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Employers Feedback on the Performance of the College of Computing Studies, Information and Communication Technology (CCSICT) Graduates

Abstract: - This study is an assessment of the employer's feedback on the performance of College of Computing Studies, Information and Communication Technology (CCSICT) graduates in the workplace with respect to quality and quantity of work, job knowledge, and working relationships.

The study used a descriptive research method utilizing the employers of employed graduates as key informants. The respondents were purposely chosen who are managers or supervisors of companies and institutions of the graduates. Data from the 98 employers were gathered using a survey questionnaire. Weighted mean, frequency count, percentage, and rank were used to interpret the result of the survey.

Results showed that graduates are employed in the Information and Communication Technology (ICT) industry. This means that the graduates have jobs related to their course. The majority of employers who participated in the survey are from the private sector. Employers were very satisfied with the graduate's quality and quantity of work, job knowledge, and work relationship. The top attributes used to evaluate the graduates' performance were the quantity of work and the working relationships. The findings suggested putting emphasis on written and oral communication skills and improving networking, troubleshooting skills, and graphics and design skills.

Keywords: Information Technology, feedback, employers, Performance, employer satisfaction

Introduction

Graduates are the most significant factor in measuring the effectiveness of an educational program of every institution. It determines whether institutions are successful in inculcating and developing the appropriate knowledge, attitudes, skill, habits, and values expected from the graduates once able to enter the world of work (Mehrotra & Elias, 2017).

One of the most significant factors in measuring the effectiveness of an educational program by the institution is through the performance and competencies of the graduate's acquired knowledge, attitudes, skills, habits, and values which can be applied in the world of work. The performance of the graduates possessed can be determined through the employer's feedback. Dotong, et al. (2017) noted that the feedback of the employers regarding the performance of the graduates is important to input to academic institutions of the program to address some gaps in the job performance which are not yet fully evident to the graduates as members of the organization. It is a good measure of determining the responsiveness and relevance of any program curriculum (Sannadan, Lang-ay, & Guidangen, 2016)

The feedback of the employers on the performance of the graduates is an important input to the curricular reforms and it helps formulate better decisions to improve or enhance the performance of faculty and the services being offered. It is a constructive criticism because it highlights the weaknesses as well as strengths of the program. Also, feedback is important in order to remain aligned with the vision and mission of the university, the goals of the college, and the objectives of the program.

The College of Computing Studies, Information and Communication Technology in particular is making strategies to improve the competence of graduates that would prepare them for the world of work to be more effective, more competitive, and innovative. The feedback of the employers on the performance of CCSICT graduates will yield evidence of the relevance of the curriculum and the quality of instruction it provides. It is therefore important to study and evaluate the employers' feedback to provide information in assessing and improving the BSIT, BSCS, and BSCpE programs and to meet the demands of society and the industries.

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Objectives of the Study

Generally, this study aimed to assess the performance of CCSICT graduates based on feedback from their employers.

Specifically, it aimed to:

1.   Determine the employers company profile
2.   Assess the level of satisfaction of employers on the following:
a.   Quality of Work,
b.   Quantity of Work,
c.   Job Knowledge, and
d.   Working relationships
3.   Determine the employer's suggestions to improve the quality of graduates

Methodology

The descriptive research design with a self-made questionnaire was employed. Employers or direct supervisors of the CCSICT graduates from 2016-2021 were only considered in the study. Out of 235 identified employers, only 98, or 41.70% responded to the survey. The participants of the study are 57 employers of Information Technology, 22 for Computer Science and 19 for Computer Engineering. The selection of employers was based on the following inclusions; 1) direct supervisor of the ICT graduates and 2) employers of the graduates for six months and up.

A survey Questionnaire was utilized and a pre-test was conducted among senior faculty researchers and IT experts to ensure the reliability and validity of the items and to obtain other criteria or information in assessing the performance of an employee.

In identifying the criteria to assess the performance of the graduates, ten (10) of the ICT graduates of 2006-2010 who are already supervisors or heads of ICT-related professions were asked regarding the criteria to assess the performance of employees. Among the ten criteria provided by the proponent, quality of work, productivity level or the quantity of work, job knowledge, and working relationship were the top four that were chosen. Moreover, the instrument was pilot-tested by ten (10) supervisors or heads of ICT.

Questionnaires were personally distributed to the graduate employers within Isabela province. Likewise, graduates were asked for their employer's email address, and the link to the online survey questionnaire was sent to that address. The employers were informed regarding the objectives and purpose of the study and that their participation in the study is voluntary and are free to withdraw from it at any point and for any reason. However, they were reassured that their answers will be treated with the utmost confidentiality and used only for the purposes of the research.

The survey instrument contains data to gather the company profile of the employers. Part I focuses on the profile of the employer's company, the nature and types of their business, the length of service rendered by the ICT graduates, and their job status. Part II comprised a satisfaction model where employers were asked to rate their satisfaction with the graduate's performance on the quality of work, quantity of work, job knowledge, and working relationships. The employers were also asked to provide comments or suggestions they thought would improve the quality of graduates.

Weighted mean, frequency count, percentage, and rank are the statistical tools used to interpret the result of the survey.

A Likert Scale was used to determine the employer's feedback on the performance of CCSICT graduates. The following scales of means were employed to determine employer satisfaction

Table 1. The five (5) point scales and description equivalent as presented below.

Range	Description Degree of Satisfaction
4.21 – 5.0	Very Satisfied (VS)
3.41 - 4.20	Satisfied (S)
2.61 - 3.40	Somewhat Satisfied (SS)
1.81 - 2.60	Less Satisfied (LS)
1.0 – 1.81	Least Satisfied at all (LSA)

Results and Discussion

This section reveals the employers' companies' profiles (nature of business, types of company, and the length of service rendered by the graduates in their company). It also shows the employer's feedback on the performance of the graduates as to quality and quantity of work, job description, and working relationship. In the article of Gerber (2022); Ansari, (2014); Ahmed (2020), they listed the ways to evaluate an employee and criteria to assess their performance and these are quality of work(competence) quantity of work (level of productivity), job knowledge, and working relationship (teamwork and communication skills).

Employer's Nature of Business

The employer's nature of business is shown in table 2. The data shows that 46. 93% of the respondents are from the Information and Communication Technology (ICT) industry. This means that the CCSICT graduates were employed in the ICT industry which is related to their course or field of specialization. It is noted in a study of Albina, and Sumagaysay, 2020) that the majority of the ICT graduates (69.78% or 97/139) perceived their job as related to the course they finished. This indicates that the information technology and engineering skills of the graduates were focused more on services-oriented tasks and functions such as system and web application development, network management and administration, and other Business Process Outsourcing technology works. However, the lowest percentage of respondents were in the wholesale and retail sector, hotels, and restaurant management (1.02%).

On the other hand, 27.55% of the graduates are working in other industries such as Call centers, General Administration, Factory work, and others.

Table 2. Employers Nature of Business

Nature of Business	Frequency	Percentage	Rank
Information and Communications Technology	46	46.93%	1
Others	27	27.55%	2
Education	7	7.14%	3
Financial Intermediation	5	5.10%	4

Real Estate, Renting and Business	4	4.08%	5
Health and Social Work	3	3.06%	6
Transport Storage and Communication	3	3.06%	7
Wholesale and Retail Trade	2	2.04%	8
Hotels and Restaurants	1	1.02%	9

Employers Types of Employers Company or Organization

Fig. 1 shows the type of employer's company or organization. It shows in the figure that the majority of the employers who responded are from private companies with 76.53 %. This means that most ICT graduates have high employability in private companies or organizations while only 26.47% are connected with government institutions. It is noteworthy in a study of Buraga (2021) that greater percentages of ICT graduates are employed and most of them are employed in private companies.
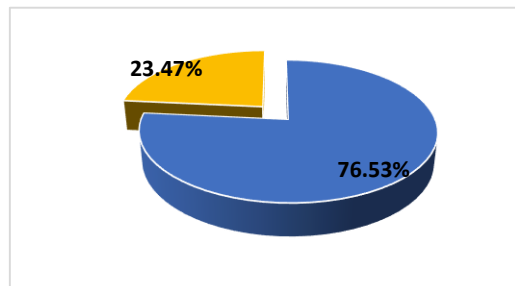

Figure 1. Types of Employers Company

Employment Status of Employed Graduates and Length of Service

Fig. 2 shows the graduates' employment status as well as the number of months or years they have worked for the company or industry. It is interesting to note that the employers responded that 21.40% of the graduates who are employed by their company have been employed for more than two years in the business, and the majority of them (30.61%) have Full-Time/Permanent/Regular status. Only 4.08% of graduates have Contractual or Casual employment. Of the 98 graduates, 34.70 % are employed for one to two years, with 11.22% of them in permanent positions, 8.16% in contractual or casual ones, and 1.02% in positions. Graduates who are working for six to twelve months got a 26.50%, where 13.27% of them are contractual/casual employees, 5.10% are job order, and 4.08% have both permanent and temporary statuses. On the other hand, 6.12% of contractual/casual employees and 3.06% of job-order employees are among the 17.30% of recent graduates who have been employed for at least six months.
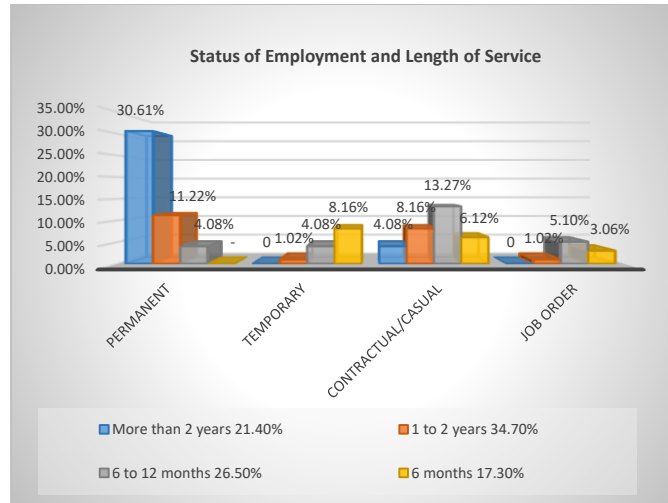
Figure 2. Graduates Employment Status and Years of Service

Quality of Work

The Employer's Satisfaction with the quality of work of the CCSICT graduates is shown in Table 3. The results indicate that graduates act appropriately even in the most difficult situations with a mean of 4.8. It also revealed that graduates show creativity and initiative when tackling complicated work or problems and look for ways to improve and promote work quality with a mean of 4.76 respectively. Mackey et. al (2013) stated that being adaptable requires one to also possess problem-solving skills and creative thinking. It is one important attitude because having high adaptability decreases employees' perception of abusive supervision. Also, Succi and Canovi (2019) noted that employers have certain requirements (skills) that are essential to the success of their companies, and one of these are: leadership skills, critical thinking skills, analytical & problem-solving, interpersonal skills, imagination or creativity, and presentation skills (Shukla & Kumar, 2017). Also, employers value the ability to think creatively to find solutions or generate new ideas. Creative employees can collaborate effectively with their teams and share ideas to improve processes or workflows (Herrity, 2019). On the other hand, demonstrating strong knowledge of and compliance with all policies and procedures got the lowest mean rating of 4.56. Graduates must take the right amount of collaboration, and the right methods to measure understanding to comply with the policies and procedures of their company. Generally, graduates of CCSICT from ISU Cabagan Campus were found by their employees to be accurate, diligent, and competent in their work with a total mean of 4.67. This means that the employers are very satisfied with the quality of work of the CCSICT graduates.

Table 3. Employers Satisfaction with the Quality of Work of the CCSICT Graduates

A. Quality of Work	Mean	Description
1. Acts appropriately even in the most difficult situations	4.8	Very Satisfied
2. Shows creativity and initiative when tackling complicated work or problems	4.76	Very Satisfied
3. Looks for ways to improve and promote quality	4.76	Very Satisfied
4. Applies feedback to improve performance	4.72	Very Satisfied
5. Generates ideas and initiates action to solve problems	4.68	Very Satisfied
6. Applying appropriate IT skills in performing required duties/functions	4.64	Very Satisfied

	Mean	Description
7. Displays commitment to excellence	4.60	Very Satisfied
8. Look for innovative strategies and ideas to achieve and exceed the department's set goals.	4.6	Very Satisfied
9. Demonstrates accuracy and thoroughness	4.56	Very Satisfied
10. Demonstrates strong knowledge of and compliance with all policies and procedures	4.56	Very Satisfied
Total Mean	**4.67**	Very Satisfied

Quantity of Work

Table 4 shows the Employer's Satisfaction with the quality of work of the graduates. Interestingly, the employers gave the highest rating on the item "can be counted or even if extra time is required" with a mean rating of 4.84. This means that CCSICT graduates are hardworking and show dedication to their work. Graduates also complete assigned work efficiently and in an organized manner within the time frame specified, work to meet objectives, and see a task through to completion, and are independent with a mean rating of 4.82 and 4.80 respectively. Juneja(n.d.) pointed out that employees need to be efficient, independent, and proactive for better productivity. On the other hand, the item "accepts and adapts to change easily" got the lowest mean rating of 4.64. This might be contributed to the vast changes in software and upgrading of hardware used to perform their work. Overall, the employers are very satisfied with graduates' quantity of work with a mean rating of 4.75. It shows that the graduates are productive, independent, and meet the company's deadline. This means that CCSICT graduates take their work seriously and do not treat it as a mere source of burden.

Table 4. Employers Satisfaction with the Quantity of work of the Graduates

Quantity of Work	Mean	Description
1. Can be counted or even if extra time is required	4.84	Very Satisfied
2. Complete assigned work efficiently and in an organized manner within the time frame specified works to meet objectives, and sees a task through to completion	4.82	Very Satisfied
3. Independent (produces outputs on time while working with little supervision)	4.80	Very Satisfied
4. Identifies areas needing change and recommends improvements	4.78	Very Satisfied
5. Achieves established goals	4.76	Very Satisfied
6. Goes out of their way to learn and work on new skill sets	4.72	Very Satisfied
7. Always present and/or on time	4.7	Very Satisfied
8. Completes work in a timely manner	4.68	Very Satisfied
9. Strives to increase productivity	4.68	Very Satisfied

10. Accepts and adapts to change easily	4.64	Very Satisfied
Total Mean	**4.75**	Very Satisfied

Job Knowledge

The Employer's Satisfaction with the Job knowledge of the graduates is shown in Table 5. Interestingly, the employers rated the item "can perform their work with minimal supervision" with a mean rating of 4.84. It also revealed that graduates "possess the necessary technical knowledge for the job" with a mean of 4.8. Technical skills and knowledge are listed among intermediate assets in the framework of employability in the ICT industry. It means that the graduates use specific technical skills related to the tasks assigned to them. They create innovative strategies and/or products that meet identified needs. These are good indicators of excellent employees (Tudy, Randy & Jesu, 2017). Graduates' ability to learn and apply new skills got the lowest mean rating of 4.56. There are new software and hardware components in ICT that require training. Since learning new abilities, especially programming languages and hardware integration takes a lot of time, it is difficult for graduates to upgrade their technical skills. And this might be attributed graduates to learning new skills. However, the employers are very satisfied with the Job knowledge of the graduates with a total mean of 4.71.

Table 5. Employers Satisfaction with the Job Knowledge of the Graduates

Job Knowledge	Mean	Description
1. Competent in required skills and knowledge	4.84	Very Satisfied
2. Possess the necessary technical knowledge for the job.	4.8	Very Satisfied
3. Completes assigned work efficiently	4.77	Very Satisfied
4. Sets measurable goals and works hard to achieve them.	4.76	Very Satisfied
5. Demonstrates a desire to learn new skills, methods, and techniques	4.75	Very Satisfied
6. Can perform his/her work with minimal supervision	4.72	Very Satisfied
7. Can think creatively, and objectively and offer insight into solving problems.	4.68	Very Satisfied
8. Demonstrate comprehension of processes and skills to perform the job	4.64	Very Satisfied
9. Providing sound decisions making in response to the needs of the organization	4.6	Very Satisfied
10. Exhibit the ability to learn and apply new skills	4.56	Very Satisfied
Total Mean	**4.71**	Very Satisfied

Working Relationship

Table 6 shows the employer's satisfaction with the working relationship of the graduates. It could be gleaned from the table that graduates can convey information to his/her supervisor, peers, and clients in a timely, clear, and concise manner with a mean rating of 4.84. Also, graduates can interact in ways that bring out the best in others and can model a strong sense of team spirit and morale with a mean rating of 4.82 respectively. The item "demonstrate good oral communication skills" got the least rating of 4.64. The ICT graduates usually give more emphasis on technical skills like coding or programming, troubleshooting, and networking in particular. This might the reason why they don't focus too much on honing their communication skills. The overall rating of the employer's satisfaction with the working relationship of graduates is 4.75. This means that employers were very satisfied with the working relationship of the graduates. The working relationship is important because it provides stability in the workplace. Indeed Career Guide (2021) stated that understanding the importance of building relationships in the workplace can help advance their careers and make work more enjoyable. Also, having relationships with peers can have a direct impact on professional success. Knowing how to build relationships is a valuable skill.

Table 6. Employers Satisfaction with the Working relationship of the Graduates

Working Relationships	Mean	Description
1. Conveys information to his/her supervisor, peers, and clients in a timely, clear, and concise manner	4.84	Very Satisfied
2. Interacts in ways that bring out the best in others	4.82	Very Satisfied
3. Models a strong sense of team spirit and morale	4.82	Very Satisfied
4. Pleasant attitude	4.8	Very Satisfied
5. Listens to others and is open to and evaluates their suggestions.	4.77	Very Satisfied
6. Can work well with others	4.75	Very Satisfied
7. Exhibits good listening and comprehension skills	4.72	Very Satisfied
8. Take the initiative to assist others	4.68	Very Satisfied
9. Demonstrate good written communication	4.68	Very Satisfied
10. Demonstrate good oral communication skills	4.64	Very Satisfied
Total Mean	**4.75**	Very Satisfied

Employers Suggestion

The employer's suggestions to improve the quality of graduates are shown in Table 7. The fifteen (15) employers suggested that graduates need to improve their interpersonal communication skills. It is interesting to note that this suggestion is somewhat connected or related to the findings in Table 6 that the last item that got the lowest mean rating is good oral communication skills.

Graduates should develop their skills in graphics and design, ranked number two. The third suggestion of the employers is that graduates should teach them of becoming an entrepreneur using Information Technology. Lastly, graduates should undergo training or seminar to enhance their troubleshooting and networking skills.

Table 7. Employers Suggestions to Improve the Quality of Graduates

Suggestions	Frequency	%	Rank
1. Needs improvement in interpersonal communication skills	15	15.30%	1
2. Should develop their skills in graphics and design.	9	9.18%	2
3. Need to teach them of becoming an entrepreneur using Information Technology	5	5.10%	3
4. Need to undergo training or seminar to enhance their troubleshooting and networking skills	2	2.04%	4

Summary and Conclusion

Employers who participated in the study as respondents had firsthand knowledge of the performance of these CCSICT graduates. The findings show that a higher percentage of employers who responded to the survey are from the Information and Communications Technology industry. This means that graduates have jobs that are related to their course who are employed have jobs that are related to their course, which is. Based on the data provided by employers, the majority of graduates already have permanent positions in private companies. This indicates that CCSICT graduates have high employability in private companies.

Employers were very satisfied with the graduate's quality and quantity of work, job knowledge, and work relationship. The top attributes used to evaluate the graduates' performance were the quantity of work and the working relationships.

The work quality of CCSICT graduates meets the expectations of the employees. Among the ten items, graduates act appropriately even in the most difficult situations; show creativity and initiative when tackling complicated work or problems, and look for ways to improve are among those that got the highest mean rating. This means that graduates define how accurate and competent they are.

 In terms of work quantity, employers gave the highest rating on the item "graduates can be counted or even if extra time is required" and "complete assigned work efficiently and in an organized manner within the time frame specified". On the other hand, the item "accepts and adapts to change easily" got the lowest rating from employers. Generally, employers are very satisfied with graduates' quantity of work which shows that the graduates are productive, independent, and meet the company's deadline.

The Employer's Satisfaction with the Job knowledge of the graduates gave the highest rating on the item "can perform their work with minimal supervision" and "possess the necessary technical knowledge for the job". This means that the graduates possess the required technical skills by their employers. The item "demonstrate good

oral communication skills" got the lowest rating. However, employers in general are very satisfied with the Job knowledge of the graduates.

In graduates' working relationships, item "the graduates can convey information to his/her supervisor, peers, and clients in a timely, clear, and concise manner" got the top rating while item "demonstrate good oral communication skills" got the least rating. Overall, employers are very satisfied in terms of the working relationships of graduates.

Employers suggested that the graduates need to undergo training or seminar to enhance their troubleshooting and networking skills; should develop their skills in graphics and design; Need to improve their interpersonal communication skills and need to learn to be an entrepreneur using Information Technology. The findings suggested putting emphasis on written and oral communication skills and attending training to improve networking, troubleshooting skills, and graphics and design skills.

Ethical Considerations

Prior to the conduct of the study and gathering of the data, this went through approval of the Isabela State University management.

Upon the approval of the study, a consent letter for the participants was prepared. Hence, their participation was voluntary and that they were free to withdraw from it at any point and for any reason. They were also informed regarding the objectives and purpose of the study, while they were reassured that their answers would be treated with utmost confidentiality and be used only for academic purposes.

The participant's name was optional on the forms and no one else except the researcher had access to the survey answers. If the participants felt uncomfortable talking about some of the topics, they didn't have to answer the question or take part in the questionnaire. They were not coerced for not responding to the question or for refusing to take part in the interview or questionnaire.

Also, they were not harmed or abused, both physically and psychologically, all throughout the conduct of the research.

Acknowledgement

Authors Bio note

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References
Journal Article

[1] Mehrotra, A. & Elias, H. (2017). Employers Feedback on Business Graduates. US-China Education Review. David Publishing, Vol.7, No.4, 190-199.

[2] Dotong,C.,I., Chavez, N, H., Pamplona,Nestor, MA, I., Camello, C. (2017). Employers' Feedback on Job Performance of Engineering Graduates in one Private Academic Institution in the Philippines. Asia Pacific Journal of Education, Arts and Sciences. Vol. 4 No.1, 34-40

[3] Sannadan, J. G. M., Lang-ay, P. L. D., & Guidangen, J.S. (2016). Feedback of Employers on The Performance of Ba-History Graduates of Kasc. International Journal of Advanced Research in Management and Social Sciences, 5(1), 220-231)

[4] Albina, A.C. & Sumagaysay, L.P. (2020). Employability Tracer Study of Information Technology Education Graduates from a State University in the Philippines. Social Sciences and Humanities Open. Volume 2, Issue 1, 2020, 100055.Published by Elsevier. Https://doi.org/10.1016/j.ssaho.2020.100055

[5] Buraga, R.L. (2021). Tracer Study of BS Information Technology of Isabela State University Cabagan, Campus. Turkish Online Journal of Qualitative Inquiry (TOJQI). Volume 12, Issue 7, 12099-12108.

[6] Shukla, A. & Kumar, G. (2017). Essential Soft Skills for Employability – A Longitudinal Study, Advances in Economics and Business Management (AEBM) p-ISSN: 2394-1545; e-ISSN: 2394-1553; Volume 4, Issue 6; April-June, 2017, pp. 362-367.

Web Page

[1] Gerber, S. (2022). BPlans.Easy Ways to Evaluate an Employee's Performance. Retrieved from articles.bplans.com/how-to-effectively-evaluate-an-employee-performance.

[2] Succi, C. & Canovi, M. (2019). Soft Skills to Enhance Graduate Employability: Comparing Students and Employers' Perceptions. https://doi.org/10.1080/03075079.2019.1585420

[3] Herrity, J. (2019). Indeed. Career Guide. 10 Ways to Show Creativity in the Workplace. Retrieved from https://www.indeed.com/career-advice/career-development/creativity-in-the-workplace

[4] *Juneja*, P. (n.d.). Management Study Guide. Workplace Efficiency - Being Efficient at Workplace. Retrieved from https://www.managementstudyguide.com/workplace-efficiency.htm

[5] Tudy, Randy & Jesu, C. (2017). Employers' satisfaction on the performance of new college graduates. Volume 3.

[6] Indeed Career Guide.(2021). 8 Reasons Why It's Important to Build Workplace Relationships. Retrieved from https://www.indeed.com/career-advice/career-development/importance-of-building-relationships

[7] Mackey, J. D., Ellen III, B. P., Hochwarter, W. A., & Ferris, G. R. (2013). Subordinate social adaptability and the consequences of abusive supervision perceptions in two samples. The Leadership Quarterly, 24(5), 732-746. Retrieved August 17, 2014 from http://www.sciencedirect.com/science/article/pii/S1048984313000714

News Article

[1] Ansari, M.A. 2014. BAYT. What are major criteria to assess the performance of employees? Retrieved from specialties.bayt.com

[2] Ahmed, A.2020. CHRON. Criteria for an Employee Evaluation. Retrieved from smallbusiness.chron.com

[3] Carnevale, A. P., Gainer, L. J., & Meltzer, A. S. (1990). Workplace basics: The essentials skills employers want. San Francisco: Jossey-Bass.