Original Article

**IMPORTANCE OF COURSE MODULE IN ACADEMIC PERFORMANCE OF STUDENTS AT UNIVERSITY LEVEL:**

*(A Case of Year II Technology and science Faculty students- Jimma University)*

*(M Ranga Reddy)*

**ABSTRACT**

In recent times, the rate of increase of students strength in the Universality of Ethiopia is posing big problem to student Community in many ways due to lack of facilities to stay and study in the campus. However, University is centre for Academic Excellence and Training to all types of students to promote sustainable development in the country. But shortage of reference materials is a kind of problem to achieve desired goals set by the University. Here study is designed to get the information regarding role and importance of modules in Academic success of students community. Two cases are studied and discussed separately. In the case-I, year II Computer science students of Jimma University are taken as purposive sample and data is collected through the written examination. In case II, four groups of students are selected randomly from all PPC II students of Jimma University. Data is collected through

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the Interview Method. Chi – Square Test and other statistical Tests are used to analyze the collected data. Research findings show that course module is useful academically up to some level in improving the standards of students. I am recommending that steps should be taken to introduce course module at all levels of university studies.

**INTRODUCTION**

Generally education deals with the development of humankind in so many ways. In this process, education is being given to students with different methods namely Teaching, Demonstration, Laboratory Practice, Field Study and etc.. The struggle to study is the main aim of the students in the Teaching Learning process. The aim of all above is to make Teaching - Learning process most effective. However, for this achievement, students need so many infrastructure facilities at university to acquire sufficient knowledge in their field. (1,2). In the same time, University is a place for good training and to provide facilities to students like effective teaching, suitable atmosphere, sufficient library and laboratory. Generally Students rely on the lecture notes, reference and text books study materials at large to maintain good performance in their studies.(2,3,4) With reference to all above we have
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assumed that text books and reference books are supposed to be available plenty in number easily to all students. Now-a-days, students number in all Universities have been increased by Ministry of education, but in the same time basic facilities are not being increased at the same rate. In this scenario, the rapid growth of students number in each University, it is observed, certainly affects the availability of basic facilities to all students staying in the campus. (4, 5, 6) In the same way, availability of text books and reference books at libraries is questionable! To meet the above problem and to reach the goal of university, course modules are supposed to be introduced at all levels. This study is designed to find how course module helps to students for effective learning of complex concepts in the compact academic system. Here main investigation is set around student’s orientation.
benefits and to make teaching learning process most effective. To contrast the performance of students in their studies with course module and without course module. To know the difficulties of students in getting text/reference books at all libraries and how course module is helpful in their studies. Data is collected and analyzed through various Statistical Methods and Analysis, Discussion and Recommendations are made on the Research findings. This study is conducted from November 2004 and December 2004.

METHODOLOGY:

The subjects of students are year II students of Jimma University. Case I and Case II are designed to collect data through written examination and Interview with students. Data is analyzed using various statistical Methods. Results are drawn on the Research findings.

Case I: The study is for year II computer students of Jimma University to know the significance of course module in their academic success/performance. All students of computer science PPC-II students are taken as purposive sample. Two equally standard chapters namely Chapter I (Algebra and Logic) and Chapter II (combinatorics) of Math-281 are taken and taught to all purposive sample students uniformly under same conditions. Course Module is prepared for Chapter II and distributed to all students. Written examination in Chapter I and
Chapter II is conducted. The performance of all students is evaluated and recorded. According to students performance, all students are divided into 4 categories namely Cat1 (A grade students), Cat2 (B-grade students), Cat3 (C-grade students) and Cat4 (D-grade students).

**Case II** Interview with Year II students from the Technology and the Science Faculties of Jimma University is the design. One group from Computer Science PPC II consists of 10 students are selected randomly. Other 3 groups from the Technology and the Science faculties are selected randomly such that each group consists of 10 students. Averagely, 60% students are present in the each group for interview and each group is questioned about the following two variables. Information through discussion with students in each group is recorded and analyzed using the various Statistical methods.

1. Availability of Text/Reference books at concerned libraries in Jimma University.
2. How course Module is useful for regular studies.

**Analysis and Result:** Case I: The Summarized data is analyzed by the Chi-square distribution with the hypothesis that there is no significance difference between two chapters one is with course module and other one is without course module in terms of students academic performance.
<table>
<thead>
<tr>
<th></th>
<th>Cat₁</th>
<th>Cat₂</th>
<th>Cat₃</th>
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<td>19</td>
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<td>20</td>
<td>20</td>
<td>08</td>
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<td>Total</td>
<td>26</td>
<td>34</td>
<td>35</td>
<td>27</td>
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**chapter * catagory Crosstabulation**

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<th></th>
<th>catagory</th>
<th>category 1</th>
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**Che-Square Analysis:**

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<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>6.746(a)</td>
<td>3</td>
<td>.080</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>6.882</td>
<td>3</td>
<td>.076</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>3.871</td>
<td>1</td>
<td>.049</td>
</tr>
</tbody>
</table>
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N of Valid Cases 122

0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.57.

Students performance is observed with the chi-square analysis. The above test shows there is significance difference in the performance of students in between two chapters, course module is given for the chapter ii. The Chi-Square analysis says, the calculated value 6.746 is greater than the table value 6.251. at 90% level of confidence with 3 degrees of freedom. The hypothesis is rejected. There is a significance difference between the two chapters. In terms of students performance one is supported with course module and other one is not supported without course module.

It is also observed from the Figure I, the students performance in the Chapter II (combinatrics supported with course
I (algebra and logic not supported with course module). The bar graph justifies clearly the count range on the y-axis in the first three categories A, B and C are better in the Chapter II supported by course module while in the category D is less comparing with chapter I.

Case II: All collected qualitative information relating to above said two variables through the Group Interviews with year II students from the Technology and the science faculties of Jimma University is analyzed by the various statistical methods. Opinion of students is observed and tabulated as follows.

Figure II Opinion of students variable I

Var, = Availability of reference/text books
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: \( \text{Var}_2 = \text{Role of course module in their studies} \)  
\( X_1 = \text{Positive opinion in percentage} \)  
\( X_2 = \text{Normal opinion in percentage} \)  
\( X_3 = \text{Negative opinion in percentage} \)

<table>
<thead>
<tr>
<th></th>
<th>( X_1 )</th>
<th>( X_2 )</th>
<th>( X_3 )</th>
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<tbody>
<tr>
<td>( \text{Var}_1 )</td>
<td>15</td>
<td>10</td>
<td>75</td>
</tr>
<tr>
<td>( \text{Var}_2 )</td>
<td>80</td>
<td>15</td>
<td>05</td>
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</table>

**Figure III** Opinion of students

**DISCUSSION:** Here, our discussion is mainly based on the results of Case I and Case II. It is noticed that students' academic performance should be improved by providing course module. We observed that course module plays very important role in the busy academic schedule because it saves time and covers all concepts. It is very important to all students to improve their academic performance in so much sufficient number of books are not available at concerned libraries. From above analysis Results, we can say that course module helps to all types of students in the universities up to some level in their studies. Regarding with our reference (2), course module helps...
to reach the goal of University and improve the quality of education.

In the group interviews with students, 75% students from all groups expressed unhappy over availability of text/reference books at their concerned libraries. It is observed that from our reference (4), under the new education policy number of students were increased at large but facilities are not being at the same rate in the universities Campus.

It is noticed that 80% students from group Interview say that course module saves time and helps for easy understanding of all complex and covers all concepts. Based on the students' opinion, we say that course modules are the alternative solution to provide effective education to all students and at all levels in the present scenario under new education policy.

Regarding with reference to our references (1,2,4), to meet all above students have been forced to complete so many academic requirements within the small time frame schedule. But preparation of course module is not simple task. It requires concerted efforts of qualified professionals and concerned authorities. It is suggested that concerned authorities has to encourage professionals by incentives or academic promotion. It is observed that all teachers in the university are very busy with their regular academic work, therefore, University Teachers have to take interest and have
to spend their own time on the preparation of course module. In the same time concerned authorities have to provide basic facilities for smooth preparation. I am concluding that course modules are useful at all levels of university studies and improves students’ academic performance.

RECOMMENDATIONS:

Researcher felt that course module helps students by and large in many ways at present conditions in the all Universities because of over crowded and insufficient facilities. So it is recommended that immediate steps should be taken for preparation and distribution of course modules to all University students.

It is recommended that concerned Professionals have to be encouraged for preparation of course module and necessary facilities have to be provided.

ACKNOWLEDGMENT:

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using advanced methods.

REFERENCES:


2. Aims and objectives of Universities:

3. Read, J and Bergrde. Dec 2003:
   Introduction to education.
   Johan Willeay and Sons.


5. Academic Rules and Regulations:

6. Tools of Teaching: Davis J Year 2000
   John Willison and sons Inc.