Annexure-1

One day program on 'Design Your Learning Curve'

Seminar on 'Effective Learning & Value Education'.

An Exhibition on 'History of Famous Academicians' which will be presented by the 1st year students of the Institute.

Seminar Report

Present by

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Secretary, Narula Institute Of Technology, Alumni Association

Narula Institute of Technology

On 7th September,2012

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Prof. (Dr.) J. K. Das
Principal.

Prof. (Dr.) J. K. Roy
Dean (Academic Affairs)

Prof. (Dr.) A. K.Roy
Vice Chancellor, BESU

Dr. Aloke Kr. Bhattacharya,
Ex-Advisor, WBIDC, Ex-Chairman E-Governance
Committee, Govt. Of W.B., Ex- General Manager,
CMC Ltd
Sagarika Chowdhury
President, Alumni Association

B. Introduction

Congratulations on making a very positive choice to become a student in our eminent Institute and a member in our community of Alumni. We are sure that one of our goal is similar to one of your own, i.e. to complete your degree in an efficient and effective manner, and, at the same time, enjoy the responsibilities and privileges of being both a college student and a learner. The Alumni members are committed to advising and working with you to guide your progress to meet this as well as other academic and professional goals you envision for yourself.

On behalf of the Alumni Association Of Narula Institute Of Technology, it is our great pleasure to inform you that we are going to organize a one day program on ' Design Your Learning Curve' on 7th September, 2012 at College premises.

The flavor of the occasion is, everything will be conducted by You, that is by the 1st year students of the Institute, who has just stepped in to the world of Narula! Two eminent dignitaries will be present that day, who will conduct *two sessions* on *"Effective Learning & Value Education"*. They are Prof. (Dr.) A. K.Roy, Vice Chancellor, BESU and Dr. Aloke Kr. Bhattacharya, Ex-Advisor, WBITC, Ex-Chairman E-Governance Committee, Govt. Of W.B., Ex- General Manager, CMC Ltd. Beside this there will be one Exhibition on *'History of Famous Academicians'*.

We want your whole hearted participation and support for this event. This is your great opportunity to show your respected Seniors WHAT YOU CAN DO!!! Come and give your BEST!

In closing, once again we want to WELCOME you to the Alumni Association! Please know that all of us in the association and are committed to assisting you in every manner possible to make your work and experiences at Narula as positive and rewarding as possible.

C. SUMMARY

The Alumni Association-Narula Institute Of Technology cordially invites you in a one day program 'Design Your Learning Curve' on 7th September,2012 at college premises. The program is divided into two parts. One having a seminar on 'Effective Learning & Value Education' which will be delivered by two most eminent dignitaries Prof. (Dr.) A. K.Roy, Vice Chancellor, BESU and Dr. Aloke Kr. Bhattacharya, Ex-Advisor, WBIDC, Ex-Chairman E-Governance Committee, Govt. Of W.B., Ex- General Manager, CMC Ltd. and the other having an Exhibition on 'History of Famous Academicians' which will be presented by the 1st year students of the Institute

D. Welcome Address

Initially introduced in educational and behavioural psychology, the term has acquired a broader interpretation over time, and expressions such as "experience curve", "improvement curve", "cost improvement curve", "progress curve", "progress function", "start-up curve", and "efficiency curve" are often used interchangeably. In economics the subject is rates of "development", as development refers to a whole system learning process with varying rates of progression. Generally speaking all learning displays **incremental change** over time, but describes an **"S" curve** which has different appearances depending on the time scale of observation. It has now also become associated with the evolutionary theory of punctuated equilibrium and other kinds of **revolutionary change** in complex systems generally, relating to innovation, organizational behaviour and the management of group learning, among other fields. These processes of rapidly emerging new form appear to take place by complex learning within the systems themselves, which when observable, display curves of changing rates that accelerate and decelerate. Established in the year 2001, the sprawling five acre campus with a built up area of 25333 sq.m. Is located at Agarpara, in the outskirts of the North Kolkata. It is also the Centre for School of Management Studies Narula Institute of Technology. also including 10 foreign students are pursuing various courses offered. A faculty comprising 140 Professors, Associate Professors, and Assistant Professors assist students with State of Art equipment. The campus has 55 class rooms, 400 seats seminar hall, 61 laboratories, 750 computers with Leased Line and Wi-Fi connectivity and a library with over 45,000 books and 4000 journals including e-journals (National & International). Hostels accommodation is available for all aspirants.

E. Theme Address

Learning curve in psychology and economics

The first person to describe the learning curve was Hermann Ebbinghaus in 1885. He found that the time required memorizing a nonsense word increased sharply as the number of syllables increased. Psychologist Arthur Bills gave a more detailed description of learning curves in 1934. He also discussed the properties of different types of learning curves, such as negative acceleration, positive acceleration, plateaus, and give curves. In 1936, Theodore Paul Wright described the effect of learning on labour productivity in the aircraft industry and proposed a mathematical model of the learning curve.

The economic learning of productivity and efficiency generally follows the same kinds of experience curves and has interesting secondary effects. Efficiency and productivity improvement can be considered as whole organization or industry or economy learning processes, as well as for individuals. The general pattern is of first speeding up and then slowing down, as the practically achievable level of methodology improvement is reached. The effect of reducing local effort and resource use by learning improved methods paradoxically often has the opposite latent effect on the next larger scale system, by facilitating its expansion, or economic growth, as discussed in the Jevons paradox in the 1880s and updated in the Khazzoom-Brookes Postulate in the 1980s.

F. Keynote Address

The familiar expression "steep learning curve" may refer to either of two aspects of a pattern in which the marginal rate of required resource investment is initially low, perhaps even decreasing at the very first stages, but eventually increases without bound.

Early uses of the metaphor focused on the pattern's positive aspect, namely the potential for quick progress in learning (as measured by, e.g., memory accuracy or the number of trials required to obtain a desired result) at the introductory or elementary stage. Over time, however, the metaphor has become more commonly used to focus on the pattern's negative aspect, namely the difficulty of learning once one gets beyond the basics of a subject.

In the former case, the "steep[ness]" metaphor is inspired by the initially high rate of increase featured by the function characterizing the overall amount learned versus total resources invested (or versus time when resource investment per unit time is held constant)—in mathematical terms, the initially high positive absolute value of the first derivative of that function. In the latter case, the metaphor is inspired by the pattern's eventual behaviour, i.e., its behaviour at high values of overall resources invested (or of overall time invested when resource investment per unit time is held constant), namely the high rate of increase in the resource investment required if the next item is to be learned—in other words, the eventually always-high, always-positive absolute value and the eventually never-decreasing status of the first derivative of that function. In turn, those properties of the latter function dictate that the function measuring the rate of learning per resource unit invested (or per unit time when resource investment per unit time is held constant) has a horizontal asymptote at zero, and thus that the overall amount learned, while never "plateauing" or decreasing, increases more and more slowly as more and more resources are invested.

This difference in emphasis has led to confusion and disagreements even among learned people

G. Vote for Thanks.

Prof. Amlan Chakrabarti

HOD-EE

Narula Institute of Technology

I. THE SUGGESTED WAY FORWARD

Learning curves, also called experience curves, relate to the much broader subject of natural limits for resources and technologies in general. Such limits generally present themselves as increasing complications that slow the learning of how to do things more efficiently, like the well-known limits of perfecting any process or product or to perfecting measurements. These practical experiences match the predictions of the second law of thermodynamics for the limits of waste reduction generally. Approaching limits of perfecting things to eliminate waste meets geometrically increasing effort to make progress, and provides an environmental measure of all factors seen and unseen changing the learning experience. Perfecting things becomes ever more difficult despite increasing effort despite continuing positive, if ever diminishing, results. The same kind of slowing progress due to complications in learning also appears in the limits of useful technologies and of profitable markets applying to product life cycle management and software development cycles). Remaining market segments or remaining potential efficiencies or efficiencies are found in successively less convenient forms.

Efficiency and development curves typically follow a two-phase process of first bigger steps corresponding to finding things easier, followed by smaller steps of finding things more difficult. It reflects bursts of learning following breakthroughs that make learning easier followed by meeting constraints that make learning ever harder, perhaps toward a point of cessation.