

The Impact of Training on Knowledge Transfer in Higher Education

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ABSTRACT: *What is the best way of achieving excellence? The management schools' achievements ultimately depend on well-qualified faculty who are able to transfer knowledge to their pupil in the most effective way. Education also needs a sense of purpose. The supreme objective of management education should be to turn out students as capable managers who can take a worthy stand in furthering this transfer of knowledge effectively by emulating their teachers. Teacher training has been a rigorous program for school teachers in India, but the same is missing in the higher education segment and more-so in professional colleges. This research paper investigates on the effect of training the faculty of MBA in a specially designed and researched teaching and training methodology which incorporates the learning styles of students, considers the multiple intelligence levels, and promotes the use of humor, anecdotes, multilingual instruction, outbound training programs, total learning methodology and focus on lower scores of multiple intelligence in linguistic and logical scores.*

KEYWORDS: Higher education, Knowledge transfer, Training.

1. INTRODUCTION

It is said that teaching is an art. Reinforcing this art and bettering the best is an objective of any teacher. General teachers training programs stress on the schedules, modules, content delivery, and questions for interaction, charts and maybe power point

presentation. All this is done keeping the teacher in mind and considering a very homogeneous cluster of learners. Before embarking on any teaching, it is important to know the profile of the learners. In an MBA institute, the students are in the adolescent age and above and hence deserve to be treated that way while developing the learning-teaching methodology. In a pilot research survey of faculty members of management schools in the city of Belgaum, it was seen that more than 80% of the teachers were not trained professional teachers. They either emulated their own teachers or did what they felt were the best way of teaching. Most of the teachers were not aware of the composition of the class in terms of language fluency, mother tongue, scores in their degree exams, dominant learning styles and the lower and higher cut offs of multiple intelligence. Most of teachers also did not use a template for the class. The preparation for a class was restricted to the domain content and the time schedule. Many faculty members were not too aware of concepts like Neuro Linguistic Programming, Bloom's taxonomy, etc. The faculty members opined that humor and anecdotes are important but they were not using it in the class. For an effective knowledge transfer, we need to go beyond the conventional method of teaching and adopt a more systematic and designed template for effective knowledge transfer.

2. LITERATURE SURVEY

Research on learning styles state, that students will accept and even learn from homework provided that its design takes into consideration students' learning styles and study skills. To provide the best way of learning to the individuals, learning style should be determined beforehand by considering the differences such as personality, perception, ability and intelligence.(Ibrahim Yasar Kazu) . Dunn and Dunn (1993) suggest that learning style is a method of getting and processing the new knowledge or difficult information. Li Chung Wang and Ming-Puu Chen (2008) examined the perspective of compensation and enhancement that when learning strategies matched with learners' stronger learning style learners' performance and motivation will be enhanced, and when learning strategies matches with learners' weaker learning styles learners' ICT skills will be compensated. A study by Hui-Hui TIE and Irfan Naural Umar (2010) has emphasized the importance of considering the learning styles in learning the concepts for classroom delivery and hence the learning style influences the learning approach of students in perceiving and interacting. The preferred Learning Style of students are correlated with the students' recall and retention performance. De Vita (2001) suggested a 'multistyle' teaching approach that boils down to selecting an alternating teaching techniques to match the various learning style preferences of multicultural students. However, the 'multistyle' teaching approach is centered on teaching effectiveness; that is, selecting the right teaching methods. It provides little insight into teaching efficiency like using these methods in an appropriate way and time. Ethnic and cultural variation in student learning styles can become an obstruction when a lecturer's teaching style does not

match the learning preferences of the student body (Biggs, 1997).

UNESCO supports bilingual and/or multilingual education at all levels of education as a means of promoting both social and gender equality and as a key element of linguistically diverse societies." The National Council for Education Research and Training (NCERT) in the National Curriculum Framework, 2005 (NCF) makes it clear that bilingualism and multilingualism confer definite cognitive advantages' and schools need to evolve strategies that use the multilingual classroom as a resource'. Howard Gardner lists seven intelligences (IQ) that meet his criteria for intelligence. These intelligences are (1) Linguistic, (2) Logical-mathematical, (3) Musical, (4) Spatial, (5), Bodily-kinesthetic, (6) Interpersonal and (7) Intrapersonal (Gardner, 1999). Tailoring lessons to students' needs and preferences optimize learning. Catering to the multiple intelligences (MI) leads to active learners and successful students (Nolen, 2003).Research also indicates that music has a positive impact on the learners ability to get involved in the learning process. Learning in a natural setting can also boost learn ability. With the advent of the internet, it also becomes important to deliver knowledge chunks through all possible channels like the e-learning and the m-learning.

3. OBJECTIVE OF RESEARCH

Having understood that each student is differently intelligent, it becomes a magnanimous task to satisfy every student in the class. Hence, a model of teaching which incorporates the learning style, humor, anecdotes, multilingual instructions, outbound training program, total learning

methodology and considering low scores of multiple intelligence is incorporated and two faculty members are trained to transfer knowledge to the learners in a systematic method. The effect of implementing this method in management education is studied.

4. METHODOLOGY

A teaching methodology with an acronym AVKHAM-Music, OBT, TLM, LSMI is developed. AVKHAM stands for Auditory, Visual Kinesthetic, Humor, Anecdotes, and Multilingual instructions. OBT stand for Out Bound Training, TLM stands for Total Learning Methodology, and LSMI stands for Low Scores in Multiple Intelligence. To implement the AVKHAM-Music, OBT, TLM, LSMI, methodology a sample of the MBA students was considered. This was a class of the first year and 58 students participated in this. Two faculty members participated in the experiments. The experimenter used a Before- After experimental analysis for the whole group. The group was first exposed to a conventional teaching method by the two faculty members for eight hours. A feedback was taken to study 7 variables. The faculty members were now trained to use the AVKHAM-Music, OBT, TLM, LSMI, methodology. Now, the faculty member engaged the students for another eight hours implementing the module as per the template. Feedback was taken again and the results were analysed using the z-test.

5. THE AVKHAM-MUSIC, OBT, TLM, LSMI METHODOLOGY

In this teaching methodology, the faculty members were trained to understand the learning styles of the students. Each student can have either one or a combination of

learning styles. They could be either Auditory (Who learn by listening), Visual (who learn by see in) and Kinesthetic (who learn by doing). The session is designed to satisfy all the learners in the class. This also suggests injecting humor into the class which may be or may not be related to the subject. These are interrupts to break the monotony of a session. Simplifying management concepts by anecdotes is a great method to retain knowledge. A class may have students from cross –cultural society with different language skills. Important key words can be translated for the benefit of the students. This way, learning is reinforced. Some session dealing with quantitative techniques or mathematical calculation can get very boring. A soft music can rejuvenate the learning process. Research supports the use of music to enhance learning in schools. The faculty members can have an unconventional seating methods and in a setting of nature to reinforce learning. The compact classroom seating can sometimes cause hindrance psychologically. Hence, outbound training programs can be implemented for this purpose. The TLM methods advocates bombarding knowledge chunks by all the channels viz. email and mobile, and also adopt the television telecast for learning. The students with low linguistic scores should be a target for theoretical subjects and those low on mathematical skills should be target for mathematical subjects. This way the whole class gains since the lower strata students are the targets to find out whether learning has taken place or no?

6. HYPOTHESIS AND STATISTICAL TOOLS

Z-TEST FOR COMPARISON OF TWO MEANS

Feedback were obtained from the experimental units on a scale from 1 to 5 (1 being minimum score and 5 being the maximum score) for both conventional and non-conventional teaching methodologies with respect to each factor (teaching style, knowledge transfer, level of interaction, overall session performance, knowledge acquisition and level of interest generated). Here the all the hypothesis are tested at 5% level of significance. Further the software has the provision of only t-test, but as soon as the size of the experimental group exceeds value 30 then the software automatically shifts from t-test to Z-Test. Further here we are using Z-test for comparison of two means since we are comparing the average feedback score of conventional and non-conventional teaching methodologies with respect to each factor. To carry out the Z-test for comparison of two means, we first carry out Levene's test

for equality of variances. Here if the p-value under Levene's test for equality of variances is less than the level of significance (5% i.e. 0.05) then we observe the p-value for the Z-test with equal variances not assumed else we observe the p-value for the Z-test with equal variances assumed. Further if the p-value under the Z-test is less than the level of significance (5% i.e. 0.05) than the null hypothesis is rejected else it would be accepted at the given level of significance. The various hypotheses which were tested after the experiments were as follows. HN1: There is no significant difference between Conventional and Unconventional (AVKHAM-Music, OBT, TLM, LSMI,) methodology with respect to teaching style HA1: There is a significant difference between Conventional and Unconventional (AVKHAM-Music, OBT, TLM, LSMI,) methodology with respect to teaching style

Group Statistics

Teaching Methodology		N	Mean	Std. Deviation	Std. Error Mean
Teaching Style	Conventional	58	3.55	.71	9.26E-02
	Non-Conventional	58	4.57	.53	7.01E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Teaching Style	Equal variances assumed	4.888	.029	-8.781	114	.000	-1.02	.12	-1.25	-.79
	Equal variances not assumed			-8.781	106.149	.000	-1.02	.12	-1.25	-.79

INFERENCE: The above hypothesis is tested at 5% (0.05) level of significance with equal variances not assumed. Here we

observe that the p-value (0.000 \approx 0.0001) is less than the level of significance (0.05),

hence we can reject the null hypothesis (HN1) at 5% level of significance.

CONCLUSION: There is a significant difference between Conventional and Unconventional teaching methodology with respect to teaching style as observed for Faculty 1. Further we can conclude that Unconventional teaching methodology is better than the Conventional methodology since average score of Unconventional teaching methodology (4.57) is greater than

the average score of Conventional methodology (3.55) HN2: There is no significant difference between Conventional and Unconventional (AVKHAM-Music, OBT, TLM, LSMI,) methodology with respect to knowledge transfer HA2: There is a significant difference between Conventional and Unconventional (AVKHAM-Music, OBT, TLM, LSMI,) methodology with respect to knowledge transfer

Group Statistics

Teaching Methodology		N	Mean	Std. Deviation	Std. Error Mean
Knowledge Transfer	Conventional	58	3.28	.64	8.45E-02
	Non-Conventional	58	4.59	.56	7.39E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Knowledge Transfer	Equal variances assumed	.475	.492	-11.674	114	.000	-1.31	.11	-1.53	-1.09
	Equal variances not assumed			-11.674	112.035	.000	-1.31	.11	-1.53	-1.09

INFERENCE: The above hypothesis is tested at 5% (0.05) level of significance with equal variances assumed. Here we observe that the p-value (0.000 ≈ 0.0001) is less than the level of significance (0.05), hence we can reject the null hypothesis (HN2) at 5% level of significance.

CONCLUSION: There is a significant difference between Conventional and Unconventional teaching methodology with respect to knowledge transfer as observed for Faculty 1. Further we can conclude that Unconventional teaching methodology is

better than the Conventional methodology since average score of Unconventional teaching methodology (4.59) is greater than the average score of Conventional methodology (3.28) HN3: There is no significant difference between Conventional and Unconventional (AVKHAM-Music, OBT, TLM, LSMI,) methodology with respect to level of interaction HA3: There is a significant difference between Conventional and Unconventional (AVKHAM-Music, OBT, TLM, LSMI,)

methodology with respect to level of interaction

Group Statistics

Teaching Methodology		N	Mean	Std. Deviation	Std. Error Mean
Level of Interaction	Conventional	58	3.12	.77	.10
	Non-Conventional	58	4.71	.50	6.51E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Level of Interaction	Equal variances assumed	4.721	.032	-13.141	114	.000	-1.59	.12	-1.83	-1.35
	Equal variances not assumed			-13.141	97.041	.000	-1.59	.12	-1.83	-1.35

INFERENCE: The above hypothesis is tested at 5% (0.05) level of significance with equal variances not assumed. Here we observe that the p-value (0.000 \approx 0.0001) is less than the level of significance (0.05), hence we can reject the null hypothesis (HN3) at 5% level of significance.

CONCLUSION: There is a significant difference between Conventional and Unconventional teaching methodology with respect to level of interaction as observed for Faculty 1. Further we can conclude that Unconventional teaching methodology is

better than the Conventional methodology since average score of Unconventional teaching methodology (4.71) is greater than the average score of Conventional methodology (3.12) HN4: There is no significant difference between Conventional and Unconventional) AVKHAM-Music, OBT, TLM, LSMI), methodology with respect to overall session HA4: There is a significant difference between Conventional and unconventional (AVKHAM-Music, OBT, TLM, LSMI,) methodology with respect to overall session.

Group Statistics

Teaching Methodology		N	Mean	Std. Deviation	Std. Error Mean
Overall Session	Conventional	58	3.48	.71	9.28E-02
	Non-Conventional	58	4.78	.50	6.53E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Overall Session	Equal variances assumed	17.429	.000	-11.368	114	.000	-1.29	.11	-1.52	-1.07
	Equal variances not assumed			-11.368	102.300	.000	-1.29	.11	-1.52	-1.07

INFERENCE: The above hypothesis is tested at 5% (0.05) level of significance with equal variances not assumed. Here we observe that the p-value (0.000 ≈ 0.0001) is less than the level of significance (0.05), hence we can reject the null hypothesis (HN4) at 5% level of significance.

CONCLUSION: There is a significant difference between Conventional and unconventional teaching methodology with respect to overall session as observed for Faculty 1. Further we can conclude that unconventional teaching methodology is

better than the Conventional methodology since average score of unconventional teaching methodology (4.78) is greater than the average score of Conventional methodology (3.48) HN5: There is no significant difference between Conventional an unconventional (AVKHAM-Music, OBT, TLM, LSMI,) methodology with respect to knowledge acquisition HA5: There is a significant difference between Conventional and unconventional))AVKHAM-Music, OBT, TLM, LSMI, methodology with respect to knowledge acquisition

Group Statistics

		N	Mean	Std. Deviation	Std. Error Mean
Knowledge Acquisition	Teaching Methodology Conventional	58	3.48	.68	8.95E-02
	Non-Conventional	58	4.67	.54	7.12E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Knowledge Acquisition	Equal variances assumed	8.827	.011	-10.400	114	.000	-1.19	.11	-1.42	-.96
	Equal variances not assumed			-10.400	108.535	.000	-1.19	.11	-1.42	-.96

INFERENCE: The above hypothesis is tested at 5% (0.05) level of significance with equal variances not assumed. Here we

observe that the p-value (0.000 ≈ 0.0001) is less than the level of significance (0.05),

hence we can reject the null hypothesis (HN5) at 5% level of significance.

CONCLUSION: There is a significant difference between Conventional and Unconventional teaching methodology with respect to knowledge acquisition as observed for Faculty 1. Further we can conclude that Unconventional teaching methodology is better than the Conventional methodology since average score of Unconventional teaching methodology

(4.67) is greater than the average score of Conventional methodology (3.48) HN6: There is no significant difference between Conventional and Unconventional (AVKHAM-Music, OBT, TLM, LSMI,) methodology with respect to extent of interest generated HA6: There is a significant difference between Conventional and Unconventional (AVKHAM-Music, OBT, TLM, LSMI) methodology with respect to extent of interest generated

Group Statistics

Teaching Methodology		N	Mean	Std. Deviation	Std. Error Mean
Extent of Interest Generation	Conventional	58	3.52	.71	9.28E-02
	Non-Conventional	58	4.72	.52	6.87E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Extent of Interest Generation	Equal variances assumed	11.460	.001	-10.453	114	.000	-1.21	.12	-1.44	-.98
	Equal variances not assumed			-10.453	105.007	.000	-1.21	.12	-1.44	-.98

INFERENCE: The above hypothesis is tested at 5% (0.05) level of significance with equal variances not assumed. Here we observe that the p-value (0.000 ≈ 0.0001) is less than the level of significance (0.05), hence we can reject the null hypothesis (HN6) at 5% level of significance.

7. CONCLUSION: There is a significant difference between Conventional and Unconventional teaching methodology with respect to extent of interest generated as observed for Faculty 1. Further we can conclude that Unconventional teaching

methodology is better than the Conventional methodology since average score of Unconventional teaching methodology (4.72) is greater than the average score of Conventional methodology (3.52)

After subjecting the data to the z-test, the following was observed that the AVKHAM-Music, OBT, TLM, LSMI, is better than the conventional method of teaching with respect to the variables - teaching style, knowledge transfer, interest generated, overall session, level of interaction and knowledge acquisition. It was concluded

that the training was effective and this was indicated in the feedback forms and the hypothesis. The impact of training on knowledge transfer was positive. This suggests that the faculty members in higher education must undergo training programs to make knowledge transfer effective.

8. REFERENCES :

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