA (Fy.x = 53.11, p<0.01) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of F value between Learning Stations/Centers, Tiered lessons, Graphic Organizers and activity method are (F`=25.75, p<0.01), (F`=50.06, p<0.01) and (F`=11.6, p<0.01) respectively. The other F values reveals that there is also significant difference at 0.05 levels between Learning Station and Graphic Organizers method (F`=2.95, p<0.05), between Tiered Lessons and Graphic Organizers method (F`=13.9, p<0.01) and
between Learning Stations/Centers and Tiered Lessons (F=3.94, p<0.01) at 0.01 levels. Thus it can be concluded that the IDIA namely Learning Stations/ Centers, Tiered Lessons and Graphic Organizers are significantly effective than EAMI on Achievement Motivation of U P Pupils in Inclusive Class rooms based on Total Sample.

Conclusion-13

Only the IDIA based on strategy namely Tiered Lessons is significantly effective than EAMI in augmenting the Achievement Motivation of Upper Primary School pupils with LD of Inclusive Class.

This is supported by the following findings of the study.

- Analysis of Variance (ANOVA) is used to determine whether there is any significant difference between the groups with regard to Pre-test Achievement Scores and Post-test Achievement Scores. The F statistics for the Post-test Achievement Scores (Fy =3.19, p<0.05) is significant at 0.05 level. The value of the ANCOVA (Fy.x = 4.74, p<0.01) is significant at 0.01 level. On comparing the adjusted mean of experimental and control group, it is found that only the calculated value of F value between Tiered lessons and activity method is (F’=4.57 (p<0.01) is significant at 0.01 level. The other F values reveals that there is no significant difference even at 0.05 levels between Stationed Learning and Graphic Organizers method. Thus it can be concluded that only the IDIA based on strategy Tiered Lessons is significantly effective than EAMI on enhancing the Achievement Motivation of U P Learning Disabled Pupils in Inclusive Class.

Conclusion-14

None of the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers is effective than EAMI in augmenting the Achievement Motivation of Upper Primary School Inclusive Class LD Pupils based on Type of Disability (Reading, Writing, Arithmetic), except Tiered Lessons for pupils with LD with Reading Difficulty.
Comparison of pre test and post test scores (ANOVA Table) for Achievement Motivation for Reading Difficulty Learners shows that the F statistics for the Post-test Achievement Motivation Scores (Fy =1.18, p>0.05) is not significant at 0.05 level. The value of the ANCOVA (Fy.x = 3.52, p<0.05) is significant at 0.05 level. On comparing the adjusted mean of experimental and control group, it is found that calculated value of $F^*$ value between Tiered lessons and activity method is ($F^* =3.52$ (p<0.05). The other $F^*$ values reveals that there is no significant difference between the other experimental methods. Thus it can be concluded that only the IDIA namely Tiered Lessons is significantly effective than EAMI on Achievement Motivation of UP learners with Reading Difficulty in Inclusive Class rooms.

Comparison of pre test and post test scores (ANOVA Table) for Achievement Motivation for writing Difficulty Learners shows that the F statistics for the Post-test Achievement Motivation Scores (Fy =2.39) is not significant even at 0.05 level. The value of the ANCOVA (Fy.x = 2.22) is not significant even at 0.05 level. Thus it can be concluded that none of the IDIA is significantly effective than EAMI on Achievement Motivation of UP Writing Disabled Students in Inclusive Class rooms.

Comparison of pre test and post test scores (ANOVA Table) for Achievement Motivation for Arithmetic Difficulty Learners shows that the F statistics for the Post-test Achievement Motivation Scores (Fy =0.55) is not significant at 0.05 level. The value of the ANCOVA (Fy.x = 0.5) is not significant even at 0.05 level. Thus it can be concluded that none of the IDIA is significantly effective than EAMI on Achievement Motivation of UP Arithmetic Disabled Students in Inclusive Class rooms.
6.2.3 Conclusions arrived from the analysis of the worthiness of each of the IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers towards enhancing the Academic Performance of Different Categories of pupils with LD by means of Curriculum Based Assessments (CBA).

**Conclusion -15**

IDIA namely Learning Stations/Centers is significantly effective in enhancing the Continuous Academic Performance of Different Categories of pupils with LD at Upper Primary Level

This is supported by the following findings of the study.

- The average score regarding CBA for disabled students of reading at initial stage is 2.3 and it gradually increases and the score at the final assessment is 7.8. The Friedman Test is used to assess the variation in CBA at different interval of time. The test value (117.83, p<0.01) shows that the variation is statistically significant at 0.01 level. Similarly the variation in CBA is significant for writing and Arithmetic disabled students.

**Conclusion -16**

IDIA namely Tiered Lessons is significantly effective in enhancing the Continuous Academic Performance of Different Categories of pupils with LD at Upper Primary Level

This is supported by the following findings of the study.

- The average score regarding CBA for disabled students of reading at initial stage is 2.3 and it gradually increases and the score at the final assessment is 7.8. The Friedman Test is used to assess the variation in CBA at different interval of time. The test value (133.75, p<0.01) shows that the variation is statistically significant at 0.01 level. Similarly The variation in CBA is significant for writing and Arithmetic disabled students.
Conclusion -17

IDIA namely Graphic Organizers is significantly effective in enhancing the Continuous Academic Performance of Different Categories of pupils with LD at Upper Primary Level.

This is supported by the following findings of the study.

The average score regarding CBA for disabled students of reading at initial stage is 2.3 and it gradually increases and the score at the final assessment is 7.8. The Friedman Test is used to assess the variation in CBA at different interval of time. The test value (96.89, p<0.01) shows that the variation is statistically significant at 0.01 level. Similarly the variation in CBA is significant for writing and Arithmetic disabled students.

6.3 Summary of Conclusions

The study revealed the fact that the select sample of General and Special Upper Primary School teachers handling Inclusive Classes were found to possess positive dispositions for Inclusion. Both category educators are in favour of Inclusion, but it was found that both, especially majority of the General Teachers do not possess the necessary knowledge of managing Inclusive class. Majority of both category educators are unaware of behaviour management techniques to handle students with Learning Disability. The study also reveals that considerable number of General and Special Teachers do not possess the necessary Knowledge and Skills for Inclusion. They are unaware of research based new strategies that can be effectively implemented in an Inclusive Class. Therefore the present study emphasizes the acute urgency of training the educators to equip them with knowledge and skills necessary for Inclusion.

The study also found that the select IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers acted as channels for the improvement of Academic Achievement of Upper Primary School Pupils with different ability groups. The select Inclusive strategies are based on Differentiating Instruction, which is very essential as far as an Inclusive Class is concerned. The components like, safe environment, honoring the diversity, assessing the individual learner, selection of appropriate strategy and approach are articulated well in the select IDIA. The processes
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inculcated in the IDIA practices motivated the learners to consciously engage in the learning process. This equipped them to handle the classroom activities effectively with ease and deftness. This noticeable change was evidenced through the assessments done by the researcher to know the Academic Achievement, and Continuous Academic Performance of disabled pupils. This enhanced the General Teachers level of routine adaptation with a combination of rich, systematic ongoing assessment information, such as CBA and a reorganized classroom structure, such as Differentiated Strategies, that permits teachers to feasibly introduce a routine structure within which adaptations may be incorporated. Engaging in challenging classroom activities allowed the learners to become more aware of their learning processes and equipped them to become more responsible for meeting their needs. Such objectives can only be achieved when they are trained in explicit practices in their regular classroom activities. The select IDIA namely Learning Stations/Centers, Tiered Lessons and Graphic Organizers helped the learner to incorporate all these essential components. The distinctive characteristic of the select IDIA practices in optimizing the participation of disabled pupils in the teaching-learning environment were also discussed and proved that the select strategies are very helpful in overcoming the exclusion of pupils with LD from the regular classroom environment.

This type of classroom practice will enable the learners to engage in challenging activities to proceed according to their pace without losing their self concept.

6.4 Implications of the Study

The present study was basically intended to evolve a suitable Inclusive Differentiated Instructional practice for including all types of learners in the teaching-learning environment, thereby reducing the exclusion of pupils with LD. The findings of the present study have implications for developing a better understanding about the learning problems and suggest suitable strategies for the children with special reference to learning disability. The findings can motivate policy makers, administrators, authorities, teachers and parents to take necessary measurements to help pupils with LD. The contributions of the present study in education, as identified by the Investigator, are outlined below:
1) At the outset of the study the Investigator enquired about the Dispositions and Knowledge & Skills for inclusion of Upper Primary School General and Special Teachers by conducting a survey by administering a Scale of Dispositions and Knowledge & Skills for inclusion. The conclusions derived in this respect evinced that a realignment of teacher training scenario is inevitable now to provide effective training to pre-service teacher educators regarding the management of inclusive classes and developing Inclusive Skills necessary to implement in a differentiated classroom with special need students. In the prevalent scenario, Pre-service and In-service teacher educators experience certain barriers and they are struggling to manage inclusive classes. Often these teachers are either neglecting these children with special needs or showering them with negative comments, while they face difficulties in managing the inclusive classes. This results in the exclusion of these children with special needs from the regular classroom environment. So there is an urgent need to give training to in-service and pre-service teacher educators to acquire the skills for inclusion to manage an Inclusive classroom effectively.

2) The results of the investigation have proved that IDIA is more effective than EAMI in enhancing the achievement of pupils with LD and Non-Disabled students in the inclusive class at Upper Primary Level. The general impact of the study reveals that it is high time to orient towards Differentiating Instruction for creating an enriching environment. Differentiating Instruction occurs when teachers produce several avenues to challenge the needs of students having varied learning styles and learning requirements. This instructional approach gives the students a sense of ownership over the learning process and focuses on individual needs. This implies the necessity of deliberately incorporating IDIA in the learning context of inclusive classes by our teachers to minimize the exclusion of pupils with LD from the teaching –learning environment.

3) Even though the activity oriented modes were being adopted in the school set up, it is not appropriate for including all types of learners in the learning context. The study indicates the context which demands more exposure to explicit instruction
of varied activities embedded in the Differentiating Instructional practices. Specific attempts to categorize students in accordance with their learning styles may assist them in actively engaging and involving in the learning process. Familiarity with the characteristics of each learning style and the application of multisensory approaches allows the practitioner to address the needs of each type of learners. It also throws light on the urgent need to polish the instructional practices by inculcating Differentiating Instructional components based learning styles.

4) Differentiating Instruction is an instructional process that has excellent potential to positively impact learning by offering teachers a means to provide instruction to a range of students in today's classroom situations. The Investigator made use of three Inclusive Differentiating practices namely, Learning Stations/Centers, Tiered lessons and Graphic Organizers towards enhancing the academic achievement of Upper Primary School Pupils and especially in augmenting the continuous academic progress of pupils with LD. The stages involved in the classroom practice, Learning Stations/Centers capacitated the pupils to work independently or in small groups. Students work on activities purported to achieve select objectives. Because stations or learning centers are student centered rather than teacher centered, it is conducive to individual learning. Learning becomes meaningful and challenging when each student competes only with himself or herself. Students explore, estimate, experiment, question and hypothesize through learning center activities. Students rotate to different stations to explore new topics or practice skills. Stations provide interest and challenge for all types of learners. Stations can be differentiated by readiness level or can be developed around different learning styles or intelligence or they can be interest-based stations. In the present context, the Investigator adopted Learning Stations/Centers as a classroom practice with a view to differentiating instruction so that students may rotate each stations and try each activity or students may be assigned to specific stations to develop to meet specific needs. The study shows that learners practiced the task with a spirit of co-operation and made conscious
effort to produce valuable outcomes. It also revealed the impact of the select classroom practice to promote inclusion of all learners and thereby overcoming the exclusion of pupils with LD.

5) The focus of a differentiated classroom is to implement strategies that will enhance learning for all students. One strategy that supports this is Tiered lessons and assignments. The technique of ‘Tiering’ provides most advantageous learning for all students in the classroom by allowing the same concept to be developed using differing levels of instructional activities. Learners must have a challenge that is appropriate for them in order for learning to occur. Students experience more success when learning occurs at the level of challenge that is appropriate for them. When teachers tier assignments, they make slight adjustments within the same lesson to meet the needs of students. All students learn the same fundamental skills and concepts but through varying modes and activities. The tiers appropriately challenge students at their ability levels. The teacher’s challenge is to make sure all tasks, regardless of the tier level, are interesting, engaging, and challenging. In the present context, the Investigator adopted Tiered Lessons as a classroom practice with a view to Differentiate Instruction so that students may experience the learning at their appropriate ability level. The study shows that learners practiced the task using differing levels of instructional activities. While planning the Implementation phase of the Tiered Lessons, Investigator incorporated three stages: Whole Class Initial Activities, Tiering Activities and Whole Class Culminating Activities. It also revealed the impact of the select classroom practice to promote inclusion of all types learners.

6) Graphic Organizers provide teachers with tools to help students on the road to higher achievement. Graphic Organizers that target critical and creative thinking verbs are vehicles to help develop students’ cognitive abilities and provide formats for students to process their thinking and content. Graphic Organizers formats also allow teachers to diagnose where students’ thinking has gone awry. Teachers can pin-point areas in which students’ thinking is weak, illogical, or unclear. In the present context, the Investigator adopted Graphic Organizers as a
way to Differentiate Instruction with a view to enhance active learning of all types of learners in an inclusive class set up. Cognitive Graphic Organizers are one of the most powerful tools to support Differentiated Instruction. The versatility of the Graphic Organizers makes them perfect tools for differentiation. It enabled the learners to construct their own pictorial presentations with regard to the particular content. The patterning of information with the help of this practice allowed the students to retain the information in an organized format. In order to familiarize the students with the processes embedded in the select classroom practice - Graphic Organizers they were led through the ways suggested by Drapeau (2009). She has suggested six ways to differentiate using Graphic Organizers. Five of those focus on modifying the Organizers itself, the prompt and/or the resources based on the needs of the students. A sixth way to differentiate involves creating your own Graphic Organizers, when existing ones just won’t work in a situation. Investigator, in the present study mainly adopted two of the ways i.e., differentiating using ‘open-ended prompt’ and using ‘the Directed prompt’ and the study has revealed its effectiveness to include Upper Primary School pupils with LD and non-disabled pupils in the teaching–learning environment.

7) These learner-centered instructional strategies provide individual autonomy, initiate collaborative learning, and encourage students to bring social experiences and link with the concepts and ideas related to the content. All the IDIA strategies are sufficient to strengthen process skills and contextual competencies. It helps to nurture social and emotional skills of learners which help them to solve real life problems and to develop life skills.

8) The developed strategies provide preference to the practitioners and teachers to implement and carry out it with their own vision, flexibility, additions and modifications and guide them to direct the learners to focus on goal setting, knowledge production and skills attainment. It could also prepare teachers to offer feedback mechanisms and student support systems that should help the learners to understand why, when and how to adopt and implement these strategies effectively and systematically.
9) The ongoing assessments in the form of CBA along with the implemented strategies for assessing the Continuous Academic Performance of pupils with LD provide the opportunity for the teachers to reorganize the activities in between according to the levels of the learners. This reveals the need of continuous assessments and monitoring of the disabled students performance to promote better inclusion.

10) The curriculum planners and policy makers must take initiatives to make use of these strategies adequately and follow the findings and recommendations to enhance the status of curriculum transaction strands in the prevailing Upper Primary Level and surely generate a productive young world without experiencing any sort of exclusion.

11) Based on the findings of this study, it is recommended that this study be replicated after professional development in differentiated instruction has been in the district for several years, and compare EOC (End of Course) results to see whether scores increase once Differentiated Instruction is taking place in all classrooms. It is further recommended that a similar study be conducted using a different population such as elementary and middle school teachers who teach core academic subjects (English, Math, Science, and Social Studies).

6.5 Limitations of the Study

The study has certain limitations that need to be taken into account.

Inclusive classrooms are places where all students can learn and thrive. Parents can support this by educating themselves on the social, emotional and intellectual benefits of inclusive education. However parents should stay involved with their child’s education throughout the school year through communication with the teacher. It is very essential to make sure the cooperation of parents to provide support to the learning disabled at home to come up with other students without losing their Self Concept and by improving their Achievement Motivation. Even though, Investigator tried to give awareness to the parents by occasionally organizing parents meeting before and in between the intervention, yet Investigator felt certain lacunae in ensuring this parental cooperation.
maximum at home, which was beyond the control of the Investigator. Second, Special educators help was needed to plan lessons for pupils with LD at the beginning and in between the interventions. As these special educators are working as itinerant teachers, who visit the school once or twice in a week, Investigator felt some difficulties in this aspect. Their unexpected absence cause many difficulties for the Investigator at the time of Intervention.

In spite of the aforesaid limitations, the study has enormous possibilities for extending student success to a greater extend which mentioned in the section (6.4). The need for Differentiated Instructional practices with a view to creating independent learners offers greater chances for the instructional practitioners in all levels of school. Even though the study has certain limitations, it has implications for future research studies.

6.6 Suggestions for further Research

When the Investigator completed the study it was felt that a series of allied studies might be conducted in accordance with the present one. Such related studies may extend the scope of the present one and further generalization become possible. An extensive examination of the research done in the areas that comes under the jurisdiction of the study points towards the pertinent need for a wide array of investigation in the particular areas. A few of the relevant areas with regard to the Inclusive education and Differentiating Instructional practices are cited below.

- A critical enquiry into the impact of Inclusive Differentiating Instructional practices for boosting the social skills among the disabled pupils at varied levels.

- An investigation on the effect of Inclusive Differentiating Instructional practices for the development of language skills and improvement in academics in other subjects as well.

- An investigation into faculty dispositions towards instructional dynamics blended with differentiating instructional practices at higher education level using focus group discussions.
• Impact of Inclusive Differentiating instructional practices for effective classroom management among pre service and in service teachers.

• Developing a learning package for enhancing social skills and academic achievement based on Differentiating Instruction at high school level.

• Developing a method of blended CBM with Peer-Assisted Learning Strategies for enhancing General educator’s routine adaptation.

• Develop select intervention packages based on Graphic Organizers for slow learner at Primary level.

• Impact of curriculum based assessments to improve the reading, writing and mathematical abilities of primary level pupils.

• Developing select Graphic Patterns for enhancing comprehension abilities among students at high school level.

• Develop multimedia package based on Differentiating Instructional practices for promoting professional excellence of school practitioners at higher secondary level.

• Similar type of experimental researches can be carried out to compare the effectiveness of IDIA and EAMI in other subjects also

• Effect of technology enabled instructional strategies for enhancing inclusion of children with special needs in all levels of schooling.

• Prepare a remedial programme based on Graphic Organizers for rectifying difficulties in solving learning problems in Upper Primary School Level.

• Construct a training programme for practitioners based on Inclusive Differentiated Instruction for professional excellence at Upper Primary School Level.
• It will be useful to conduct the similar research over a large sample including students of different types of schools from different districts.

• Impact of Inclusive Differentiating instructional practices for overcoming the exclusion of other disabled categories like, intellectually disability, visually impaired, hearing impaired, autistic students etc.

These suggestive ideas can enrich the learning climate of all types of learners including children with Learning Disabilities as well as a platform for Differentiating Instruction which are the key ingredients towards creating active and thoughtful learners.