

ESSENTIAL SKILLS FOR PROFESSIONAL DEVELOPMENT

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Abstract

In any field where technology is rapidly changing, it is imperative for professionals working in it to constantly upgrade and update their technical skills and knowledge. All the well-established computer societies require their members, that is those who have already attained professional status, to continue to develop themselves professionally. IT professionals are expected to be personally committed to and be responsible for their professional development. Indeed IT professionals are expected to be continuing self-directed learners who can, with minimal supervision or institutional support, enhance and acquire skills, knowledge and experience to maintain professionalism. To be able to do this, entrants to the IT profession must be equipped with important life skills which include skills for self-development and self-management. These skills should be acquired and developed during the initial formation stage of the IT professionals, that is when aspirants to the profession are undergoing formal IT education and training in a tertiary education institution. This paper looks at what the individual professional should do for himself as far as continuing professional development is concerned. The necessary skills for effective self-development and continuing professional development are identified. The paper also examines how such skills can be imparted and developed in a formal IT course at the tertiary level.

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1. THE IMPORTANCE OF CONTINUING PROFESSIONAL DEVELOPMENT

The professional development of an IT professional is the education, technical training and work experience necessary for him to attain or maintain professionalism. It is a progressive process through which his technical competence and capabilities are developed. This process normally begins with a formal course of studies and practical training in the professional area. This process continues and is

intensified in the work place where he practises as a professional. Professional development therefore has two stages: initial professional development and continuing professional development [1].

Those working in the IT industry, where technology is rapidly changing, face the risk of technical obsolescence very quickly. Constant upgrading and updating of their skills and knowledge is therefore absolutely essential. There is also a need for systematic continuing professional development in order to raise the standard of competence amongst IT professionals. Professional societies normally require their members to commit themselves, through their professional codes of conduct, to maintain professional competence [2,3,4]. For example, members of the Singapore Computer Society are obligated to "always aim to increase their competence [2]." They have to continue to upgrade their skills and knowledge, and be aware of relevant development in the technology they are involved in. However, a code like this has very little force. Since IT professionals do not need a licence to work, all that the Society can do is to threaten to expel members from the Society if they do not comply.

An effective means to ensure that members will be committed to professional development is through the introduction of a Professional Development Scheme (PDS) [5]. Those who want to apply for professional membership should demonstrate that they have adequate relevant education, training and experience. Those who want to continue as members will have to keep their knowledge up-to-date and perfect their skills. They are responsible for their own professional development and are expected to take the initiative in widening their knowledge and abilities beyond the purely technical [6]. The establishment of a review mechanism is also necessary in such a scheme. Society members must ensure that all the courses they have attended, all training they have received and all work experience are accurately recorded and validated. The record will have to be submitted for review when an application, for full membership or for renewal of membership, is made.

IT professionals should not feel that they are being forced into professional development activities. They must realize that learning and professional development is a lifelong process and does not stop after they have obtained a formal qualification in IT. They must understand that it is their duty and responsibility to develop themselves. They must be personally committed to their own professional development.

The ability of the IT professional to continue to develop himself is important. He needs to constantly upgrade and update himself in order to maintain his professionalism. Technological, social and organizational changes will have a profound impact on his career and his profession. He needs to have new knowledge and skills to help him to stay ahead and be successful in his career.

2. SKILLS NECESSARY FOR SUCCESSFUL PROFESSIONAL DEVELOPMENT

The IT professional needs to be equipped with the necessary life skills to help him

in his continuing professional development efforts. The IT professional must have the ability to review his existing skills and knowledge and to compare them with the known requirements of his present job or a higher level job he is aspiring for. He should be able to identify the areas in which he needs to further develop himself, and then prioritise them. He must also be able to select the best available methods to help him to improve his skills and to increase his knowledge. He should be able to take advantage of the advice of his superiors and to come up with a suitable self-development plan with all the goals and milestones clearly spelt out. He must be able to manage his time carefully in order to complete his self-development activities despite of the pressures from his job and the demands from his personal life. He must be able to monitor his progress regularly and renew his plan accordingly.

The IT professional should also be aware of all organisational, social and technological developments that will have an impact on his job and his profession. He should be able to upgrade and update himself in order to prepare for the inevitable changes that will result from such developments. He should have the ability to evaluate the effectiveness of the self-development programme in terms of how it has helped to make him more effective in his current job, or more prepared for a different or higher level job.

Some of the self-development abilities expected of an IT professional, identified and discussed above, are very close to Knowles' "competencies of self-directed learning" [7] and it is not surprising because self-directed learning has been equated with situational independence or self-management [8], self-organization, and lifelong learning [9]. It is quite apparent that in order to continue to develop himself professionally, the IT professional must possess essential life skills like self-development skills, learning skills, self-management skills and self-organization skills.

"Industry needs people who know their own strengths and weaknesses and how to maximize one and minimize the other; who understand and appreciate the necessity of accepting responsibility for their own lives, their career progression, and their development. Everyone must realize that learning is a lifetime process that does not stop on leaving higher education. Higher education must ensure that students understand this [10]." One important area in which the tertiary education institutions should look into is to give self-development skills, which are transferable life skills, high priority in skill development programmes [11].

The truly successful graduates will be those who have the inclination towards and are prepared for lifelong learning and continuing professional development. Courses should therefore be designed and conducted in such a way that the students will have plenty of opportunities to develop their self-development and other complementary life skills so that when they graduate, they will be able to continue to develop themselves personally and professionally. Because of the rapid developments in the IT industry, it is even more important for institutions responsible for producing IT professionals to equip their students with these life skills during the initial stage of their professional development.

3. COMMON SKILLS DEVELOPMENT IN CCS

The Centre for Computer Studies, Singapore, established in 1982, runs a Diploma Computer Studies course which is validated by the Business and Technology Education Council in the UK. In designing its Diploma course, the Centre had made references to the course guidelines published by BTEC. The course guidelines require all centres to include the development and assessment of common skills in their courses. Common skills are "transferable skills which play an essential role in developing personal effectiveness in adult and working life... they provide a foundation for continual learning to help the individual who, inevitably, faces a series of choices in work, education and training throughout life [12]." This requirement for common skills to be incorporated into vocational education is actually a response to the growing demands from industry and commerce for new employees to be equipped not only with technical skills and knowledge but also the essential life skills. BTEC identified five common skill areas in July 1986 and two additional areas in 1991. The common skill areas are:

- a. managing and developing self;
- b. working with and relating to others;
- c. communicating;
- d. managing tasks and problem solving;
- e. applying numeracy;
- f. applying technology; and
- g. applying design and creativity.

In the course guidelines published in 1990 [13], BTEC stressed that the common skills must be taught and developed, not just assessed. It should be clear in any course proposal where the common skills are taught.

Each common skill has a number of competences that the students must develop. These competences are what the learners will be able to do. As far as the common skill Managing and Developing Self is concerned, students should develop the abilities to:

- a. manage own roles and responsibilities;
- b. manage own time in achieving objectives;
- c. undertake personal and career development; and
- d. transfer skills gained to new and changing situations and contexts [12].

To be able to manage and develop themselves, students should know how to identify, accept and manage personal and work roles and responsibilities; recognise constraints of the identified roles and responsibilities; recognise and seize opportunities for self-development; and develop the criteria for and appraise own performance. To be able to manage one's time is to be able to use time effectively. The student should know how to apply time management techniques to achieve his objectives. He has to be competent in planning and managing his personal and career development. This requires the student to identify his skills weaknesses and the requirements (current and future) of his job or career. He should also learn to devise an action plan, monitor his own progress and make the appropriate adjustments to the

plan. He should know where and when to seek help and advice. The student should develop an ability to apply his current skills and knowledge to new and changing situations and contexts. The criteria used for assessing the students' performances in these competences are also clearly specified by BTEC in [12].

BTEC suggested the use of a programme of integrative assignments (PIA) as a vehicle for the development and assessment of common skills and the vocational elements of the course. It is essentially a programme of assignments and project work designed to strengthen coherence in the course. Student-centred teaching strategies and greater learner involvement in assessment are also suggested.

The common skills as stipulated by BTEC were introduced in the 1990/1991 academic session to the first year students. They were taught in lectures and tutorials, and the topics on Managing and Developing Self included:

- a. Individual Strengths and Weaknesses
- b. Roles and Responsibilities
- c. Time Management, Time Management Techniques and their Applications
- d. Changes and the Management of Change
- e. Setting Objectives, Planning and Progress Monitoring
- f. Self-evaluation

Lectures alone do not help to develop the self-development and self-management skills that students need to have. The students took an objective look at their individual weaknesses in a self-appraisal exercise. They had to react to seventy statements in a survey form; the scores they obtained indicated possible weaknesses or 'blockages' [14] like inadequate self management, unclear personal growth, etc. In another exercise, which was based on self-evaluation, students were asked to record their activities for a week. They were then asked to identify those activities that would and those that won't help them achieve the individual objectives/goals they had defined earlier. There were also small group discussions where the students were asked to share their individual experiences in time management, problems encountered and how they overcame them. In the last exercise, students had to assess their own self development skills and then propose how these skills could be further developed.

It would be ideal to find out, as soon as they join the Centre, how competent each student is in the common skills in order to help him acquire new skills or to develop his weaker ones. His progress should be monitored and the necessary feedback, encouragement and guidance provided.

Some students on the course do not see the significance of common skills and are therefore not serious about the individual or group activities [15]. Much more has to be done to help them appreciate the usefulness of the life skills they have acquired. Students should be made aware that employers are already assessing life skills during interviews and that they should be able to discuss, among other things, what they have done, what they have learnt and how such transferable life skills and competencies they have gained in the course can be used in their jobs. Students should therefore be advised to make references to these competencies in their

curricula vitae when applying for jobs and when interviewed, to demonstrate that these life/personal skills are not just more knowledge they have acquired but are skills they can make use of in their jobs and professional development. Perhaps students will realise the importance of common skills if a demonstration of professional, personal and technical development will contribute substantially to the final year grade, like what is happening in a polytechnic in the UK [16].

4. CONCLUSION

IT professionals are responsible for their own professional development and are therefore expected to take the initiative to broaden their knowledge and to perfect their technical skills. Very few IT professionals need to be persuaded to participate in continuing professional development activities. Generally, IT professionals know how important such activities are. However, in order to be able to take on an active role, they need to be equipped with the essential life skills like self-management and self-development. The IT education institutions should also be concerned with developing common skills. These skills will prepare their students for continuing self and professional development after graduation, and will help them cope with various other responsibilities of adult life and work.

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