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Successful Teaching Learning Method with satisfied & effective student – An ADDIE Model Approach

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Abstract

Today education system is with number of challenges for their sustainability due to heavy competition, synchronization of number of mushroom like private colleges with the demand for assistance ship of quality based education with the assured value addition towards the students .Quality assurance may be with the measurement scale of student satisfaction and their effective address towards promotional and competitive exam. Here the authors have gone for implementation of ADDIE model approach in the teaching learning methods with its testing by 300 samples of Engineering students with its result of successful teaching learning & satisfied effective students which may promote the brand image of the colleges and helpful for its growth and survival.

Keywords: (ADDIE Model, Effective teaching learning method, satisfied & effective student)

Introduction:

Competitive marketing environment attracts the knowledge workers with their proficiency and potentiality which may be used for today and tomorrow generally depends upon the conceptual clarity, deep understanding with its implementation of the concepts of the various disciplines. Engineering discipline is one of them also has the need for the same from its knowledge workers to be selected sustain with a profession by protecting the attrition whereas the market is lacking its demand as per the need with the heavy unemployment and more

attrition with more labour cost towards the various organizations. Today unemployment and more attrition rate in the field of engineering not only demotivated the students to study engineering but also reduced demand for the technical education has created a challenging environment towards the professional facilitators to grow their product. The student product development in general and engineering student product particular to be developed to meet the current and potential market need is now a herculean task. Teacher at tertiary level should find innovative ways to make the student be motivated towards this discipline with the help of their deep understanding, conceptual clarity and implementation of the concepts by engaging the student as much as it is possible whereas the prevailing method of teaching and on-going Classes are not reinforcing and supporting in a positive way to meet the current challenging situation, has the need for certain changed approach. Here the authors have gone for the implementation and testing of the ADDIE Model approach for teaching method development with the rectification of the current problem. ADDIE is an instruction system design framework that many instructional designers & training developers use to develop courses. This tool has its five stages are as – analysis, design, development, implementation, evaluation.

Review of the Model:

The importance and successful implementation leads many researcher do many testing for the validity and vitality of this model and its approaches which is drawn and taken into consideration to find out its features and development of the variables and validity testing by the experiment with the help of samples .

Peterson(2003) ADDIE model is a very systematic approach to develop and design the syllabus for the students with its multimedia project application provides a systematic framework and have the finding that the model enabled and helps to develop a learner centred approach with the growth and development of the effective and efficient learner.

Cox & Osguthrope conducted a survey of 142 experts to find out the applicability of ADDIE model towards the instructional designers with the planned content and framework for their success.

Molenda (2005) has its research in the application and its vitality of the ADDIE model with the interpretative remarks that it is a process based approach or development of instructions content, is its importance towards its application due to its iterative, reviews and revision throughout the process.

Branch(2009) is with the ADDIE model research report and remarked that this model as the input process output paradigm which designs the instructions and incorporated with the feedback.

Van Roojj (2010) had done the research in the field of ADDIE model and with his research report on ADDIE model told that it is a dominant process which is used to develop learning for more complex deliverables.

Piskarch (2015) ADDIE model is an instructional design model to develop curriculum in diversified field with its different phases.

Bichely mayer in his study an instrumental models concluded that there is lack of congruity between the theory research and practice in instructional design.

Objective of the study:

- To find out the importance of ADDIE Model in Teaching Profession.
- To find out ADDIE model a tool for Effective and market need based Student product

Methodology of the study:

This study is based on the help of both the primary and secondary data collection. Primary data the experiment is held with the help of 300 students those are participated with this model approach class with their views with the help of the questionnaire and answer collection in this field. To study the vitality of the questionnaire, here the author has gone for the literature reviews and past available text analysis and find out a suitable questionnaire design which was tested to get the result there of.

Procedure of the ADDIE model implementation:

The ADDIE model will be implemented to meet the changes is required in the field of techniques for teaching learning better. This model will be implemented with the steps like analysis, design, development and evaluation.

Analysis: In this phase, subject of target group and planned environment is determined to meet the objective of the model and helps to the design phase. Before go for the model implementation the environment has to be developed or target group is fixed with the clarification of instrumental problems and objectives which identifies the learner's existing knowledge and skills. The analysis phase the target group that the 5th and 7th semester Engineering students and their class room teaching environment is selected by the author's environment and fixed has to be examined as per the features of development. The participants of the study are students of 5th & 7th semester Engineering Students of Biju Pattanaik University of Technology. The study was conducted during a course of a semester to still completion of that semester with 300 samples those were randomly selected for the study.

Design: This phase is developed to make the changes of the traditional method of teaching to the today developed and required innovative teaching styles. This phase contents the method and styles of the teaching with the consideration of the target group. Experimental design would enable researcher to make empirical observations, it was chosen. Richard Mayer remarks that experimental research has been the gold standard for educational psychology from early times. Here the students are tested pre-test and post-test design.

Development Phase: This phase the new model has to be practically developed with its clear cut features and procedure. Here the author has implemented the teaching method like case study, role playing, real life example, story -telling, experiment and theory learning with their implication and practical usage was developed for the 5th and 7th the semester engineering students. First both the Internal & External environment was analysed with the

reasons that ineffective teaching methods make the students not to attend the class and with conceptual clarity problem. After the discussion among the teachers, it was thought to develop the teaching methods by the addition of case study, real life situation, storytelling and implication oriented discussion of theories among the students and teacher.

Implementation: This phase develops procedures for training facilitators and learners. Training facilitator covers curriculum, learning outcomes, method of delivery and testing procedures & practically the model approach has to be implemented. Here the author has implemented the new technique of teaching here for the targeted group.

Evaluation: The step will be conducted with the evaluation of the performance of the students with the result coming from the university examination. the student's attendance in the class and their score / SGPA marks in the university were recorded Here the students are tested pre-test and post-test design. Before the implementation of the design and after the implementation of the model the attendance and score of the students are recorded.

Data analysis instrument & Analysis:

Besides this a questionnaire was made to find out the reason behind the absenteeism in the class and not motivated in the class and poor performance in the exam was distributed among the students of the target group. Collected and completed questionnaires are taken into consideration for the analysis and report with the forth coming conclusion. The data was analysed excel and SPSS Descriptive statics like mean, standard deviation, regression analysis, correlation coefficient & F-statistics.

Table -1(Validity of the independent variable Variables)

Variable	N	Mean	S.D	Std . Error
Liked teaching style	300	3.64	1.206	.364
Techniques for teaching	300	3.55	1.214	.364
Subject interest	300	3.36	1.206	.366

(Source: Own compilation)

From the above table statistics it is observed that all the means for the independent variable is good with very little deviation, which is with less standard error, means these are the valid independent variable which is increasing the growth of the student score in the semester exam as the dependent variable.

Table -2 (Significant relation between dependent & independent variable)

Variables	Un-standardised coefficients		Standardised Coefficients	T- Test	Significance
	B	STD. ERROR	Beta		
Constant	3.258	7.378			
Liked teaching style	-.916	.980	.456	.935	.000
Techniques for teaching	2.091	.921	.807	2.269	.000
Subject interest	1.216	.830	.677	1.490	.000

(Source: Own compilation)

The table -2 shows the variable teaching style, liked teaching & subject of interest are related to the attendance and student's performance as the coefficient for the teaching style is negatively related with the coefficient -.916 and liked teaching & subject interest are both positively related with coefficient 2.091 and 1.216. The result indicates attendance of the student will increase one unit, with the liked teaching changes in 2.091 change and keeping the subject interest and teaching style constant and one unit change in attendances is due to the 1.216 unit change in subject interest by keeping constant teaching style and teaching style. The teaching style and attendance with performance of the student are negatively related. The result indicates both teaching styles and subject interest significantly influences the attendances and make the development of effective student product. This is evident for the P value of teaching style and liked teaching which is .000 significance level and the significance of the coefficient is indicated if the p value is less than equal to the level of significant with the alpha value .05.

The importance of the independent variable is obtained by the absolute value of the standardized regression coefficients. This result shows liked teaching is more important than the teaching style due to the absolute value

of the standardized coefficient for teaching style and liked teaching is .283 and .689 respectively. Above statistical report has all the positive value of beta is showing the good relationship of student scores in BPUT semester Exam and newly designed teaching model.

Table – 3(Regression between student score developed model of teaching)

Model	R	R SQUARE ADJUSTED	STD. ERROR
I	.880	.906	.786

(Source: Own Compilation)

The above table-3 presented the result of regression with the value of R^2 equals .906 indicating 90% of the variation in the value of R^2 in the simple regression model was .88 which was increased to .906 with the inclusion of liked teaching. The value of Above data analysis report is telling that there is positive regression means changes in the independent variable is leading to the positive changes in the dependent variable.

Table-4(ANOVA for the effect of ADDIE Model)

Model	Sum of squares	d.f	Mean square	F value	Significance
Regression	4106.98	2	2093.199	38.570	.000
Residual	426.928	8	52.24		
Total	4532.90	10			

(Source: Own compilation)

The Table- 4 shows the F statics report is positive with the value of 38.570 with its significance level of .000 depicts the R^2 is significant , means there is a positive relation between the independent and depend variable whereas the dependent variable is the student attendance and result and independent variables are the teaching style and liked teaching .

Conclusion:

The experiment and evaluation reveals that the ADDIE model can help to design and implement the strategy for better understanding and conceptual clarity with its advantages of development of knowledge ,skill, ability and growth of effectiveness and efficiency of the learners and makes themselves market need based matched by

solving the problems of the learner .The testing report of this model is emphasising upon the importance in the field of changes and telling that changes in the methods of teaching is required for each and every educational institutions to grow the efficiency of the students, which will make them to be capable enough to get the job and their sustainability which will enhance the brand image of the different institutions to get its developed demand and sustainability.

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