JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue

JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Different Ways to Teach Technical Drawing Course

[1] Suresh H. K., [2] Shreeshail M. L.

[1]Assistant Professor, [2]Assistant Professor,
[1]Department of Mechanical Engineering, BVBCET, Hubballi-580031, Karnataka, India.
[2]School of Mechanical Engineering, KLE Technological University, Hubballi-580031, Karnataka, India.

Abstract: In professional practice of engineering field, drawing course holds important position. Today most of the engineering graduates are learning the engineering drawing course using computer software interface. However, the skills developed by the students are not at the satisfactory level. In order to meet this objective, the different ways of engaging the drawing courses are briefly discussed in this article.

IndexTerms - Engineering Drawing, Machine Drawing.

I. INTRODUCTION

In present scenario, engineering graduates are learning the engineering drawing course using computer software interface. The drawing skills are developed only with thorough practice. This practice is not just in creating the drawings but also one has to be good at reading the drawings [1]. In this view, the different approach of engaging the drawing course is discussed in this article.

II. METHODOLOGY

Traditionally, the engineering drawings were created using the manual drawing instruments. Now days, the drawings are created with the use of computer software. There are lot of softwares available for use in both commercial space and academic space. Looking into all these, the course instructor has to be aware of all these different ways and apply the best to teaching. For a first time learner, the student should create the drawings using the manual drawing instruments. The drawing skill can be developed easily with this first basic approach of manual drawing. The second approach is taking an out of classroom example and creating the engineering drawing. The third approach is applying the problem based learning activity and teaching the drawing course [2]. Taking all these three approaches in sequence, one can easily learn this engineering drawing course and apply it in their profession.

III. RESULTS AND DISCUSSION

In first approach, use of manual drawing instruments is the necessity. A learner who uses the manual drawing instruments will get to see his or her own drawings, or drawing steps, and if mistakes happen, one can easily rectify. This is simple in terms of steps yet so essential. In second approach, use of out of classroom example is important. A student will learn the planned drawings taking classroom exercises. But the same student will effectively apply the learnt drawing skills to draw a out of classroom example [3]. The third approach is to apply PBL approach, i.e. problem based learning. A student will be given a problem where the solution to that is possible only through drawings. The learnt drawing skills can be applied here in this PBL exercise and thereby enhancing the student's drawing skill [4]. The figure below illustrates the different ways of teaching the drawing course.

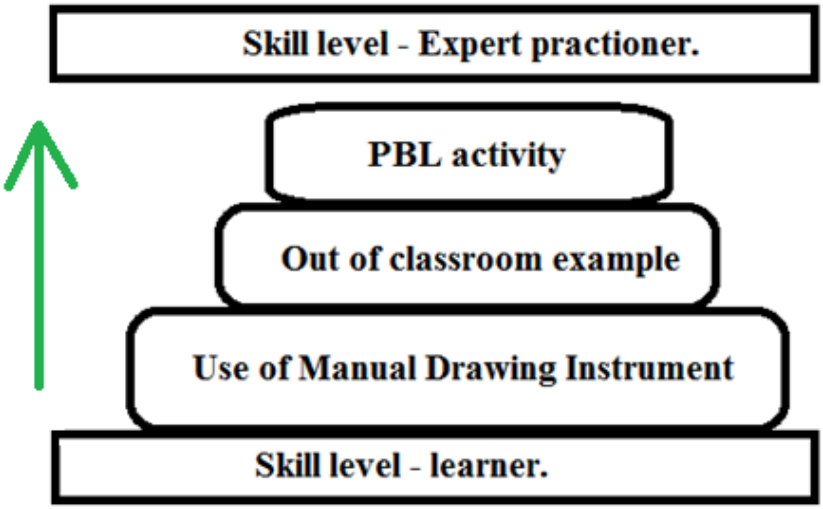

Fig. 1. Different ways of teaching drawing course.

IV. CONCLUSION

The engineering drawing course can be learnt using manual drawing instruments, out of class room activity and using PBL approach. The effective learning is possible only by using all these three approaches to satisfy the objective of the learner.

V. ACKNOWLEDGMENT

I would like to express my sincere gratitude to Dr. B. B. Kottursheattar, Head, School of Mechanical Engineering, Dr. P. G. Tewari, Principal, BVBCET, Hubballi and Dr. Ashok Shettar, Vice-Chancellor, KLETU, Hubballi for providing all sorts of help and support during the course of the work.

REFERENCES

[1] Shreeshail, M. L., and C. M. Koti. "Augmenting the out of classroom learning of machine drawing laboratory course." Journal of Engineering Education Transformations 29, no. 4 (2016): 37-41.
[2] Shreeshail, M. L., H. K. Suresh, Gurupadayya Hiremath, Balachandra S. Halemani, and B. B. Kottursheattar. "An attempt to impart engineering drawing standards through problem based learning approach." Journal of Engineering Education Transformations 34, no. SP ICTIEE (2021): 226-230.
[3] Chang C. H., Apply Discovery Teaching Model to Instruct Engineering Drawing Course: Sketch a Regular Pentagon, Procedia-Social and Behavioral Sciences, 64 (2012), 457-466.
[4] Hussain M., Sahudin S., Samah N. H. A., and Anuar N. K., Students perception of an industry based approach problem based learning (PBL) and their performance in drug delivery courses, Saudi Pharmaceutical Journal, 27-2 (2019), 274-282.