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# The Significance of Nutritional Comprehensive Training Course and improvements in Curricula and the Graduates of the Nutrition Department, Faculty of Public Health, University of Benghazi

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**A R T I C L E I N F O**

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**Abstract**

One of the fundamental qualities that graduates must possess is knowledge and complete confidence in performing their duties in proportion to the labor market, as these competencies will not come without a realistic study of the educational outcomes of the institution. A comprehensive training course on a physical nutritional examination approved by the Academy of Nutrition and Dietitian was designed for the graduates of the Nutrition Department of the College of Public Health, University of Benghazi. This study aimed to study the significant differences in skills improvement. 200 graduates enrolled in this training course. A validated questionnaire was distributed by the Academy of Nutrition and Dietitian before and after the course. The consequences and opportunities for improvement in skills were studied, as well as identifying the strengths and weaknesses of the curriculum. The data were analyzed using non-parametric measurements by SPSS version 20©. Result: Significant improvements were seen in the graduate's evaluation of their overall performance. When comparing opinion polls before and after testing, participants noted an increase in their perceived ability to assess subcutaneous fat and muscle, fluid build-up, and malnutrition P = ≤ 0.00. Furthermore, there is a significant increase in graduate's conformance 45% (n= 90) in touching patients. Equal to 50% (n=100) of graduates have increased their focus on the importance of adding fundamentals of medicine to the educational curriculum of the Nutrition Department. Among the graduates, 82% (n=91) and 18% (n=36) felt that they needed moretraining in communication skills and that the experience would increase, respectively. The training program was effective in improving skills, mastery, and confidence in the performance of most of the graduates. Intensive feedback was collected from graduates to improve and develop educational curricula.

**Introduction**:

Researchers are currently focusing on studying and improving higher education to find out whether graduates possess the competencies needed to prepare them for the labor market. One of the indicators prompted by local and international education quality standards is the follow-up of graduates to search for their competencies Pérez, Soto and Orduño, (2012). This approach is part of the methodology followed by the Department of Nutrition, Faculty of Public Health, which seeks to support and enhance the efficiency of their graduates. The Future of Education and Skills Education 203 Distance-Educator, defines competence as: "a competency is more than knowledge and skills. It involves the ability to meet complex demands, using and mobilizing psychosocial resources including; skills and attitudes in a particular context". According to Bowden, Hart, King, Trigwell & Watts, (2000); and Smith, 2017; the higher education graduates should possess highly professional competencies and skills that include

knowledge, understanding, and confidence. According to Nour Ayni Yusef and others 2013; which conducted a study on the opinions of employers about the professional competencies of graduates coming to the labor market, the results showed that a high percentage of graduates lack interpersonal skills, followed by the loss of the ability to think deeply, plan a career and some of them also lack the scientific side.

One of the means to raise competencies for graduates is the curriculum development process, which is defined as a targeted, gradual and systematic process to bring about positive improvements in the educational system and the graduates 'competencies to meet the labor market and meet the needs of society Cumming, J. (2010). As is well known, the curriculum is the main focus of any learning process. To improve the quality of higher education, which is in the interest of improving educational outcomes, it is not sufficient to enhance the curricula with knowledge additions without having realistic strategic plans concerned with updating teaching methods and evaluation, studying the conditions of the labor market and tracking the performance of graduates IBE-UNESCO and APCEIU, (2018). The educational curriculum is based on scientific knowledge, advanced knowledge, skills, and attitudes separately. Meaningful learning requires linking these axes together, and students must also be part of a solution full of problem situations as a step to prepare it for the job market Bagshaw (1996).

In the context of strategies for changing teaching and evaluation methods that would raise the level of educational attainment, which lies in choosing the best evaluation and teaching methods, it is in fact one of the plans developed by the Nutrition Department at the University of Benghazi, which led to improving the level of educational attainment as indicated by the study conducted by Elfagi et al, (2020). Besides, the study was conducted by Nouh F, Elfagi S, and Omar M, (2020); that discussed the effect of using a blended learning approach in enhancing students' achievement and outcome. Through these studies, researchers have noted weaknesses in educational outcomes, especially on the clinical side. Effective vocational training is one of the methodologies used in higher education institutions in many countries of the world Nash, (2005); Aldubayan, Aljuraiban, and Aldisi, (2019); and UNESCO, (2000). Among the recommendations emphasized by many studies and organizations such as UNESCO, (2016), and APCEIU, (2018) they emphasized that educational institutions should know the strengths and weaknesses of the educational curricula and the obstacles that graduates face in performing their labor field.

Based on these recommendations, the nutritional physical examination comprehensive training course that was prepared and used in this study was selected. The nutritional physical examination is a clinical training course consisting of nutritional assessment, diagnosis, intervention, monitoring, and evaluation. As an essential part of a nutrition assessment, a physical examination focusing on nutrition is very important in identifying signs and symptoms related to nutrition to screen for malnutrition. The prevalence of malnutrition is high, but the prognosis of malnutrition is low Applications, (2014). The nutritional focused physical examination considers muscle and fat wasting, fluid accumulation, and functional status. These four factors, in addition to weight loss and adequacy of dietary intake, are used to identify malnutrition. As a physical exam is required to assess four of the six recommended diagnostic criteria for malnutrition, it is standard of practice in nutrition care to perform NFPE in a nutrition assessment Nicolescu and Paun, (2009).

The importance of this research lies in the study the effectiveness of comprehensive training courses and their ability to enhance the practical skills of the graduate before and after training, and the expected secondary result is the change in the ability of graduates and an increase in confidence in their job performance. The researchers expected to see improvement in several skills that will be provided by the training program, as well as a decrease in the obstacles that prevent their ability to apply clinical nutritional diagnosis. The authors also aimed to identify the strengths and weaknesses points to improve the Nutrition Department study plan and educational curricula.

**The research question:** Is it possible to measure the level of satisfaction, confidence, and performance of the graduates through intensive training courses.

Objective: To determine whether there are statistically significant differences between pre and post observations differs significantly from zero. Furthermore, this paper aims to assess the influences of Nutritional Physical Examination Comprehensive Training Course and improvements in curricula and the graduates of the

Nutrition Department, Faculty of Public Health, and University of Benghazi.

**Methodology:**

It is a quasi-experimental study. Informed consent was obtained from subjects who were also assured of the confidentiality of the information collected. It extends from September 2019 up to March 2020. The training course extends for one week from 26th October 2020 up to 2nd November 2019; four hours per day. The period of pre-test data collection extended from mid of September 2019 up to half of October 2019. The pre- and post-training questionnaires were programmed to be filled using standard web browsers. The questionnaire was distributed into two phases, the first before the start of the training course and the second phase after the end of the course directly, which lasted for eight days at a rate of four hours per day .

The actual attendance of the course was 200 graduates with a response rate (54%) out of 370 graduates of the Nutrition Department of the Faculty of Public Health who filled out the pre-session questionnaire. Whereas one of the reasons for the reluctance of the 170 is that the training course was in the morning shift, and this matter contradicted their work time, and the other reason was that the graduates residing outside Benghazi apologized for their inability to join the training program. The responses were transported into an output file and imported into SPSS© (Statistical Package for the Social Sciences). This study was conducted to measure the importance of training courses in graduate performance. The authors used a validated structured questionnaire tool approved by the Academy of Nutrition and Dietitian. Inclusion criteria include having a baccalaureate degree in Nutrition; participate in the announced training program. To announce this study, the authors sent a brief description to all the graduates throughout the online training groups .

The study questionnaire was conducted under the standards of the nutritional physical examination approved training plan, which links aspects of knowledge and understanding between dietetics and clinical diagnosis. Outcome measurement tools are the nutritional physical examination checklist. The assessment methods applied in this study are skills checklist, Likert scale, multiple-choice, and post-test open questions. The pre- and post-training collected data include the nutritional physical examination skills knowledge. The post-training collected data include a change in skills performance, change in graduate's confidence regarding the nutritional physical examination performance. This course was offered by a Medical Specialist in the Intensive Care Unit. After about a week, the graduates were tested and filled out the subsequent questionnaire (post-test) to assess the acquired skills and information, which included the same questions from the previous questionnaire with the addition of open questions to allow the graduate .The normality of sample distributions was tested according to the Shapiro-Wilk scale. The significant correlation for all variables was set at $P \leq 0.05$, and this means the data not normally distributed. The non-parametric ANOVA (Friedman test) was done to paired data frequency at a statistically significant level: $P \leq 0.05$, analysis of skill performance was done by Wilcoxon Signed Ranks.

**Result and Discussion:**

The dominated aim of this research is to study the effectiveness of comprehensive training courses and their ability to improve the graduate's practical skills. From Table 1 two hundred graduates were enrolled in this training program the majority of participants in the sample are female (90%) of the total sample and the rest (10%) male. In the region of the educational level, the highest percentage was for the Bachelor's degree by 86% of the total sample, followed by 11% (n=22), 3% (n=6) for was a master's and diploma degree, respectively. Most of the participants in this study were working in hospitals as dietitians (48.5%) and 30.5% unemployed while the rest working in public clinics, private clinics, and academics 11.5%, 5%, and 4.5% respectively.

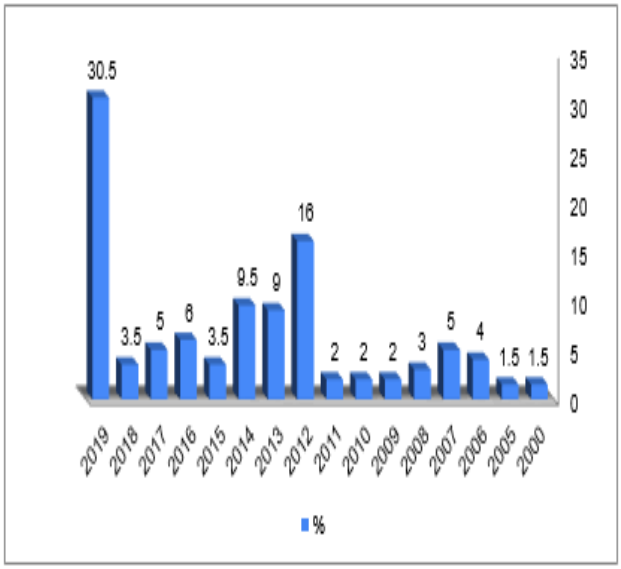
**Table 1: Demographic Data**

| Demographic variables | | # of participants | Percentage (%) |
|---|---|---|---|
| Gender | Male | 20 | 10 |
| | Female | 180 | 90 |
| Degree(s) earned | Bachelor's Degree | 172 | 86 |
| | Diploma | 6 | 3 |
| | Master Degree | 22 | 11 |
| Professional statues | Hospital | 97 | 48.5 |
| | Polyclinic | 23 | 11.5 |
| | Private clinic | 10 | 5.0 |
| | Not working | 61 | 30.5 |
| | Academic | 9 | 4.5 |

Most of the registered graduates from different graduation years (2000 up to 2019), with the

largest percentage being 32% for 2019 graduates, followed by 16% and 9.5% 9% for 2012, 2014, and 2013 graduates respectively as shown in Figure 1.

**Figure 1: Sample Distribution by Year of Graduation**




**(n-200**

The barriers that facing graduates during applying nutritional physical examination during their work in hospitals and clinics are presented in Table (2).The barriers included Lack of training/education, which constituted the largest percentage about (39%), followed by 28% and 17.5 %, lack of hands-on experience and discomfort touching patients, respectively. only 15.5 % of participants select other barriers where the researchers will discuss this in the open questions.

**Table 2: Barriers facing graduates during applying nutritional physical examination**

| Variables | # of participants | Percentage (%) |
|---|---|---|
| Lack of training/education | 78 | 39 |
| Lack of hands-on experience | 56 | 28 |
| Discomfort touching patients | 35 | 17.5 |
| Other | 31 | 15.5 |

Among the basic questions asked to the graduates were the extent of their knowledge of the importance of this training course, their belief about the importance of adding the fundamentals of medicine course to the undergraduate curriculum, and their confidence and satisfaction with their performance as shown in Table (3). These questions were asked before and after the start of the course in the same context. The researchers noticed that there were positive statistically significant differences between the tribal mean and the dimensional mean of the two questions (it is important to insert medicine course to an undergraduate degree and their confidence during deal patients) (P= 0.000, P = 0.001) respectively. There were no statistically significant differences in the question of the necessity to conduct an effective nutritional clinical examination with the medical team (P= .898).

**Table 3: The Paired Data Frequency Distributions**

| Questions | Measures tool | Response Grade | | | | | Mean | P |
|---|---|---|---|---|---|---|---|---|
| | | Not important | Slightly important | I don't know | Important | Very Important | | |
| Is it necessary to conduct an effective nutritional clinical examination with the medical team? | Pre-test | 6 (3%) | 20 (10%) | 91 (45.5%) | 47 (23.5%) | 35 (17.5%) | 3.43 | .898 |
| | Post-test | 9 (4.5%) | 17 (8.5%) | 90 (%45) | 46 (23%) | 38 (19%) | 3.43 | |
| Do you think it is important to insert a medicine course into an undergraduate degree? | Pre-test | 13 (6.5%) | 38 (19%) | 39 (19.5%) | 61 (30.5%) | 49 (24.5%) | 3.47 | .000 |
| | Post-test | 2 (1.0%) | 13 (6.5%) | 6 (3 %) | 79 (39.5%) | 100 (50%) | 4.35 | |
| | | Response Grade | | | | | | |
| How comfortable do you feeling when deal with patients/clients to perform a nutritional clinical examination? | | V.uncomfortable | Uncomfortable | I don't know | Comfortable | V.Comfortable | | |
| | Pre-test | 6 (3%) | 14 (7%) | 26 (13%) | 129 (64.5%) | 53 (26.5%) | 3.86 | .001 |
| | Post-test | 0 | 2 (1%) | 16 (8%) | 46 (23%) | 90 (45%) | 4.16 | |

*significant (p<0.05)

The pre and post-test responses in the study are abridged in Table 4. After comparing the pre and post-test by Wilcoxon signed ranks test to analyze the skills

| Outcomes | Z-Statistics | P-values |
|---|---|---|
| Rate your ability to assess an individual's subcutaneous fat stores clinically? | -7.651 | .000* |
| Rate your ability to assess an individual's muscle stores clinically? | -7.395 | .000* |
| Rate your ability to assess an individual for fluid accumulation clinically? | -7.316 | .000* |
| Rate your ability to assess an individual's degree of malnutrition status? | -5.433 | .000* |
| Rate your ability to assess the physical signs of micronutrient deficiencies or excesses? | -.601 | .548 |

improvement "paired survey data, the researchers establish there were statistically significant differences (P =.000), as the graduates sense the importance of the clinical nutritional examination increased significantly. Their perceived ability to assess subcutaneous fat, and muscle, fluid accumulation, and immune deficiency increased. There was no significant difference in their ability to assess the physical signs of micronutrient deficiencies or excesses (P = .548).

**Table 4: to Analysis skills improvement "Wilcoxon Signed Ranks Test" paired survey data**

*significant (p<0.05)

The different needs of the graduate to the training course are presented in Table (5). There was a

significant decrease in graduates who felt they needed additional training in assessing muscle/fat wasting, as well as more hands-on experience. The graduate's comfort touching patient's skills was significantly increased.

**Table 5: Clarifies the Different Needs of the Graduate Pre and Post the Training Course**

| | pre | post | Pre- Mean | Post-Mean | P-value |
|---|---|---|---|---|---|
| Malnutrition diagnosis/criteria terminology | 63 (31.5 %) | 34 (17%) | 2.63 | 3.40 | .000 |
| Assessing muscle and/or fat wasting | 32 (16 %) | 16 (25%) | | | |
| Assessing micronutrient deficiencies | 32 (16 %) | 23 (36%) | | | |
| Communication skills with patient | 61 (30.5% ) | 91 (82%) | | | |
| Additional hands-on-experience | 12 ( 6%) | 36 (18%) | | | |

*significant (p<0.05)

To our best knowledge, this is the first Libyan study on graduate's training and job performance. This study presents an effective approach regarding the training of 200 subjects of Nutrition Department graduates.

All barriers mentioned previously in Table 2 related to nutritional focused physical examination skills were consistent with many studies that examined the barriers that dietitians face in their fieldwork (Charney and Peterson, 2013). The main difficulty in this study (39%) was registered for the lack of interest in the aspect of training and continuing education. Altogether participants expressed their belief in the importance of changing training strategies in the scientific section, as this result was similar to a study conducted in the Kingdom of Saudi Arabia in which a therapeutic dietitian agreed to their need to train and keep going educated after graduation (Aldubayan, Aljuraiban, and Aldisi, 2019). As well as according to the National Health Service (Department of Health UK, 2013) and the National Institute of Health and Clinical Excellence (Storeyj, 2007) have recommended generally to increase the training program for health professionals in communication skills and urging them to continue education. There is evidence to suggest that communication skills are essential in helping people to alteration health-related behavior, which is a vital role for dietitians.

There are positive differences (P = 0.01) in the opinion of the participants before and after the training course about the importance of applying a physical examination focused on nutrition in the presence of a multidisciplinary team, and this is exactly what we found in many studies that focused on the training aspect after graduation. In fact, following up on graduates and studying the labor market is one of the most important updating of educational outcomes, according to what was mentioned by (Ingram and Oosterkamp, 2014) and; (Nicolescu and Paun, 2009). Specifically, as stated in our study, rescuers also polled the opinion about the importance of adding some courses (principle of medicine and intensive care unit) to the undergraduate student's curriculum before starting the intensive course and after completing it, and we noticed a positive difference (P=.000) in their viewpoint after increasing their knowledge achievement.

Indeed, evaluating the effectiveness of such courses has proven challenging and has not been well researched (Thompson and Gutschall, 2015). As research conducted, it is difficult to measure the accuracy of benefiting from training even if the cognitive results are achieved, and this is due to the lack of the actual practical side of the course. To date, most of the course objectives have focused on examining their satisfaction with their performance, their perception of the course's effectiveness, and the extent to which they have increased academic achievement.

In general, the skills performance achieved and enhanced by graduates in this course were the ability to assess an individual's subcutaneous fat, store muscle, fluid accumulation, and degree of malnutrition clinically. Similarly to our study, in a research conducted in the United States by (Pirantika, A. Purwanti, 2017) they found the same result except in the ability to assess the physical signs of micronutrient deficiencies or excesses 81% (n=13), there were no significant differences pre and post testes at P-value > 0.005. Approximately 140 participants did not notice a difference or improvement in their skills specifically the inability to assess micronutrient deficiencies or excesses, as indicated by (Esper, 2017) this likely is because skill requires direct interaction with the patient and is difficult to acquire professionally remotely.

Furthermore, desired about 82% (n = 91) of participants undergo further training in patient communication skills, and additional hands on-experience 18% (n=36) and this is what previous researchers have found 44% (n=7) would like more training in patient communication skills and 375 (n=7) need additional hands-on-experience (Aldubayan, Aljuraiban, and Aldisi, 2019) all participants generally agreed that the skills which the graduates lacked were oral and written communication skills. Previous recommendations and reports in the dietetics field have emphasized communication and counseling as important skills for improving patient care (Pignone

MP etc 2013). Their needs for more training on malnutrition diagnosis/criteria terminology, assessing muscle and/or fat wasting, and assessing micronutrient deficiencies were decreased as shown in Table (5).

Additionally, our study results are consistent with many studies that examined the needs of the trainees, where after analyzing the open-ended questions on the post-survey that was written by the participants such as; (nutritional diagnostics related to children, how to prepare intravenous solutions, need to understand biomarkers and laboratory tests more accurately, need for actual training in the tools of physical examination and anthropometry and other courses that flow into the clinical side) researchers found that it is possible to adjust some topics and add others to support the curriculum of the Nutrition Department and increase the educational attainment of bachelor's students.

**Conclusion:**

The nutritional physical evaluation of the nutritional status is an essential component of the clinical nutrition practice of dietitians, especially within hospitals. According to the aim of this study, the performance of graduates was enhanced in a lot of parameters, especially in malnutrition assessment, there are statistically significant differences between pre and post observations differs significantly from zero. Some of the areas like skill communications, dealing with patients, and hand experiences showed no differences significantly, and the graduate's asked for more training. However, the nutrition department's educational strategies that focus on clinical nutrition are not sufficient to meet the needs of a dietician. There is a need for specific competency training programs for all department graduates. At the same time, we need to update and change the scientific curricula for bachelor's students to avoid these challenges of integrating a nutrition-focused physical assessment into nutritional care in the future. Nevertheless, more researches are needed to determine whether effective graduate training programs can be designed. Moreover, if it is possible to design it, the strategies for its inclusion in the Bachelor's curriculum for the Nutrition Department should be considered.

The findings of the current study could serve as a predictor of the curriculum and graduates level. It can be considered as a source of information for academics, researchers, administrators, and decision-makers involved in planning, implementation, monitoring, and promotion of curriculum in Libya. The current study has some limitations. The authors realize that the current research only involved students from one higher education institution is a limitation of the current study. Accordingly, the researcher will not generalise the results of the study but would rather contextualise the study. It will be more valid if more graduates, stakeholders and administrators could involve in the study. There is limited Libyan literature that address curriculum and graduates level in the higher education, the researchers referred to international literature for some arguments in the study and this is another limitation of the current study. Moreover, the fundamental weakness of the quasi-experimental design is the fact that test groupsare not equivalent and therefore limits the generalizability of the study results.This reducesinternal validity and the conclusions related to causality are not as absolute.Also, there is noaccounting by the researcher for any other factors which may impact the testing results.

**References:**

1. Academy of Nutrition and Dietetics. Nutrition Focused Physical Exam Hands-on Training Workshop. 2016. Internet: http://www.eatrightpro.org/resource/career/professional- development/face-to-face-learning/nfpe-workshop (accessed September 24 2016).

2. Aldubayan, K., Aljuraiban, G. and Aldisi, D. (2019) 'Necessary knowledge and skills for dietitians in Saudi Arabia: A qualitative study', Malaysian Journal of Medical Sciences, 26(3), pp. 110–118. doi: 10.21315/mjms2019.26.3.9.

3. Applications, P. (2014) 'Nutrition Care Process and Model: An Academic and Practice Odyssey'. doi: 10.1016/j.jand.2014.07.032.

4. Bagshaw, N. (1996). Creating employability: how can training and development square the circle between individual and corporate interest?, Industrial and Commercial Training, 28(1), 16-18.

5. Bowden, J., Hart, G., King, B., Trigwell, K., & Watts, O. (2000). Generic capabilities of ATN university graduates. Canberra: Australian Government Department of Education, Training and Youth Affairs. http://www.clt.uts.edu.au/atn.grad.cap.project.index.html.

6. Charney, P. and Peterson, S. J. (2013) 'Practice paper of the academy of nutrition and dietetics abstract: Critical thinking skills in nutrition assessment and diagnosis', Journal of the Academy of Nutrition and Dietetics. Academy of Nutrition and Dietetics, 113(11), p. 1545. doi: 10.1016/j.jand.2013.09.006.

7. Cumming, J. (2010). Contextualised performance: reframing the skills debate in research education.

Studies in Higher Education, 35(4), 405-19. doi: http://dx.doi.org/10.1080/03075070903082342

8. Department of Health UK (2013) 'Guide to the Healthcare System in England', National Health Service, (May), pp. 1–36.

9. Elfagi, S., Elamni, S.F., Nouh, F., Eltohami, A. and Omar, M., Undergraduate Student

Feedback on OSCE: The First Experience of a Nutrition Department, University of

Benghazi 2019. Journal of Advances in Education and Philosophy; 4(5): b\s 104-1110.

10. Esper, D. H. (2017) 'Utilization of Nutrition-Focused Physical Assessment in Identifying Micronutrient Deficiencies Utilization of Nutrition-Focused Physical Assessment in Identifying Micronutrient Deficiencies', (April 2015). doi: 10.1177/0884533615573054.

11. Ingram, V. and Oosterkamp, E. (2014) 'Literature review on the labour market impacts of value chain development interventions', LEI Wageningen UR, (August).

12. Nash, S., 2005. Learning objects, learning object repositories, and learning theory: Preliminary best practices for online courses. Interdisciplinary Journal of E-Learning and Learning Objects, 1(1), pp.217-228.

13. Nouh, F., Elfagi, S. and Omar, M., Influence of Integrated Teaching Strategies on Quality

of Student Outcomes in A Clinical Nutrition Course in Undergraduate Level at Nutrition

Department Faculty of Public Health; University of Benghazi.2020. Journal of Advances

in Education and Philosophy; 4(4): b\s 167-170.

14. Nicolescu, L. and Paun, C. (2009) 'Relating higher education with the labour market: Graduates' expectations and employers' requirements', Tertiary Education and Management, 15(1), pp. 17–33. doi: 10.1080/13583880802700024.

15. Nor Aini Yusof et al. (2013) 'Improving Graduates' Employability Skills through Industrial Training : Suggestions from Employers', Journal of Education and Practice, 4(4), pp. 23–29.

16. Pérez, M. R., Soto, Y. M. and Orduño, T. C. (2012) 'Improvement Of Competences Of University Students, Experience Improvement Of Competences Of University Students, Experience A Program Of Comprehensive Training Support.Proceedings of ICERI2012 Conference 19th-21st November 2012, Madrid, Spain

17. Pirantika, A. Purwanti, R. S. (2017) 'Electronic blackmail ... Crimes feeding on the prosperity of communication, Universitas Nusantara PGRI Kediri, 01, pp. 1–7. Available at: http://www.albayan.ae.

18. Pignone MP, Ammerman A, Fernandez L, Orleans CT, Pender N, Woolf S, Lohr KN, Sutton S. Counseling to promote a healthy diet in adults: a summary of the evidence for the U.S. Preventive Services Task Force. Am J Prev Med. 2003 Jan;24(1):75-92. doi: 10.1016/s0749-3797(02)00580-9. PMID: 12554027.

19. Smith, S. (2017) 'Embedding Graduate Attributes into the Undergraduate Curriculum : Reflection and Actions Embedding Graduate Attributes into the Undergraduate Curriculum : Reflection and Actions', (May). doi: 10.14297/jpaap.v4i2.174.

20. Storeyj (2007) 'Microsoft Word - HC 27-I NICE FINAL report _17 Dec_.doc', (December 2007), pp. 1–117. Available at: papers2://publication/uuid/3C51B15F-B88A-4B14-B2B7-B3265B411A35.

21. 'The Future of Education and Skills Education 2030 | Distance-Educator.com' (no date). Available at: http://distance-educator.com/the-future-of-education-and-skills-education

22. Thompson, K. L. and Gutschall, M. D. (2015) 'The time is now: A blueprint for simulation indietetics education', Journal of the Academy of Nutrition and Dietetics. Academy of Nutrition and Dietetics, 115(2), pp. 183–194. doi: 10.1016/j.jand.2014.12.001.

23. UNESCO, 2016. Training tools for curriculum development: A resource pack supporting Inclusive education.

24. UNESCO. 2000. Building social integration through bilingual and mother-tongue education – Prepared for the World Forum on Education, Dakar, 26–28 April 2000. Paris, UNESCO. www.unesco.org/education/ efa/wef_2000/strategy_sessions/session_III-3.shtml (Accessed 13 September 2013.)