CHAPTER - I

INTRODUCTION AND DESIGN OF THE STUDY

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1.1. Introduction

Time management plays a vital role in enhancing the productivity and prosperity of anyone desiring to achieve a time bound task. This is so much relevant and important to engineering students. Each and every student should have time management sense and plan to set goals and priorities, and realize them within the fixed time.\(^1\) Time management mechanism renders a person organized in using time in a systematic manner. Time management may be defined as activities or tools which allow any person to effectively manage the time. Time management is one of the crucial factors which determine productivity of work force or an individual. Proper practice of planned time management will increase productivity. Today, time management has been classified into a number of categories, but they all basically seek to achieve the same objectives within a given time. Time left unused can never be retrieved or in other words it cannot be reused. Most people talk about time management, generally referring to it on a personal level. The idea of time management is that an individual or an organization which spends more time doing productive and constructive work is sure to accomplish the task with success in a time bound manner. To be productive in managing time, certain skills need to be developed, which include planning, setting goals, decision making, programming, prioritizing and effective execution.

Time management deals with a variety of problems related to definition of goals, assessment of available resources, control of management policies and scheduling of decisions. Personal Time Management is about systematically controlling the use of the most valuable resource which is often undervalued. The absence of Personal Time Management is characterized by last minute rushes to meet dead-lines, hurry-bury preparation amidst tension and anxiety. This sort of negative environment leads to unwanted stress, degradation of performance and failures.

Poor time management is often a symptom of ignorance or no-confidence or over confidence. Techniques which used to work with small projects and workloads are simply inappropriately reused with large ones. One can not drive a motor bike like a bicycle, nor can one manage a supermarket-chain like a market stall. The demands, the problems and the payoffs for increased efficiency are all larger as one’s responsibility grows. One must learn to apply proper techniques to better the performance. Possibly, the reason why the Time Management is poorly practiced is that it seldom forms a measured part of appraisal and performance review. What many fail to realize and foresee is how intimately it is connected to accomplishments and achievements.

Personal Time Management has many facets. Most managers/individuals recognize a few, but few recognize them all. There is a simple concept of keeping a well ordered diary and the related idea of planned activity. Most of the

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students are not aware of the importance of Time Management in achieving the objectives of their learning process. Hence, it is essential to study on the time management of students in the Engineering Colleges which are in the jurisdiction of Anna University of Technology, Tirunelveli, for the purpose of making suggestions as to how students could be sensitized and motivated to manage time at their disposal for better result.

1.2. Statement of the Problem

Time management is essential in every field of life to accomplish a given task within a given time. The time once passed will never come back to be availed. Time management helps the students to do a task in time and utilize the time more productively. It helps the students to identify the activities on priority basis and plan the activities accordingly. It helps them give proper time to a task and perform the task more efficiently.

Every academic activity of a student is time centric. A student has to do a variety of activities every day which include curricular, co-curricular, extra-curricular and extension in addition to his or her personal engagements, such as entertainment, social and family obligations, and health up-keep.

The present generation of students have many challenges and problems due to distractive elements in the electronic and print media, peer-group relationship, family situation and personal attitude. As a result, the attention of students are likely to get diverted from main stream academic activities to
unproductive exercises, resulting in unattainment of the objectives of their studies within the time frame. Most of the students suffer due to their lack of awareness and action to proceed with a set goal and set time.

In the present Higher Education System, the students in the Technical Education Stream have more learning difficulties than the non-technical students owing to the high-tech course content. Certain amount of high intellectual potential is required on the part of the students to manage and master the technical subjects of study. The intellectual potential is not uniform among the students who hail from various socio-economic and educational background. Unless the students belonging to different category of intellectual attainment and engagement are sensitized adequately to fully utilize the time at their disposal in a constructive manner, they will have to face unnecessary problems and failures. Watching movies, playing games, using internet for recreation and listening to music for hours are called “distracters” which distract one from one’s real career interest. Games and physical exercise are important for a student because it refreshes his/her mind and it keeps him/her physically and mentally fit. Long time to games as well as no time to games is not advisable. A sizable time a day is spent on unproductive purposes due to the lack of proper time management and career planning. The age of a student during college days is of tempting as well as celebrative and playful one. Hence formal and informal motivation to every student irrespective of his or her background is a desideratum.
The Anna University of Technology, Tirunelveli came into being on 17th July 2007. As on date there are 67 Engineering Colleges, located in four districts namely Kanyakumari, Tirunelveli, Tuticorin and Virudhunagar. The colleges were affiliated to the Anna University of Technology, Tirunelveli till the merger of the University with Anna University, Chennai on 1st August 2012. A good number of the students who study in these colleges are from rural areas and first education generation. The rural students in particular and others in general need guidance and support for proper time management for better productivity. After reviewing all the available literature, it is clear that no specific study is available in the chosen topic. So the researcher has selected the present topic “A Study on the Time Management of Students in the Engineering Colleges Affiliated to Anna University of Technology, Tirunelveli” for research.

1.3. Scope of the Study

The present study covers students in the Engineering Colleges in four districts namely Kanyakumari, Tirunelveli, Tuticorin and Virudhunagar affiliated to the erstwhile Anna University of Technology, Tirunelveli. Now it is merged with the Anna University, Chennai. Though the primary objective of the study is to find out the pattern of Time Management practiced by the students from various socio-economic background, other related aspects such as food habits, physical facility at home and parental support are also analyzed.
1.4. **Significance of the Study**

Time management deals with a variety of skills, tools, and techniques which are adopted in accomplishing specific tasks, projects and goals. It includes a wide range of activities, such as planning, allocating, setting goal, distribution, analysis of time spent, monitoring, organizing, scheduling, and prioritizing. In addition, time management also refers to a systematic, priority-based structuring of time allocation and distribution among competing demands. It is a fact that time can't be stored. Similarly it can neither be increased beyond nor decreased. The purpose of this research is to unearth the truth and also to know the answers through structured questionnaire. The significance of the study lies in finding out facts and suggesting ways and means to improve the performance of students through proper and planned usage of time.

The findings of the study could be a remedy to address the issues arising from abuse of time and improper management of time. It would also motivate and help students to devote more attention to developing their effective time management skills for better learning.

1.5. **Objectives of the Study**

The following are the main objectives of the study

i. To review the existing literature in the field of time management.
ii. To study the profile of Engineering education in the erstwhile Anna University of Technology, Tirunelveli.

iii. To study the socio-economic and demographic background of engineering students under study.

iv. To identify the interrelationship between time management and academic performance.

v. To identify factors influencing time management pattern of students and their performance.

vi. To suggest the best time management model to the engineering students for enhancing their performance.

1.6. Hypotheses of the Study

The study is undertaken based on the following null hypotheses

i. There is no significant association between experience of anxiety and self-motivation of students.

ii. There is no significant association between experience of anxiety and students motivation by others.

iii. There is no significant association between student’s usual wakeup time and sleeping time.
iv. There is no significant association between student’s usual wakeup time and usage of biological clock.

v. There is no significant association between student’s mode of travel and time spent on travel.

vi. There is no significant association between student’s mode of travel and time management on travel.

vii. There is no significant association between time spent for relaxation and time spent for study.

viii. There is no significant association between time spent for relaxation and time spent for physical exercise.

ix. There is no significant association between time spent for relaxation and time spent for television.

x. There is no significant association between time spent for relaxation and time spent for newspaper reading.

xi. There is no significant association between time spent for relaxation and time spent for morning food.

xii. There is no significant association between time spent for relaxation and time spent for noon food.
xiii. There is no significant association between time spent for relaxation and time spent for night food.

xiv. There is no significant association between HSC Scholastic Attainment and Engineering Level Scholastic Attainment of OC Category Students.

xv. There is no significant association between HSC Scholastic Attainment and Engineering Level Scholastic Attainment of BC Category Students.

xvi. There is no significant association between HSC Scholastic Attainment and Engineering Level Scholastic Attainment of MBC Category Students.

xvii. There is no significant association between HSC Scholastic Attainment and Engineering Level Scholastic Attainment of SC/ST Category Students.

1.7. **Methodology and Data Collection**

It is a qualitative and analytical study. To carry out the present study both primary and secondary data were used. The primary data were collected from the students of Engineering Colleges Affiliated to Anna University of Technology, Tirunelveli with the help of a structured questionnaire. The details of the academic performance of the students were collected from the office of the
colleges under study. The secondary data were collected from various journals, books, time management magazines, published and unpublished theses of various Universities in Tamilnadu, annual reports of the colleges and also from various websites.

1.8. Construction of Questionnaire

In order to collect the primary data from the students in the Engineering Colleges Affiliated to Anna University of Technology, Tirunelveli, a comprehensive questionnaire was prepared and administered. Based on the variables and the objectives identified for the present study the questionnaire was prepared. The questionnaire was then handed over to the experts for their critical evaluation. It was revised in the light of their comments. Then, a pre-test of the questionnaire was conducted with 25 students in the Engineering Colleges Affiliated to Anna University of Technology, Tirunelveli. In the light of their comments, the questionnaire was modified by incorporating all valid comments. After the revision of the pre-test questionnaire, the final draft was prepared. A pilot study with the help of another 25 students belonging to the study area was conducted. Then the questionnaire was finalised and used for collection of primary data.
1.9. Sampling Design

The study area covers four districts namely Kanyakumari, Tirunelveli, Tuticorin and Virudhunagar. The researcher has identified four colleges at the rate of one college from each district considering the importance of their location and academic performance for the study. A sample of 50 students from each college was chosen, by using stratified and systematic sampling technique. The total sample size of the study is 200 wherein all the identified variables are represented.

1.10. Operational Definitions and Concepts

The operational definitions of concepts used in the present study are given below

1.10.1. Address Book

It is a daily calendar containing names, addresses, phone numbers and other valuable information of engineering college students under study.

1.10.2. Available Time

The amount of time available to the students of selected engineering colleges for academic and other related activities in an academic year.
1.10.3. **Allocated Time**

The amount of time allocated for the students of selected engineering colleges for their academic and related activities in an academic year.

1.10.4. **Learner**

It means, a student who is undergone or undergoing a course in a selected engineering college of selected districts under study.

1.10.5. **Educator**

It means, any teacher who teaches and trains the students of the selected engineering colleges under study.

1.10.6. **College Management Team**

It means that the people who are managing the selected engineering colleges under study. They include the Principal, Vice-Principal and Heads of Departments.

1.10.7. **Parent**

It means either the father or mother or guardian of the selected engineering college students, who are doing courses in engineering colleges.
1.10.8. Engaged Time

The amount of time the student is actively engaged in learning and training in the period under study.

1.10.9. Academic Learning Time

The amount of time actually used by the selected students for their academic learning and training programmes.

1.10.10. Daily Planning

It is the process of fixing time for each academic and related activities by the students in the selected engineering colleges, considering the availability of various resources.

1.10.11. Goal Planning

It is the process of setting the goal and planning to achieve the goal through academic and related activities by the students in the selected engineering colleges considering the end results.

1.10.12. Health

It is a physical and mental well-being of the engineering students of the selected engineering colleges under study.
1.10.13. Multi-Tasking

It means that the student does more than one thing at a time for getting quick and best results.

1.10.14. Organizing Life

It is the process of planning, organizing, distributing and controlling of the system of life style within and outside the college premises by the students of selected engineering colleges.

1.10.15. Stress

The adverse effect on the selected engineering students when the reality falls short of their expectation.

1.10.16. Success

It is a thing which is related to the end academic results of the selected engineering college students.

1.10.17. Time

It means that the total hours of a day used for both academic and other activities by the students of selected engineering colleges under study.
1.10.18. Time Log

It is a tool to catalog how the time is being spent by the students to increase the productivity.

1.10.19. Time Management

It is an art of planning, organizing, directing and controlling of the available time by the selected students of engineering colleges under study for attaining the best results during their period of the study.

1.10.20. To Do List

A written list of what one has to do and what one wants to do over the next 24 hours. It is a roadmap for leverage the next 24 hours to maximize the success.

1.10.21. Working Smart

Leveraging the limited time of the student has each day to maximize results through simple time management tools.

1.11. Framework of Analysis

In order to analyse the data collected from the respondents, the researcher has used the following statistical tools for analyzing the data.
1.11.1. Chi Square Test

The Chi-Square statistical tool is the most commonly used to evaluate Tests of Independence when using a cross tabulation (also known as a bivariate table). Cross tabulation presents the distribution of two categorical variables simultaneously, with the intersections of the categories of the variables appearing in the cells of the table. The Test of Independence assesses whether an association exists between the two variables by carefully examining the pattern of responses in the cells; calculating the Chi-Square statistic and comparing it against a critical value from the Chi-Square distribution allows the researcher to assess whether the association seen between the variables in a particular sample is likely to represent an actual relationship between those variables in the population.

The calculation of the Chi-Square statistic is quite straight-forward and intuitive.

\[ x^2 = \sum \left( \frac{(fo - fe)^2}{fe} \right) \]

Where \( fo \) = the observed frequency (the observed counts in the cells) and \( fe \) = the expected frequency if NO relationship existed between the variables.

As depicted in the formula, the Chi-Square statistic is based on the difference between what is actually observed in the table and what would be expected if there was truly no relationship between the variables.
1.11.2. One Way ANOVA

The one-way analysis of variance (ANOVA) is used to determine whether there are any significant differences between the means of two or more independent (unrelated) groups (although you tend to only see it used when there are a minimum of three, rather than two groups). For example, you could use a one-way ANOVA to understand whether exam performance differed based on test anxiety levels amongst students, dividing students into three independent groups (e.g., low, medium and high-stressed students).

ANOVA is a statistical test which analyzes variance. It is helpful in making comparison of two or more means which enables a researcher to draw various results and predictions about two or more sets of data. ANOVA test includes one-way ANOVA, two-way ANOVA or multiple ANOVA depending upon the type and arrangement of the data. One-way ANOVA has the following test statistics:

Where,

\[ F = \frac{\text{MST}}{\text{MSE}} \]

\[ F = \text{Anova Coefficient} \]

\[ \text{MST} = \text{Mean sum of squares due to treatment} \]

\[ \text{MSE} = \text{Mean sum of squares due to error.} \]
Formula for MST is given below:

\[ \text{MST} = \frac{\text{SST}}{p - 1} \]

\[ \text{SST} = \sum n (x - \bar{x})^2 \]

Where,

\( \text{SST} = \text{Sum of squares due to treatment} \)

\( p = \text{Total number of populations} \)

\( n = \text{Total number of samples in a population.} \)

Formula for MSE is given below:

\[ \text{MSE} = \frac{\text{SSE}}{\frac{N - p}{N - p}} \]

\[ \text{SSE} = \sum (n - 1)S^2 \]

Where,

\( \text{SSE} = \text{Sum of squares due to error} \)

\( S = \text{Standard deviation of the samples} \)

\( N = \text{Total number of observations.} \)
1.11.3. Regression Analysis

Regression analysis involves identifying the relationship between a dependent variable and one or more independent variables. A model of the relationship is hypothesized, and estimates of the parameter values are used to develop an estimated regression equation. Various tests are then employed to determine if the model is satisfactory. If the model is deemed satisfactory, the estimated regression equation can be used to predict the value of the dependent variable given values for the independent variables.

1.11.4. Regression Model

In simple linear regression, the model used to describe the relationship between a single dependent variable $y$ and a single independent variable $x$ is $y = a_0 + a_1x + k$. $a_0$ and $a_1$ are referred to as the model parameters, and $k$ is a probabilistic error term that accounts for the variability in $y$ that cannot be explained by the linear relationship with $x$. If the error term were not present, the model would be deterministic; in that case, knowledge of the value of $x$ would be sufficient to determine the value of $y$.

1.11.5. Least Squares Method

Either a simple or multiple regression model is initially posed as a hypothesis concerning the relationship among the dependent and independent variables. The least squares method is the most widely used procedure for developing estimates of the model parameters.
Suppose we have a sample of size ‘n’ and it has two sets of measures, denoted by x and y. We can predict the values of ‘y’ given the values of ‘x’ by using the equation, called the REGRESSION EQUATION.

\[ Y = a + bx \]

The symbol \( y \) refers to the predicted value of \( y \) from a given value of \( x \) from the regression equation.

**1.11.6. Correlation**

Correlation and regression analysis are related in the sense that both deal with relationships among variables. The correlation coefficient is a measure of linear association between two variables. Values of the correlation coefficient are always between -1 and +1. A correlation coefficient of +1 indicates that two variables are perfectly related in a positive linear sense, a correlation coefficient of -1 indicates that two variables are perfectly related in a negative linear sense, and a correlation coefficient of 0 indicates that there is no linear relationship between the two variables. For simple linear regression, the sample correlation coefficient is the square root of the coefficient of determination, with the sign of the correlation coefficient being the same as the sign of \( b_1 \), the coefficient of \( x_1 \) in the estimated regression equation.
Neither regression nor correlation analysis can be interpreted as establishing cause-and-effect relationships. They can indicate only how or to what extent variables are associated with each other. The correlation coefficient measures only the degree of linear association between two variables. Any conclusions about a cause-and-effect relationship must be based on the judgment of the analyst.

One of the most widely used statistics is the coefficient of correlation ‘\(r\)’ which measures the degree of association between the two values of related variables given in the data set. It takes values from \(+1\) to \(-1\). If two sets or data have \(r = +1\), they are said to be perfectly correlated positively if \(r = -1\) they are said to be perfectly correlated negatively; and if \(r = 0\) they are uncorrelated. The coefficient of correlation ‘\(r\)’ is given by the formula:

\[
 r = \frac{n \sum xy - \sum x \sum y}{\sqrt{(n \sum x^2 - (\sum x)^2)(n \sum y^2 - (\sum y)^2)}}
\]

1.12. Scheme of the Report

The present study consists of six chapters.

The Second Chapter “Review of Literature” reviews the existing studies available in the field of present research. It deals with various studies related to Time Management in various organizations with special reference to educational institutions. It covers Introduction, Review of Literature and Summary.

The Third Chapter “Profile of Engineering Education in Anna University of Technology, Tirunelveli” highlights the background of the study area namely time management and the condition of Engineering education in the Anna University of Technology, Tirunelveli in particular and the global scenario in general. It covers Introduction, Origin and Growth of Technical Education in India, Technical Education in Tamil Nadu, Profile of Anna University –Chennai, Anna University Regional Centre- Tirunelveli and Summary.

The Fourth Chapter “Socio-Economic Background of Engineering Students” deals with the effect of various aspects on the time management profile of the students in the study area. It covers Introduction, Socio-Economic Background of the Respondents and Summary.

The Fifth Chapter “An Analysis of the Time Management of Engineering Students” evaluates the personal variables of respondents and performance of respondents. This chapter also analyses the relationship of personal variables with factors of time management behaviour of students in the Engineering Colleges Affiliated to Anna University of Technology, Tirunelveli. It covers Attributes of Time, Principles for Effective Time Management, Time

The Sixth and Final Chapter “Summary of Findings, Suggestions and Conclusion” highlights the facts and figures for better Time Management for higher productivity of students. It covers Introduction, Summary of Findings, Problems and Suggestions and Conclusion.