

Most Important Criteria to Evaluate and Optimize the Ability of Software Engineering Student

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Abstract: *The number of fresh graduate students that cannot find a job are increasing because most of the companies are looking for the employee who have an experience. However, the fresh graduate student cannot get an enough experience through their bachelor degree, and at the same time, each student is different from others in understanding level. So, there are two main criteria that can be used by all companies to compare between each applicant, these criteria are GPA, Soft skills.*

Keywords: software engineering students; GPA; Soft Skills

1. Introduction

Fresh graduate Students evaluation and assessments have been enhanced recently. the educational evaluation has become a necessary to measures the students' performance. However, higher education committees behold the quality of higher education from the improvement of student performance, and these committees give a major attention to student learning outcomes based on evaluation dimensions [1]. Here, after evaluate the students, they will be prepared for the Labor market. The process of Recruitment will be done in order to select the best applicant.

In addition, Recruitment comprises the process of attracting, screening, selecting, and hiring the best applicants according to their skill, experience, and their fit to the organization. Recruitment is a lengthy process while effectiveness of cost should also be taken into consideration to assure success [2]. Acquiring the right applicants at lowest possible cost contributes toward having a workforce that is effective and efficient aside from giving the company a strong competitive advantage. In searching and attracting applicants and strengthening their human capital, companies globally irrespective of size employ strategies of recruitment, either formal or informal [3].

Employee engagement and retention is a growing concern in human resources (HR) offices across the United States [4]. Along with this trend, HR is continually challenged with gaining and retaining employees who are high performing. With this, companies view conducting assessments as an important HR selection practice and over 75% of companies are using some type of assessment to aid in hiring people from external sources to aid in productivity or retention. More specifically, over half are using personality assessments or cognitive ability assessments for pre-hire purposes [5].

Success of organization is highly contributed by having decision-makers that could make sound employee selection decisions [6]. Sometimes, the decision maker's intuition becomes part of the selection process [7].

fresh graduate students who's looking for job doesn't have an experience, so they only took the courses in their bachelor degree and this will not be the only factor that effect on their performance. Other criteria should be effect on the students, like the skills that he/she gained from his/her journey in the bachelor degree. Most of companies give a training to the new applicants, so the applicants must have a skill to get the idea, like communication skills and other soft skills.

2. Literature Review

In this section, the criteria that must take in Recruitment process is described based on the previous studies. As mentioned, some of criteria that companies use to recruited employees are not suitable to use in fresh graduate case. For instance, the experience; because most of fresh graduate students doesn't have any experience. So, the most important criteria for recruited the fresh graduate students are listed below.

Grade point average (GPA)

A grade point average (GPA) is a calculation of the average student's total earned points divided by the possible number of points. This grading system calculates for all of his or her complete education career [8].

Hanson et al (2014) considers the GPA as a criterion in their study. They conclude that the Employees with high GPAs are not included as they are less likely to need improvement strategies, while employees with low GPAs are not included as the program would not be able to address all their needs. In [9] author examined the relationship of academic motivation types to total GPA and controlled for academic achievement as measured by entry qualifications upon entering the university.

In [10] authors said that Students with higher GPAs, who studied for longer hours and reported to be more motivated to succeed, did better academically. In addition, according to [11], GPA was proven once again to be the most important predictor of student outcomes, regardless of class section enrolment

Soft skills

The soft skills are the skills that the students gained through his/her bachelor degree. According to [12], the top four skills desired were written communication, verbal communication, ability work in a team, and self-motivation and learning. In addition, team work is a reasons for continuing in practice. At Furman University, two experiential courses were offered to students, both of which required teamwork and interaction with a client [13].

Authors in [14] proposed a balanced scorecard model for software project management of students' teamwork. During educational process, within teamwork they need to organize, monitor and evaluate their work until results are completed and submitted to teaching staff.

The employee will be able to gather information from observation, experience, reasoning, and/or communication, analyze that information, generate alternatives, solve problems, and evaluate the process and solution. Critical thinking is based on intellectual values that go beyond subject matter to include clarity, accuracy, precision, evidence, fairness, and multiple perspective [15]. Curtin University includes up to nine graduate attributes in every unit of study. One of these attribute was think critically.

There are many causes of employee difficulty such as stress, poor time management, employment pressure while studying and life issues to name a few. However, a major cause is student workload. This is a precondition to good studying and learning and is among the most important course-related factors that account for student dropout [16]

Authors in [17] conclude that Self-assessment of students' knowledge as the basis for constructing their career and educational plans is inadequate to the realities of school and work. However, as English language is now the word language, it is imperative that everyone could communicate in it. The evaluation of a person's language is based on some criteria. First is the capacity in writing using English language. As example, the process of selection in Dumlupinar University includes English Proficiency Exam. Here, students are required to sit for an exam known as English Proficiency Exam. This exam comprises a multiple-choice questions and the students can score a maximum of 80 points [18]. Following the evaluation of the results of the written exam, the students would sit for an oral exam. This is for determining their level of speaking skill. In the context of employees, evaluation using oral examination is more challenging in comparison to the use of a written exam.

According to [4] the major of Business and Tourism Translation-Interpretation at Ho Chi Minh City Open University (HCMC OU) has been introduced to the training program since 1998. The purpose of the program is to train students to be fluent in four languages skills as well as to equip them with specialized knowledge to use in professional work. Buyse and Lievens conclude that the interviews and personality tests are often used to measure non-cognitive (e.g., interpersonal) characteristics. Recently, situational judgment tests (SJTs) have drawn attention since there is evidence that SJTs can be valid predictors in

medical admission contexts, they found that the SJT might be a useful supplement to cognitive tests [19].

Razmjou claims that theoretical knowledge and practical skills alone are not adequate to prepare students to face the developments in the field. Nižnan use data from an online adaptive system slepemapy.cz for practice of geography facts (e.g., names and location of countries, cities, mountains) [20]. The system estimates student knowledge and based on this estimate it adaptively selects questions of suitable difficulty. Here, next section is discussed the review studies that done regarding to the criteria for recruitment the fresh graduate students.

Authors in [21] stated that the most important criteria that used in the literature for evaluate students are GPA and soft skills. However, GPA and soft skills are considered as a main concern for evaluating students studied in different departments.

3. Discussion

The previous studies show that there are two main criteria to evaluate fresh graduate students in order to recruit them. These criteria are; 1) GPA, 2) soft skills. However, soft skills are the skills that each student may gained through the bachelor degree, for instance, communication skills, teamwork, leadership, ..., etc. Furthermore, by referring to the studios regarding the GPA criteria, it shows that the students can be evaluated by his/her GPA. Soft skills criteria are also important; if the employee got a high mark in bachelor degree but he/she doesn't have a communication skills or other skills, how he/she can communicate with others employees and clients. On other hand, if the employee having a soft skills and he/she cannot study well or understand the issues it will be a problem. So, these criteria are very important to recruit fresh graduate students.

4. Conclusion

Fresh graduate students are looking for a good job, but the most common problem that face them is that they don't have an experience. However, every fresh graduate student has a CGPA and some of the skills that gained in his/her bachelor journey. That's the only criteria that most of students have after graduate. Companies need to evaluate the applicants based on these criteria; in case if the applicants are fresh graduates. Here, the company will decide which criteria is more important than the other one. For instance, if the job description is about the professionalism in communication they will give the importance to the soft skills.

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