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Fulfilling ABET criteria under the Continuous Assessment strategy.

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Abstract

The aim of this paper is to objectively evaluate the engineering classes (Dynamics, Fluid Mechanics and Mechanics of Materials) on multiple levels with the continuous assessment (CA) strategy. Through an up-to-date collection of students' feedback throughout the semesters, this paper quantifies the extent to which ABET (Accreditation Board for Engineering and Technology) criteria were met. Furthermore, the feedback serves as an indispensable source to assess their learning experience within the realms of these courses. The CA strategy continues to achieve its primary intended outcome which adopting an examination method that shall both evaluate the student's level of understanding without jeopardizing his/her chances in passing the class. This method also enables an effective tracking the ABET criteria's incorporation within the class materials. Throughout the continuous homework evaluations, the students' feedback on these criteria enabled assessing the extent to which the class had fulfilled this goal. This shall bring attention to the criteria that received lower votes and ways to increase their partition in the course' curriculum. After adopting the continuous assessment strategy as an examination path for these courses, fulfilling ABET criteria remains a priority to attain. The continuous evaluations filled the gap between the students and the instructor where a better satisfaction was achieved during the semester concerning the level of difficulty of the exams, and the learning experience in general. Faced with multiple challenges, the class format needs to eventually transcend the traditional constraints and be updated in an innovative way to meet students' needs.

Keywords: Teaching, Learning, Assessment, ABET, Higher education

1. Introduction

The aim of this paper is to objectively evaluate the engineering classes (Dynamics, Fluid Mechanics and Mechanics of Materials) on multiple levels with the *continuous simple summative assessment* strategy. Through an up-to-date collection of students' feedback throughout the semesters, this paper quantifies the extent to which ABET criteria were met. The results presented in this study correspond to the Mechanics of Materials course (EGR 2312 – Spring 2018) which is quite representative of the engineering courses at AUI.

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2. Context

The organization of an engineering course content and, assessment play important roles in high quality learning (Entwistle and Peterson ⁽¹⁾). The students' learning process is considerably enhanced by choosing assessment methods that encourage reflection and critical thinking. Formative assessment, strategy to collect information to create feedback to students and improve learning, has proven to be a better way to assess than summative assessment (Lau, A. M. S. ⁽²⁾). As the aim was to lessen the rate of failure in typical engineering courses at Al Akhawayn University, *continuous simple summative assessment* rose to become a promising alternative to achieve that aim. Students are being assessed by short-duration examinations and the rapid feedback inherent in the scheme is of immense value in identifying weak students who can then be given additional help before it is too late (Bailey & al. ⁽³⁾). The results have been thus far fulfilling. A net decrease in terms of failure (Bentamy & Smith ⁽⁴⁾) has been recorded compared to the normal examination path that was used previously, where students are evaluated based on a midterm and final exams (*traditional summative assessment*). Fulfilling ABET (Accreditation Board for Engineering and Technology) criteria under the *continuous simple summative assessment* strategy goes in parallel with the promotion of quality and innovation in education. ABET is the recognized U.S.-based accreditor of college and university programs in applied and natural science, computing, engineering and engineering technology, both on the US national level and the international one. The accreditation criteria used for engineering courses at AUI has been employed to evaluate all American and international engineering programs since the beginning of 2001, embracing presumably their updates throughout the years (Felder & Brent ⁽⁵⁾, 2003). ABET's accreditation have been intended historically for programs that prepare graduates for entry into a profession appropriate to the program's discipline. One major component of this accreditation is meeting the Students' Outcomes (SO's) enlisted by the ABET engineering body. The SO's list goes as follows:

- (a) An ability to apply knowledge of mathematics, science, and engineering;
- (d) An ability to function on multi-disciplinary teams;
- (e) An ability to identify, formulate, and solve engineering problems;
- (f) An understanding of professional and ethical responsibility;
- (k) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

In a nutshell, student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program (ABET ⁽⁶⁾, 2017). Thus, achieving these outcomes are emphasized on the micro level of each engineering class at AUI to fulfill them eventually on the macro level upon students' graduation. One of the most critical aspects of the criteria under

consideration, is the fact that no clear methodology on how to quantify the success of course on the level of fulfilling these criteria. After several attempts on how to achieve the latter concern, it appeared that the most accurate pathway is to receive students' continuous feedback on how each of the assigned problems they work on meet or not meet the ABET criteria. Therefore, the *continuous simple summative assessment* strategy paved the way to an easy and precise collection of students' perception of these criteria gradually throughout the semesters at Al Akhawayn University. Al Akhawayn University (AUI) in Ifrane is a 22-year-old North American style liberal arts college in Morocco, with about 160 faculty members and 2200 students, offering bachelor and master level programs in business, science and technology, and humanities. The vast majority of our students (95%) come from a Moroccan high school system that is inspired by the French system, focusing on assessment through a few comprehensive exams. The characteristic difference of the North American system is reliance on regular formative assessment throughout each phase of the study program. Students making this transition must learn different study habits as well as approaches to prepare for and perform in this sort of formative assessment. The liberal arts pedagogy allow latitude for tailoring a degree program to a student's specific educational goals. The responsibility for developing a degree program (university core curriculum, major and concentration courses) within the requirements lies ultimately with the individual student working in consultation with his/her advisor. Students at AUI must select majors and areas of concentration within the major (if applicable) no later than the beginning of the semester in which they enroll for the 60th semester credit hour. Academic Advisors assist students in preparing a degree plan during the first semester and approving the course sequences.

3. Methodology

Through a Google form that served as an online survey that was shared with students upon finishing each chapter (Appendix 1), the ABET criteria evaluation was collected. After providing a brief overview of ABET criteria along with their list, a multiple choice grid was provided under the section "ABET Criteria", through which the student can check the criteria met for each exercise. As the columns presenting the criteria were constant throughout the chapters' evaluations, the rows number varied based on the number of exercises assigned for each chapter. The responses were all recorded in an Excel sheet linked to the form.

In parallel with the incorporation of the *continuous simple summative assessment* strategy, a more thorough preparation of the short examinations is a necessity. The aim of this new version of the class transcends the goal of decreasing the failure rates, to actually connecting with students and trying to accommodate their needs to enhance their learning experience. The most frowned upon

aspect of the class' old version (*traditional summative assessment*) is the immense gap between the students' and the instructor's judgments concerning the level of difficulty of the exams' exercises. Mainly blamed by the lack of communication between the two parties, students often find themselves dealing with challenging exams which are according to the professor acceptable. The fallacy here resides in the fact that the instructor's better judgment remains an expert opinion, but not necessarily an outcome of the reality of things. Therefore, continuous chapters' assessment was a solution to convey students' perception to the instructor, to be taken into consideration when assigning exercises of different difficulty levels in the exams. In order to break the disruption described above, students received after the completion of every chapter an online survey (Appendix 1) to give their feedback about the level of difficulty of each exercise assigned for the chapter covered in class. The range was from easy, intermediate to difficult, and the student had to choose for each exercise, one level of difficulty. The latter represents the columns which remained constant throughout the chapters, while the rows' number varied depending on the number of the exercises assigned to the studied chapter. The feedback was recorded in Excel sheet linked to the form. Before every examination, the instructor receives their evaluation, and assign the level of difficulty agreed upon by the student to a specific exercise to the chapter's section covered in that exercise. Thus, while designing the exam, the professor has an idea about how the chapter's sections should be distributed among the exams' easy, intermediate and difficult exercises. Note that the instructor can also use the evaluation of the level of difficulty of the assigned problems given by the editor of the textbook. In general, student's evaluations are similar to the editor's evaluations of the exercises.

4. Findings/Discussion

The following figure describes Mechanics of Materials students' evaluation of the assigned problems per every chapter based on the ABET criteria:

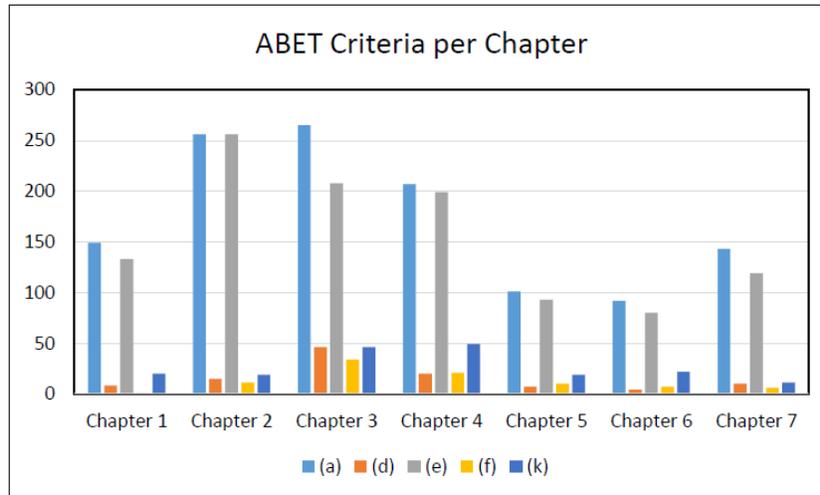


Figure 1: ABET Criteria Evaluation per Chapter

The evaluation above clearly proves how both criteria **(a)** and **(e)** were met extensively in all the chapters, reaching their maximum between chapter 2 and chapter 3. This demonstrate that students were able to apply throughout the class their knowledge in multiple disciplines such as mathematics and engineering, in order to identify and solve the presented problems. Criterion **(k)** ranks in third with a relatively medium count. This could be explained to the fact that both the terms “techniques” and “skills” are broad, which could make the decision concerning this criterion confusing. In addition, no chapter have required the use of any modern engineering tools. Finally, criteria **(f)** and **(d)** came last with a very low vote count. The reason behind might be related to the fact that problems were solved individually instead of teams, and that they were all on the theoretical level which doesn't enable the student to understand the professional/ethical responsibility behind the required solution.

The following figure describes the accumulated data of students' homework evaluation recorded throughout the semester:

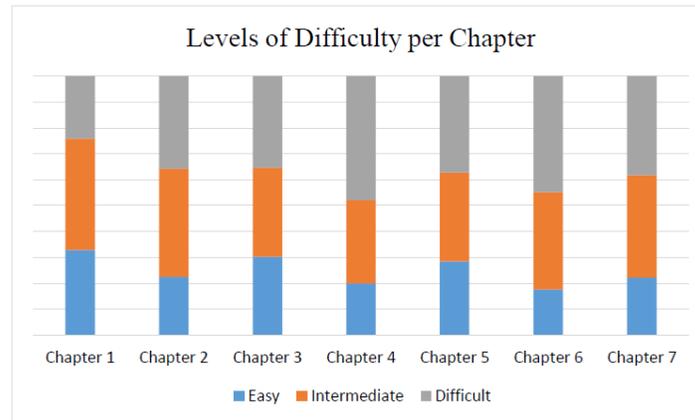


Figure 2: Levels of Difficulty per Chapter.

Based on these evaluations, the first three chapters and chapter 5 were of level intermediate for the students as they all cover introductory principle of the class along with previous knowledge covered in Statics class. Though chapter 4 covered a principle of the same category described previously, it was actually difficult for the students. The possible explanations that could justify this ranking is the delay that was imposed on the class schedule during the Spring due to weather conditions, which speed up the class' pace upon returning to class. Students were faced with a tight time schedule to cover the missed sessions along with multiple examinations. Therefore, there was not maybe enough time for the students to grasp the chapter 4's materials. Both chapters 6 and 7 are between difficult and intermediate which appears to be logical, knowing that these two chapters are accumulating all the course's principles covered, which tend to be challenging for students.

Towards the end of the course, students were asked to give their overall evaluation of the class on multiple levels to enable the instructor to quantify the students' learning experience during this semester. In addition, their feedback shall contribute into the improvement the methods and tools used in mechanics of materials to reach better outcomes in the future. Consequently, an online survey (Appendix 2) was sent to the students to provide their insight concerning the class. 20 out of 25 students have given their feedback.

a. Content overview:

The first section of the survey was meant to translate students' global feedback about the class. The first question tackles the overall rating the students' have granted this course. According to (Figure 3), the largest part of students believe that this course was hard. The rest believes that it is of intermediate level of difficulty. Given that the class is not an introductory engineering class, rather dedicated for students of at least sophomore/junior standing, explains why it is not thought of as an easy course. Moreover, it should be taken into consideration that the studied principles in this course require thorough understanding of the concepts in order to be able to apply their

knowledge into the problem-solving process. Hence, given the several time constraints this course had throughout the semester, it might have been considerably challenging for students to embrace the class' materials properly.

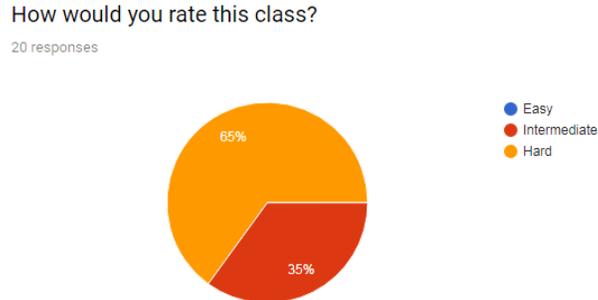


Figure 3: EGR 2312's overall rating.

In regard of the difficulty carried out in specific chapters, the students were asked to specify the chapter the one that particularly challenging for them. As it appears (Figure 4), the last four chapters (7/8/9/10) were the most challenging ones. This could be due to the fact that in the midst of these chapters, the students were required to use the knowledge accumulated from all the covered chapters in order to be able to solve the proposed problems. Chapter 5 was also voted one of the challenging chapters, which could be explained by the importance of Statics' foundation for this chapter. Thus, if there is a lack on that regard, the chapter could appear to be challenging.

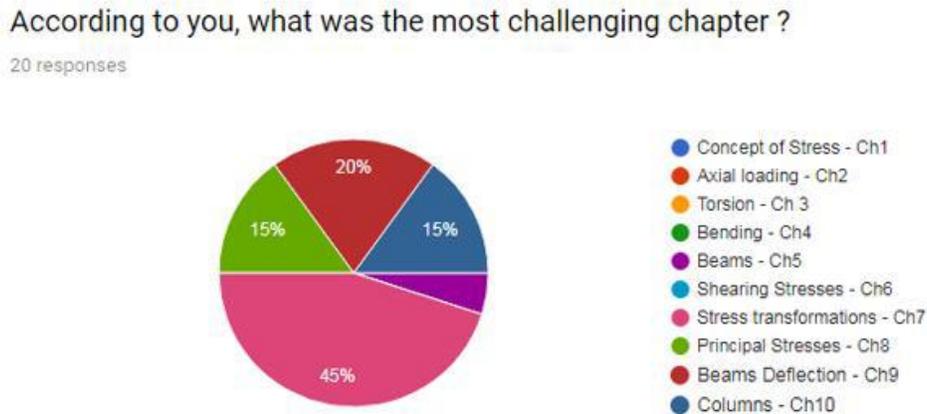


Figure 4: The most challenging chapters.

On the level of the chapters' order, the absolute majority (Figure 5) of the class is satisfied with the current order adopted for this course. Thus, no changes on that level are to be considered.

Would you prefer that the chapters' order change?
20 responses

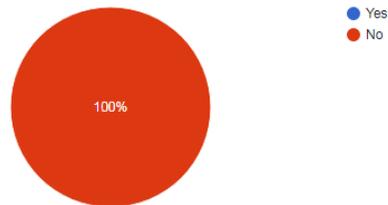


Figure 5: Chapters' order.

Moreover, a discussion that have occurred in many occasions during the span of the semester, is whether combining specific chapters is due. According to the class' response (Figure 6), the vast majority are satisfied with the current outline as it is. However, others have voted to combine chapter 5 and 6 since the former is completely revisited and used in the latter, which would make combining them an optimization the course could benefit from. Few voted to combine the first two chapters as they are both introductory and covering a similar scope of information. One student voted for the combination of chapter 3 and 4, which is evidently an unachievable decision as these two chapters have an important weight in the course and need to be dealt with separately.

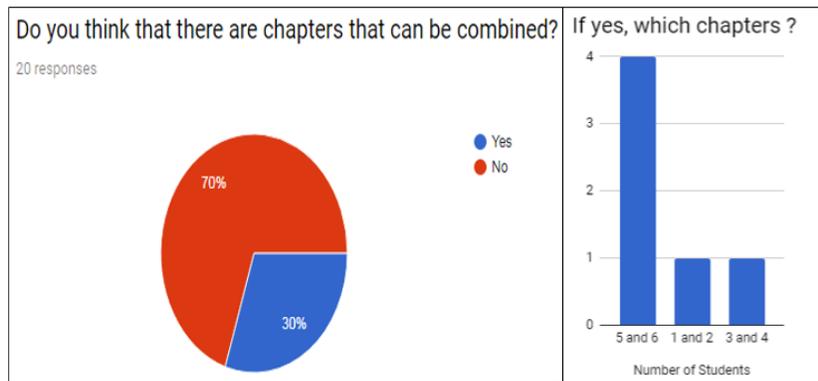


Figure 6: Combining Chapters.

b. Examination:

The second section of the survey tackled the examination component of the course (Figure 7). First, the students had to assign a rating based on their overall judgment of the tests’ taken in this class. Their answers ranged from “Very Challenging” to “Average”, while the majority believes that the tests were merely ‘Good’ with a slight element of confusion that could have been included in the difficult exercises of the exam. The latter was evidently never seen easy by the students as they all agree that the tests were never similar to the homework (including the sample tests).



Figure 7: Tests’ overall rating.

Second, students’ preferences concerning the tests’ format were recorded. The vast majority (Figure 8) agreed that the current format of “Set of Problems” is suitable for the class. On the other hand, 10% voted for study cases (which shall be further discussed later in this paper).

What test format would you prefer?

20 responses

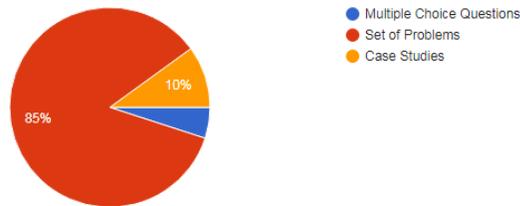


Figure 8: Tests’ format.

Third, the number of exercises in each test were bound to be discussed. The majority (Figure 9) think that four exercises per exam is a reasonable number. Few voted for five exercises and one student for ten (If maybe a multiple choice questions is preferred in this case). As students had the option to add other options if they had any, a considerable number voted for four exercises with a bonus one. As stated before that the tests were between challenging and average, the bonus exercise enables students to work harder in order to gain point that shall compensate for a deficiency in their exams’ grades.

What is the number of problems that should be assigned to every test ?



Figure 9: Number of exercises per test.

Fourth, the students had to convey their opinion concerning the examination strategy. The result was that 19 out of the 20 students (Figure 10) who filled the form strongly prefer the CA strategy.

Do you think continuous assessment is better than the normal one (Midterm+Final)?

20 responses

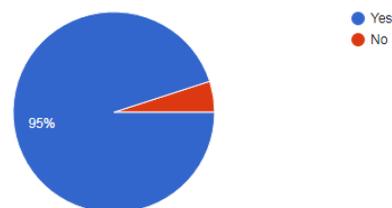


Figure 10: *continuous simple summative assessment vs traditional summative assessment.*

c. Course Pre-requisites:

In order to better understand students' needs in the class, it is primordial to know which skills and previous acquired knowledge was indispensable for them during this course. Thus, the students' had to answer an open short question about the necessary pre-requisites for this class. It is completely how Statics got the majority of votes (Figure 11) as it is a very important component of this course. The math classes suggested are important to understand the deductions that lead to the final mathematical expressions used in the different chapters.

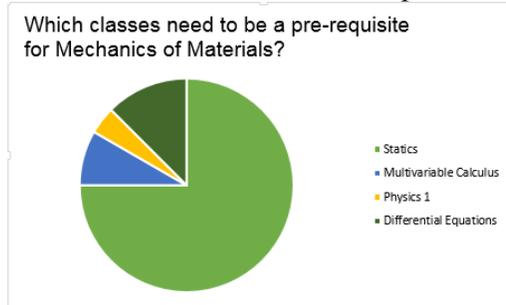


Figure 11: Pre-requisites for EGR 2312.

d. Learning experience:

As a synthesis of all the factors that the students' responded to, they were asked to rate their learning experience in this class. Half of the class agrees that they had satisfying experience where they feel that have indeed learned a lot in this course. Most of the rest believe that they relatively learned about new information, while one to two students think they have not learned anything or cannot decide on that currently (Figure 12). The students were asked about the elements that could have improved their learning experience in this class. One of the major point on which many students have agreed upon is to have homework assignments that are strongly relevant to the tests. In many occasions, the level of difficulty of the homework were considerably lower than the one opted for in the exam. To have more examples in class is another priority for students as it enables them to fully grasp the taught principles. Another important point to mention is the importance of correcting the homework assignments in class as it shall compensate of the small number of examples tackled in class, and it will also help students prepare for the tests. Few students believe that the explanation in class should be more detailed.

How would you describe your learning experience in this course?

20 responses

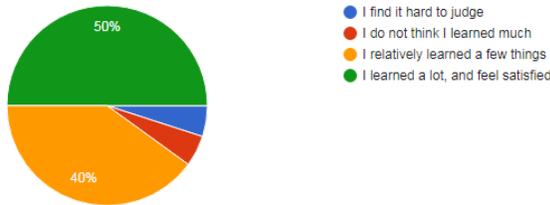


Figure 12: Learning Experience.

5. Potential updates

a. Exam time:

Since the class schedule is already struggling to cover class chapters despite the unfortunate time constraints, displacing the exams' time outside class session would be beneficial. This shall contribute in both reducing the time pressure on students and provide a certain flexibility to exams' scheduling if any uncontrollable circumstances occur, just like weather conditions. To this extent, a question in the final survey was dedicated to receive students' opinion on having the test outside class time. The results (Figure 13) were as follows:

Do you prefer the tests outside class time ?

20 responses

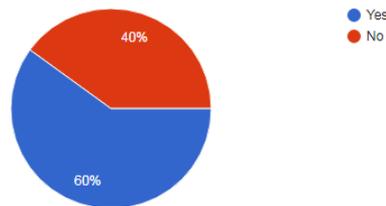


Figure 13: Exams outside class time.

Based on the figure above, it is obvious that the students' majority are supportive of this update, proving its potential rate of success.

b. Practice level:

One of the major obstacles that students face in EGR 2312 is the lack of practice. As an engineering class, students should have access to a larger range of exercises which will enhance their problem solving skills. Currently, the few exercises provided along with their solutions, serve the students'

to only pass the class without necessarily grasping thoroughly the principles employed in the chapter. This both doesn't help the students to be fully prepared for the exam nor to preserve understanding of class' materials on the long term. Therefore, by searching for potential additions to the class to recover this problem, a set of suggestions were presented to students' in the final survey (Figure 14).

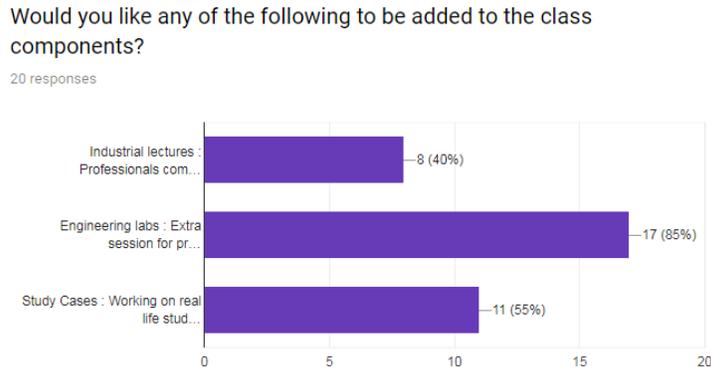


Figure 14: Potential additions.

c. Industrial talks:

The goal is to enhance the students' understanding of the class materials by presenting real life professional narratives. Upon inviting individuals who are exercising a profession in a field that requires a certain level of Mechanic of Materials knowledge. This could both help the students with the course outcome, but also expand their perspective concerning the materials learned in the class room and their link to the real world. Based on students' responses (figure 14), 40% are welcoming this suggestion.

d. Engineering labs:

In order to find a balance to the lack of practice problem, a potential solution would be adding a lab session to the class outline. The lab will serve as an opportunity for students to solely focus on exercises, and both correct and discuss them within the class circle. This will enable to increase students' understanding of class materials, of the solutions and develop their critical thinking skills. According to the figure above, the majority of the students believe that an engineering lab would enhance their learning slope in this course.

This solution has been considered before, but could not have been implemented due to multiple constraints. One of the biggest challenges is the person to be in charge of these labs. With the instructor's loaded schedule and the small number of teachers' assistant/PhD candidates, the lab instructor position remains vacant. One suggestion would be presenting the students of the set of the exercises to be tackled in each session, and assign either: 1. Each time one of the students to

be in charge of the lab sessions, or, 2. For each lab session, one student per exercise, meaning that a group of students will be in charge of the entire lab session, each of one of them will be responsible of one exercise. It goes without mentioning that this should be an alternating method, where each time a different student/group will be chosen to run the lab, providing the protagonist with an incentive bonus. This strategy can at the same time:

- Increase the practice component of the class;
- Motivate students to earn extra credits and enhance their learning skills through their lab duties;
- Enhance the students' team skills;
- Develop their critical thinking abilities.

As a matter of fact, the University of Wisconsin-Madison have implemented a similar model where students would get an A in the lab component of the class by simply attending all the session (College of Engineering). This is important as it differentiates the lab session from tutoring session that might be offered if it does not meet their time schedule.

e. Study Cases:

This suggestion comes as a customized combination of the previous two. Study cases are meant to be on a monthly basis (3 maximums per semester). They will provide student with an extra practice, presenting a real-life problem that shall require the employment of the class principles covered thus far in the class to solve the situation, to be achieved in small groups of two or three students. This potential addition could come as an arbitral compromise to meet the needs of students under the present constraints and conditions. Over half of the class (Figure 14) are willing to work on study cases in this course.

These study cases could be practical as well and maybe it will enable to balance between teaching engineering science and practice. Group of students are formed to work on concrete hands-on projects where the knowledge acquired during the course should be applied. Not only it boosts the teamwork skills, but also install the engineering process in problem solving more effectively as students get to work as if they were real life engineers. This will furthermore drive this course to meet the ABET criteria concerning teaching students the engineering ethics.

5. Conclusion/Implications

The CA strategy continues to achieve its primary intended outcome which adopting an examination method that shall both evaluate the student's level of understanding without jeopardizing his/her chances in passing the class. Moreover, this method also enables an effective

tracking the ABET criteria's incorporation within the class materials. Throughout the continuous homework evaluations, the students' feedback on these criteria enabled assessing the extent to which the class had fulfilled this goal. This shall bring attention to the criteria that received lower votes and ways to increase their partition in the course' curriculum. Furthermore, the continuous evaluations filled the gap between the students and the instructor where a better satisfaction was achieved during the semester concerning the level of difficulty of the exams, and the learning experience in general. However, certain challenges were heavily apparent and expressed through the students' class' overall evaluation. Several suggestions that could resolve the existing obstacles have received the support of students. They could be of valuable help in order to improve the class' future format, enabling it to reach an optimum level of practice and theory.

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ASPIRATIONS OF PUPIL TEACHERS AND THEIR PERCEPTION ON LIFE SATISFACTION: A QUALITATIVE COMPILATION

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Abstract

The prospective teachers doing their Bachelor's in Education (B.Ed.), were included. Peer group, media, and other factors affect the behavior of late adolescents that leads to belonging and acceptance while they study through education program(s) before the B.Ed. course. Most pupils have evolved in expectations from themselves, personal, and professional; have aspirations to experience life, and a certain level of life satisfaction. The study aimed to identify the aspirations of male and female students (N=200) of Chandigarh, India, and also assess their life satisfaction, to predict their well-being and happiness as individuals, consequently as teachers. A self-designed interview schedule was developed to assess the aspirations. Compilation of aspirations were engaging in well-paid job, rising to self-dependence soon after the two-year program, and to find a companion who respects their values and lifestyle. Some wanted a longer time of singlehood and freedom. Life satisfaction was drawn using self-developed checklist on happiness, health parameters, calmness, response to challenging situations, identifying strengths over weaknesses, and passion for the profession. Qualitative summarizing points at stress in youth-unpredictability of job availability, and least zeal to initiate their own enterprises, attribution towards the overall social environment to have expectations from them, as persons as well as teachers. The education colleges need to include activities for well-being of pupil teachers who are proactive individuals by healthy engaging, and promoting specific skill-building as better teachers, who make realistic aspirations and practice positive thoughts and attitude in creating work than seeking jobs. Satisfied and self-enriched teachers can help in good nation-building and a happy universe.

Keywords: aspirations, life satisfaction, social environment, well-being, proactive individuals

Introduction

A teacher is a person who teaches or facilitates the learning process to build, identify and to acquire skills that will help a student to become a competent adult and face the challenges in life; he or she also enhances attributes for enhancing overall development. A teacher builds an inclusive environment. This demands highly motivated, qualified, and meaningful teacher training. According to Goods Dictionary of Education, "Teacher education means all the formal and non-formal activities and experiences that help to qualify a person to assume responsibilities of a member of the educational profession or to discharge his responsibilities more effectively". The teaching profession usually has individuals passionate about teaching and enjoy working on domain content, sharing it with younger learners at different levels. Traditionally, very few teach

because of salary, benefits or prestige. However, while intrinsic forces may motivate people to become teachers, extrinsic conditions can influence their job satisfaction and their desire to remain in teaching throughout their careers. The students in any course have a set of dreams, vision and aspire to be functioning as productive adults. These aspirations design their performance in learning programs and as persons to nurture their persons and feel satisfied in life. Thus, life satisfaction is the drive or a self-check to do or not to do things in learning, and otherwise too.

The training as teachers in the Indian Higher Education, be it in colleges or universities is offered as Bachelors program in two ways, one as an integrated 4-year program along with graduation in science or humanities or equivalent program, or the popular longtime practice of enrolling for B.Ed. after graduation as a minimum qualifying program. At present this course is offered as a two-year program. During this program, there is one semester for teaching practice in schools. According to National Commission for Colleges of Education (1996), teaching practice is to help the pre-service teachers to develop positive attitude towards the teaching, to expose them to real life classroom experience, to discover their own strengths and weaknesses in teaching, to provide a forum for them to translate educational theories and principles into practice, and to provide them with the necessary skills, competencies, personal characteristics and experiences for full-time teaching after graduation. The quality of teaching practice during the training will determine the quality of outcomes (Amankwah, Oti-Agyen, and Sam, 2017, p.19).

Aspiration involves evaluation analysis and decisions associated with the job. Teacher attrition is among the most salient problems facing education systems worldwide. Happiness and healthy society is part of a healthy and happy training in childhood, which leads to competent adult life. Societal attitude, nurture in the primary environment developing an optimistic life satisfaction attitude creates a calm, healthy, happy and responsible younger one. Recent researches and trends on satisfaction, happiness, and positivity explain how perception about life satisfaction has been changing in recent years for the millennial generation. It is an imperative perception which enriches psychologically the working environment for a teacher. It boosts teachers' cognitive ability and affective disposition which empowers improvement through innovative teaching and learning by teachers and teachers' trainees. Leadership is an aspiration many teachers have so as to feel in control of the situation. Muijs, Chapman and Armstrong (2013, p.778) looked at the extent to which the early career teachers could take up leadership roles by using a mixed method approach, involving a range of quantitative and qualitative methods including surveys, case studies and similar tools to gather information. Most early teachers were found to be keen and able to exercise leadership, more in informal leadership roles like taking initiative. School support committed senior management and practical hands on support was constantly required. It implied that, to utilize the leadership potential of pupil teachers, the training program must prepare them for it.

There are factors to lead choice of path as a career. An inbuilt motivation keeps them driven. Motivation has been considered an important factor for attracting good candidates to join,

and remain in the teaching profession (Bruinsma and Jansen, 2010, p. 197). This factor helps teachers to enroll them in a teaching profession. The literature shows that extrinsic and intrinsic motivations are the two main types that entrant teachers may have towards teaching (Moran et al. 2001, p. 28); Watt and Richardson 2008, p. 409). Teaching and well-being are being affected by the motivation of the teacher (Watt and Richardson 2008, p.426; Reeves and Lowenhaupt, 2016, p. 185). Early teacher motivation research had common interests in initial teachers' motivation for career choice. Satisfaction and good preparation for family life were the top reasons for entering teaching. Teaching is a passion for working with children or adolescents, imparting knowledge, a means to continue self-education and yet, for some, service to society. Pre-service teachers' motivation to teach, in-service teachers' motivation to continue teaching, and the enlarged research fields from identifying influencing factors to exploring its associations with various antecedent or consequent variables, are stimulating for extending the existing theoretical perspectives, research scope, methodology and instruments in the future study.

Aspirations of teachers largely depend upon their characteristics and disposition. The teaching profession requires certain dominant behaviors that show the teacher's intellect, desire to excel, extended professionalism and teaching as a life concern. The aptitude gives shape to the aspirations (Lata, 2017, p. 55). This is a profession that exalts service above personal gains. Teaching involves human nurturance, connectedness, warmth and love and the teacher's beliefs about his role in caring for the student plays a crucial part in developing the personality of the students. The attitude of teachers has also been determined to be influenced by gender. They must be away from monotony of work (Jyoti and Sharma, 2006, p 360). Teaching is perceived as a difficult job among people due to various reasons. There can be teething difficulties and some pre-notions, certain stressors not directly related to the job such as those related to sex role identity and job stress, and between sex-role identity and job satisfaction. However, job stress is negatively associated with job satisfaction.

Life satisfaction is one of the primary to lead to a happy life and make a sense of living. It is a cognitive component of subjective well-being and the judgments made by a person during the life span, a general evaluation of life qualities according to the criteria that the individuals select on their own. Moore (2012, p. 2) worked on school teachers along with other employees described extra information on the demands of teachers, school condition and the problems. The School-, Teacher-, Principal-, and School District Questionnaires were used. Dissatisfaction faced by a teacher was assessed based on teachers' overall views and feelings regarding the profession. The school environment and student and community problems lead to dissatisfaction. Autonomy and leadership had positive impact. The study implies a negative environment in school including relationship with fellow teachers, principal, students, motivation towards the job, freedom to exercise independence, supportive administration, recognition of achievement, general satisfaction with salary, to name some, to lead to dissatisfaction among teachers with their job directly/indirectly affecting their outcome. Teachers feeling a positive environment and who had control on classroom setting were more satisfied with their jobs. Teacher motivation, teacher

effectiveness and student motivation are all intertwined (Han and Yin, 2016, p. 15). There have been studies to verify that attitudes and competencies determine the quality of chosen career as a teacher as observed by Bhargava and Pathy (2014, p. 28).

A research by Yilmaz (2011, p. 820) conducted on 554 student teachers (352 females, 203 males; 269 freshmen, 285 seniors) to explore if the students of teacher training program ever had teachers whom they found to be effective and if they had any influence to take up this course in education. The research was conducted using self-developed tools, namely Personal Data Form and Effective Teacher Qualities Survey. 94.8% of teacher candidates were found lucky to have had teachers perceived to be effective in their educational experience. Females and senior year students expressed having more effective teachers as compared to males and freshman year students. 57% of teacher candidates perceived to be effective had a great influence on their selection of profession and program of study; it was higher for females than for males. The majority had a preference for a "loving, affectionate, sincere, friendly, sociable and warm" teachers. The top ranked characteristics of an effective teacher were enthusiasm, dynamism, and motivating for students to learn.

Life satisfaction comes with meaning attributed to the life adaptation, to the achievement of objectives, positive individual identity, that the person feels physically good, economically secure and in good social relations. It could hang between choosing a life partner or a career. Demri (2014, p. 4929) investigated the relationship between job and life satisfaction among teachers reflecting job satisfaction levels to be higher than for life satisfaction. Economic problems could be the cause as economic insufficiency affects their life satisfaction. There was a positive significant relationship between job satisfaction and life satisfaction. Hasan et al (2015, p. 104) in a study about life satisfaction and social support among private and government school teachers of Faisalabad presented job style and grading to be important factors of life satisfaction of life. Government teachers were found to be more satisfied; they performed well in job better lifestyle, income packages, and social support. Dagh and Baysal (2017, p. 1252) mentioned a significant difference among teachers' perception according to their gender, marital status, and monthly income.

Bastian et al. (2017, p. 86) used a 5-factor model of personality. The findings indicated conscientiousness, comprising of whole lot dependability, being responsible and motivation to be significantly associated with higher value-added estimates, higher evaluation ratings and, higher retention rates. Self-efficacy, a sub domain of consciousness, was significantly associated with teacher value added and evaluation ratings. Conscientiousness was strongly connected to employee performance; it leads to retention. Schools should include such measures to improve hiring decisions. Autonomy was highlighted in a study by Cubucku (2016, p. 17).

Pupil teachers were found to be fair, patient, helpful and friendly to the class, successful in fulfilling one of the most valuable attributes for teachers. Teaching skill was improving over time. Students had a positive role in development of pupil teacher's teaching skills. In two specific

relationship-oriented questions, girls rated pupil-teacher relationship more positively than boys. These researches serve important feedback for pupil teachers to improve themselves as a person and a teacher. This research supports findings by Moore (2012, p. 2) on the student teacher relationship. Teachers' capabilities contribute to a positive environment in school which helps to build job satisfaction is endorsed too.

Sarah (2012, p. 15) investigated the challenges and constraints faced by women in continuing their education with the main focus on B.Ed. part time program on 150 random women enrolled in Usman Danfodiyo University using a 4 items questionnaire and oral interview sessions. Major challenges faced by them included poor time management, increasing marital demands, poor financial base, lack of appropriate learning environment, little or no encouragement and motivation from the spouse and increasing social pressure. It was recommended that women should be tutored with optimum and strategic utilization of time which will help them better manage both professional and personal life, and do justice to the course by investing a good time in learning and applying the skills required to be an effective teacher. That functions as the key in achieving satisfaction while fulfilling their aspiration.

Adekunle (2000, p. 78) identified inadequate time and unserious attitude of student teachers towards the teaching practice program leading to the pre-service teachers not gaining the intended skills, confidence and knowledge needed to cope with classroom situation. Smith (2014, p. 880) examined the professional aspirations of student teachers using of questionnaires and interviews to know students' perception of leadership, aspiration, and self-perception as potential leaders. While students' inclination towards subject leadership and teaching-learning oriented roles remained similar yet a gender-based trend was found. Women preferred and aspired for the post of special educational needs coordinator; men aspired towards more senior posts, also as potential head-teachers. A teacher's key role of imparting knowledge and shaping the youths has been endorsed by HakiElimu (2009, p. 10).

Pre service training improves the degree of favorableness towards teaching in the trainees. Pop and Turner (2009, p. 688) explored the relationships of pre-service teachers' levels of commitment to teaching and their beliefs and perceptions of teaching as a career. Sixty-seven pre-service teachers completed a survey to rate the importance of 20 factors for influencing their choice of career. Pre-service teachers' understanding of their goal of becoming teachers and interpretations of their motivation for teaching was unique.

Woodhouse and Pedder (2016p. 556) in a three-year-long longitudinal study on early career teachers' experiences and perception of leadership development inferred that the two ways in which early career teachers' leadership and aspiration formed are within, and in response to, what they perceive to be the nature of their particular school contexts. Compliance and identification with leadership were highly associated with one's effectiveness in performing a specific task leading early career teachers to accumulate needful developmental experiences, skills, aspiration and such attributes for being an effective leader. However, some experienced a feeling of

detachment and were unwilling to position themselves as leaders as they perceived leadership to be characterized by high accountability and blame. This unwillingness to accept the post and detachment was found to be closely related to a reduced capability as leaders.

Bogler (2001, p. 671) inquired on teachers of Israeli schools using a quantitative questionnaire to examine the outcome of leadership style, principal's decision-making strategy and teachers' occupation perception on teachers' satisfaction. Teachers' occupation perception had a great influence on job satisfaction. The Principals' transformational leadership had a huge effect on teachers' satisfaction, both directly and indirectly. Moral judgment and social maturity of B.Ed. students were found to play a very important role in the life of student teachers and for all the students who live and grow in the complex social environment, as found by Kumar in (2017). A good understanding of moral judgment and social maturity helps a person to adjust effectively in society over the coming years. A teacher with good command on moral values and social maturity was expected to guide one's students in a superior way to influence positively on the classroom environment and in turn derive higher job satisfaction for being of help. Bergmark et.al (2018, p. 11) on a qualitative study to identify student teachers' perceptions of the teaching profession and motives of their career choices wrote a letter reflecting their thoughts on why they want to become a teacher. A close relationship between the perception of the teaching profession and motives for choosing the teaching profession and motives for choosing teacher education was reported.

Objectives

- To understand the aspirations of pupil teachers about self and teaching as a career.
- To understand pupil teachers on their perspective on life satisfaction and their overall awareness of its potential contribution to a feeling of well-being.
- To draw suggestions from the responses on the two variables and incorporate these into improving student support systems at the college level and propose to the state.

Methodology

The study included 200 students of Bachelors of Education (B.Ed.) studying in Chandigarh. Of these, 179 were females and 22 were males. The range of age was 22 years to 40 years; 180 were up to 33 years. The remaining were 34 and above. The sample was equal in number from each of B.Ed. first year and second year.

Information was collected using a semi-structured interview schedule on their aspirations. 25 questions were framed, probing into the mind of the respondents from simple innocent belief systems up to understanding their highest dreams. The questions were framed based on purposive time spent with 3 male and 3 female pupil teachers by the researcher to have a lengthy discussion on their aspirations. The interactions gave a foundation of understanding the total sample on parameters ranging from the influencing factors which permit a young adult to have firm opinions on what they want from their life and how far could they take a stride to get there. It also reflected,

in particular, their journey as a student to a career person, soon to be a teacher. Life satisfaction was drawn using self-developed checklist (4 items each) on happiness, health parameters, calmness, response to challenging situations, identifying strengths over weaknesses, and passion for the profession.

The investigation was done in four batches for each class; tool 1 for 50 students each, followed by tool 2 for 50 students each from B.Ed. first year. The pattern was repeated for B.Ed. second year. The students consented to participate in the student and they were comfortable with the idea of being assured confidentiality and their responses be used only for research purpose to improve the pupil teaching in future for holistic growth. The sample being aware and mature, participated fairly and responsibly.

Results and Discussions

To fulfill the three objectives of this study, the keywords in responses were enlisted and frequencies were drawn. The kinds of responses helped to draw common areas and also highlight peculiar perceptions and desires that would make the pupil feel fulfilled in life.

To understand the aspirations of pupil teachers about self and teaching as a career.

Understanding the demography of the respondents

Majority of the students from the first year B.Ed. were postgraduates. In comparison, there was approximately an equal number of graduates and postgraduates in the second year, pursuing B.Ed. 70% of the students were non-residential. The remaining were staying in either college hostel or rental accommodations. The students varied in their socio-economic status ranging from the low-income group to the upper-middle-income group. The majority of them were from the middle-income group. Most students were from the lower middle and middle-income group. 125 had dual working parents. 32 families were single-parent families due to various reasons. 63 students were partially supporting their expenses by working as a private tutor. 38 students had retired parents. Many parents had health issues. About 20 cases were from families with financial challenges and were supported private or public aid.

Inspired aspirations

The students acquired their aspirations from the desires and expectations of their parents/grandparents. Many idolized them as well.

Aspiration about self

Most of the students were self-responsible. They were conscious of doing well in the course-related work. They aspired to reach a stage of working as a full-time teacher as soon as they finished their course. They wanted to fulfill their financial aspirations to be fully independent

individuals, earning enough not to bother their parents anymore. Few had a guilt trip on limited means at home and pursuing education instead of working. Honesty, appreciation, uncluttered behavior of the people around them, having a means of transport, a decent bank balance were some common desired things they wanted to have on them.

Aspiration about teaching as a career

The respondents had high aspirations in seeking a permanent pensionable teaching career. About one-fourth of them had scored very well in their masters already and were taking qualifying exams to work as assistant professors in the colleges. The latter had higher aspirations, their conduct was more mature towards peers and they were less stuck on challenges faced. They had role models among parents and their mentors too. Most students were interested in daily life activities other than books and assignments. They could compartmentalize their lives very well.

To understand pupil teachers on their perspective on life satisfaction and their overall awareness of its potential contribution to a feeling of well-being.

Perceptions on life satisfaction on self, a child to their parents, a friend among peers, as a classmate, as a team performer in the training program

The young adults in the sample believed that feeling good and healthy is the foremost thing that mattered. Self-sufficiency influenced their life satisfaction the most. They were high on multitasking and busy taking other qualifying tests for teaching, banking, staff selection tests in offices of various nature. They must feel accepted and respected by their family to feel happy and satisfied. Some of them had grudges against their parents about staying away from family, choosing a companion of their choice as a friend, having chosen this course over another of parents' choice. These rebel vibes led to disharmony among these few.

Perceptions on achievements as determinants of life satisfaction

Highly motivated ones had self-regulation on working hard, attempting in various domains to qualify or to earn even if as private tutors and carrying money as an achievement. The age in their favor and that further influenced them to earn better. Every small achievement gave them positive energy.

Perceptions of grievances and challenges felt in life and the responses to these

Life satisfaction is also perceived as an antidote of no dissatisfaction. Any human being would not be free from some grey area in life. The choice of response determines whether a problem is solved by a proactive solution-seeking or giving up. Tasting success was learned by some respondents on dealing with challenges as simple as an unfriendly roommate to a chronic disease of a single parent asking for earn while learn and also giving physical care to the widowed mother. Early responsible role-taking had made such students calmer and appreciating of small

achievements. They did not seek to top in the class while moving on daily was energy giving. To a few perpetual toppers, anxiety levels were high to feel threatened in competition to maintain a certain position among their peers. Remaining among the top gave them satisfaction.

Perceptions of happiness and calmness experienced in life

These virtues were best seen as learnt from role model response systems imitated by the next generation. Learnt behavior of being happy and calm was observed to decide a lot on how youth conducts daily. Teachers' behavior, quality of life experiences, healthy bonding among same and opposite-sex friends reflected an important impact on the feeling of happiness and wellbeing.

To draw suggestions from the responses on the two variables and incorporate these into improving student support systems at the college level and propose to the state.

Identified challenges as per demographic factors.

Respecting the pressing needs

SES matters, so does the social support system. The college program should have paid engaging or barter services with amenities to marginalized students.

Evolved areas of most strong aspirations, personal and professional

Aspirations and dreams area of a driven positive life. Healthy engaging of youth and best practices that involve them in activities must be acknowledged, refined and creative ways to occupy youth continue.

Compiling challenges related to the academic issue

Libraries, inspirational talks, field visits, and youth exchange programs of a superior level should be designed and practiced. Free ships and scholarships should be incorporated to support the needy and high potential students.

Respecting unfulfilled zones of life as a young adult

Accepting every individual with strengths and weaknesses will lead to a feeling of fulfillment and worthiness.

Buffers to heartbreaks or supporting strength from the loved ones

The phase of life is of establishing an identity as a charming, attractive and accepting persona that will bond with a person in a dedicated one to one relationship sooner or later. Students with recent hurts due to any reason had a low feeling and an unhappy zone on their mind. The

discussion further helped to understand that a listener in a counselor helps them to empathize, talk it out and be more accepting of life to move on. Stereotyping could create a block.

Unique experiences

Keeping all the doors open: Having a 40-year-old in the class had positive energy. The senior in age led to unconscious learning about life. Similarly, having a peer with neural issues sensitized them to be humble and respecting of others' limitations.

Apprising college staff from time to time to offer behavioral support and not letting them fall

The total team support of the institution as desired by the students as per their expectations would bring about pleasant experiences and less threatened life. The college experience with a counselor for walk-in support had a positive impact.

Celebrating life

Rejuvenating activities were endorsed by all the students to feel good and happy. "Not that life is perfect for everyone, but can be made to be fun by traveling light!" said a student from Tibet in the class.

Conclusions

The pupil teachers as potential youth and as future teachers are a part of the young population in a focused learning program. They have aspirations to fulfill which nurtures them as a person and as a professional. Teachers possess intrinsic and extrinsic factors to be engaged into this career. It is the responsibility of the education system of the state to offer a holistic opportunity to them for learning, practicum, life skill-building opportunities and avenues for creativity (Ratna, 2016; Kumar and Azad, 2016). The way the students perceive their training program will impact their perception and performance (Nenty, Moyo, Sello and Futi, 2015). Students identified as good teachers could be recommended for work right away as a treasured human resource. Good work learning and work environment permit sensitive teaching. Good administration and non-teaching staff can make the journey further memorable. Investment in good teachers remains to be the basis of a good nation and a good global community in a culturally diverse world.

What can be done further?

The findings bring attention to a flexible program for pupil teachers, reinforcing good behavior. Further research can be between institutions. Cross-cultural opportunities can be created, to exchange the best practices. Pupil teachers have the potential to shape the future of any country. Better remunerations to the founders of human resources need to be considered by the state.

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Role of Higher Education in Bridging the Skill Gap

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Abstract

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According to the survey it was found that the current education system focuses more on rote learning of subjects but it is leading to the poor quality of education system, but to fill the handed to professional work environment and application oriented. To build this requirement gap freshers are to be passed through a foundation on training programme by employees for few months before they come on the job. For long term sustainable outcome, current Indian education system is to be more application oriented. Around the world, employers, educators, policymakers, training organizations and others have recognized the critical importance of tackling the skills gap. The main key characteristics for the teaching and learning across the various fields of i.e. general, academic, vocational and technical, should incorporate various strategies, which wholly depends on learning environment, teaching methods of learners and various supporting factors. In order to increase the economy of the country and to solve the skills gap it is very much important that higher education (Professional and Technical) should be allowed to increasing access and completion and evolving which career opportunities. These strategies are determined partly on subject matter to be taught and partly by the nature of learners developing reciprocity and cooperation. Through the research paper, researcher want to attempt to find solution in analyzing the role of higher education in bridging the skill gap and other related factors on professional institutes of Jaipur by drawing certain conclusion confronting a problem.

Keywords: Higher Education, Bridging the Skill Gap, Economy, Professional and Technical Education

Introduction

Aspirants of higher education are always concern about the relevancy of their education for the desired skill development and employability, and possessing these skills and confidence for employability boost the motivation level among them. Higher education level increases the chance of unemployment person to get employment and will emerge with a comparable wage and reduce the time required to search new employment. Unemployment can have a devastating impact both on a household and the general economy.

This study investigates the causal effects of education on individuals' transitions between employment and unemployment, with particular focus on the extent to which education improves re-employment outcomes among unemployed workers.

Present education system is more emphasised and targeted focuses on rote learning of course subjects as opposed to a professional work environment that requires freshers to be hands on and application oriented. That required gap is usually built by the employers by go through the freshers for training before the on job. However, a long-term sustainable solution to this would be a revamp of the current Indian education system to be more application oriented. There is need to align the syllabus as per industry needs.

Bridging the Skills Gap: Higher Education's Opportunity

Around the world, employers, educators, policymakers, training organizations and others have recognized the critical importance of tackling the skills gap.

To help the country solve for the skills gap and allow for higher education institutions to thrive in the economy of the future, consider following: Increasing access and completion and Evolving with career opportunities

Developing a Model for Technical Teaching and Learning

In order to understand the technical teaching and learning, a model is being developed. According to the model, learner at centre. Being learners be the primary recipients and beneficiaries of teaching and learning. Drawing on the literature reviewed the model consist of rings. First learners are being primary as they are the one who are exposed to learning in their primary and secondary school education, which prepare them as a characteristic of quality, good learner who prepare them for their further higher education.

The another ring or system of provision presents the characteristics of technical, professional and vocational education, As the review evidence did not attribute exclusive properties to technical education, the model does not differentiate technical from vocational education.

Key Characteristics of Quality Teaching and Learning

For quality teaching and learning the main key features for the learners across all types of education (i.e. general, academic, vocational and technical), includes various strategies including the learning environment, teacher and learner relationship method of teaching and various supporting factors. These strategies are determined partly on subject matter to be taught and partly by the nature of learners developing reciprocity and cooperation.

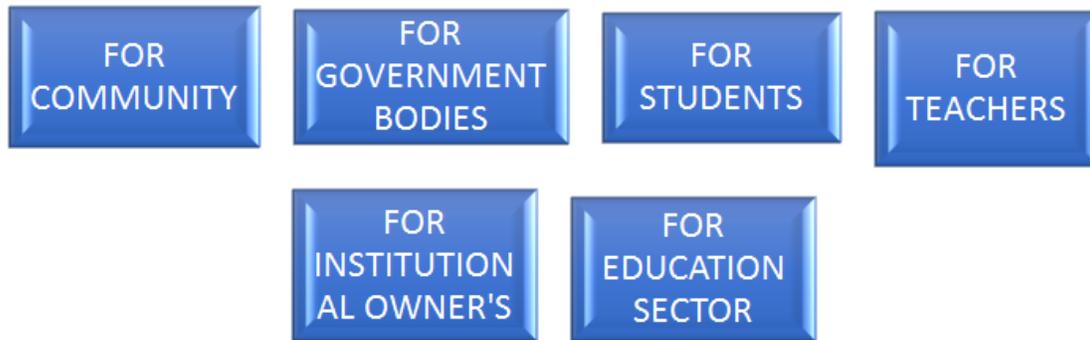
During the review of literature and survey discussion it was found that the quality of teaching and learning strategy.

According to the Black and Yasukawa's in 2013 the quality teaching in vocational education and training also identified respect as an enabling factor of good teaching. Rowe et al. in 2012 discussed the importance of creating a culture where learners are encouraged to reach their aspirations and achieve and are supported in their learning. Rown also discussed in his research that the developing a purposeful and stimulating teaching environment is essential for effective teaching. This includes creating a classroom that is welcoming and provides bright and informative displays of learners' work. These environmental factors can help increase learner motivation by fostering a sense of achievement.

Plackle et al in 2014 shown in his research for learning environments identified learning support that is adaptive to the needs of learners as an important characteristic of quality teaching and learning. Research identified the flexibility and support, whilst at the same time they ensure that challenges and attractive both on an individual and collective level.

Significance/ Scope of the Study

Significance and importance of this research in following six parts: i.e. For Community, Government bodies, students, teachers, institutional owners and educational sector.



*Source: self

Research Methodology

Problem Definition: The problem selected by the researcher for research is “Role of Higher Education in Bridging the Skill Gap” - An Exploratory Study.

Research Objective of the Study

1. To study the intelligence gathering systems that are relied upon Higher Education and
2. To develop an insight into the Relationship between skills, employment and motivation with higher education.

Hypothesis

- H_{A1} = Students from technical and professional courses get more employment than Pass course students.
- H_{A2} = Students from the technical & professional courses have more skills that suitable for the industry.
- H_{A3} = Aspirants from the technical and professional courses are motivated have more positive attitude towards the work and future growth.

Research Design

The research paper is designed for this study is Exploratory followed by Descriptive Research because it consists of surveys, questionnaires and fact findings.

Measure:

Role of education was measured in terms of perceived employability, skill development and motivation level of students. An index of statements was prepared with due investigation of literature. Education is mean to develop the employability after pursuing the particular course (Almeida, 2007; Tomé, 2007; Berntson, Sverke, & Marklund, 2006; Brown & Hesketh, 2004; Forrier & Sels, 2003). To get the employability the desired skills and learning is the most importantly linked with the courses. (Yorke, 2003, 2006; Harvey and Bowers-Brown 2003). Employability of any aspirant is interlinked with the employability skills (Andrewson & Mitchell, 2006; Cox & King, 2006; Leitch, 2006). With the skills and employability, the ambition and motivation level of students make them confident for getting success (Nabi, 2001, and Greenhaus Parasuraman & Wormley, 1990). Ten item scale (Table I) was tailored from the scale developed by Rothwell & Hardie, 2009 to measure role of education in student development. Reliability and validity were checked with factor analysis and Cronbach's alpha.. Principal component factor analysis with varimax rotation results in three factors named employability, skill development and motivation level with the factor loading range between .80 to .92, and eigen values greater than 1. (Table II). Cronbach alpha exceed for all three factors than .8 and meet the reliability criteria.

| Table I – Scale items | |
|------------------------------|---|
| E1 | There is generally a strong demand for graduates of course I am pursuing at the present time. |
| E2 | People in the career I am aiming for are in high demand in the external labor market. |
| E3 | Employers specifically target this University in order to recruit individuals from my subject area(s). |
| E4 | There are plenty of job vacancies in the geographical area where I am looking. |
| S1 | The skills and abilities that I possess are what employers are looking for. |
| S2 | My degree is seen as leading to a specific career & developing skill that is generally perceived as highly desirable. |
| S3 | I feel I could get any job so long as my as my skills and experience are reasonably relevant. |

| | |
|-----------|---|
| M1 | I am generally confident of success in job Interviews and selection events. |
| M2 | My chosen subject(s) rank(s) highly in terms of social status. |
| M3 | I can easily find out about opportunities in my chosen field. |

Source: Adapted Rothwell & Hardie, 2009

| Table II -Factor loading, Variance explained, eigen values and Cronbach's alpha | | | |
|--|-----------|--------|--------|
| | Component | | |
| | 1 | 2 | 3 |
| E1 | .808 | | |
| E2 | .855 | | |
| E3 | .816 | | |
| E4 | .814 | | |
| S1 | | | .808 |
| S2 | | | .868 |
| S3 | | | .875 |
| M1 | | .859 | |
| M2 | | .923 | |
| M3 | | .880 | |
| Variance explained | 28.109 | 24.239 | 23.074 |
| Eigen value | 3.744 | 2.281 | 1.517 |
| Cronbach's alpha | .857 | .845 | .875 |
| Extraction Method: Principal Component Analysis. | | | |
| a. Rotation converged in 4 iterations. | | | |

Sample Design

Sampling Units / Population: Universities, Institutes & Colleges: Jaipur district from the state of Rajasthan INDIA.

Sample Size: The total sample for conducting this research will be 1200 respondents, out of which 400 were from each segment, professional, technical and pass degree courses. Sample size was determined by Cochran's formula.

$$N = \frac{Z^2 * p * (1-p)}{C^2}$$

N – Sample size required

Z - Z value (e.g. 1.96 for 95% confidence level)

p – Standard of Deviation

C – Confidence Interval (Margin of error)

With the 95% of confidence level .5 standard deviation, and a margin of error (confidence interval) of +/- 5%.sample size will be 385.

Sampling Type: Non-Probability Sampling, Cluster Sampling.

Data Collection: The data was collected from Primary sources as well as Secondary sources.

In this research, researchers used non-probability sampling at Jaipur and surrounding Jaipur territory of Rajasthan, which is selected conveniently but there are so many Universities Institutes and colleges available in the district. Respondents were chosen who were recent pass out or appearing in the final examination. The choice does not afford any basis for estimating the probability that each item in the population included in the sample. No bias is there at the time of entering the sampling technique. Total 1200 student’s data was collected from the three segments, i.e. technical, professional and pass courses. Comprising equal sample from each segment. Table III shows the demographic profile of respondents from each type of course.

In this research there are few variables on which researchers have no control like number of students, number of admissions etc. Research signifies the current situation of private professional institutes of Jaipur by studying the impact of economic recession and other related factors. Being of this research, researchers aimed to final the causes/factors of the selected problem.

Table III. Demographic profile of Respondents

| | Male | Female | Total |
|--|------|--------|-------|
| | | | |

| | | | | |
|-----------------------|--------------------|-----|-----|-----|
| type of Course | Technical | 216 | 184 | 400 |
| | Professional | 276 | 124 | 400 |
| | Pass Course | 238 | 162 | 400 |
| Age Group | Upto 20 years | 286 | 145 | 431 |
| | 20-25 years | 328 | 258 | 586 |
| | More than 25 years | 116 | 67 | 183 |
| Location | Urban | 498 | 306 | 804 |
| | Rural | 232 | 164 | 396 |

Source: Author's Computation

Research Analysis and Result

Descriptive analysis:

Table IV shows the descriptive results for each variable for all three categories of programs i.e. technical, professional and pass courses. Mean and standard deviation scores are listed in table. The mean score in each variable is higher for technical and professional course. Further, the significance of difference is checked.

| Table IV- Descriptive – Mean & S.D. of employment, skills & motivation level | | | |
|---|--------------|-------------|-------------|
| | | Mean | S.D. |
| Employability | Pass Course | 5.98 | 0.977 |
| | Professional | 6.01 | 0.828 |
| | Technical | 6.09 | 0.788 |
| Skill Development | Pass Course | 4.7500 | 1.20102 |
| | Professional | 5.2944 | 1.10204 |
| | Technical | 5.5667 | 1.77467 |
| Motivation | Pass Course | 4.8074 | 1.94258 |
| | Professional | 6.0222 | 0.87775 |
| | Technical | 5.8000 | 0.84165 |

Source: Author's Computation

Hypothesis Testing

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Employability

H_{A1} = Students from technical and professional courses get more employment than Pass course students.

Education is mean to develop the skills and knowledge that help aspirants to secure the employment in terms of job or entrepreneurial initiatives. Data was analysed to measure the difference between the mean score of employment of aspirants of three categories of higher education. Table III described that there is significant difference between the employment of students of technical, professional and pass course students. ANOVA results was significant $F(3, 1196) = 32.18$ at the significance level of .000. Table 5 shows that employment opportunities are maximum in the technical field and slightly less in the professional courses. Pass Courses have a good mean score, however less than professional and technical.

Table III. ANOVA -

| | | Sum of Squares | df | Mean Square | F | Sig. |
|------------------------|----------------|----------------|------|-------------|--------|------|
| Employment - Education | Between Groups | 128.736 | 3 | 32.184 | 22.982 | .000 |
| | Within Groups | 525.146 | 1196 | 1.400 | | |

Source: *Author's Computation*

Skill Development

After securing the job the growth of the aspirants depends upon the diversity and quality of the skills possessed by them. Table IV describes the mean difference between the skills of technical, professional and pass course students. ANOVA results $F(3,1196) = 3.64$ at p level of .006 is significant, and so alternate hypothesis was approved that there is significant difference in skill acquired by aspirants of technical and professional course. Mean scores of skills displayed by technical, professional and pass course are respectively 5.5, 5.2 and 4.7, which realize that Indian education system should be nurtured more to develop more skills.

Table IV. ANOVA- Mean comparison of skills acquired by different students of different courses

| | Sum of Squares | df | Mean Square | F | Sig. |
|--|----------------|----|-------------|---|------|
|--|----------------|----|-------------|---|------|

| | | | | | | |
|-----------------------|----------------|---------|------|-------|-------|------|
| Skills - Education | Between Groups | 13.143 | 3 | 3.286 | 3.647 | .006 |
| | Within Groups | 337.846 | 1196 | .901 | | |

Source: Author's Computation

Motivation & Positive Attitude

When someone gets education, it gives the motivation and positive attitude for the future growth. As the aspirants get the knowledge, skills that match the industrial requirements, students get motivated to achieve the positions that give them the growth opportunities. Curriculum of the different programmes play an important role in motivating aspirants by developing the career-oriented skills, personality and communication that make them future ready for organizations. Table V shows the ANOVA results significant at p value .000, $F(3, 1196) = 27.48$, hence alternate hypothesis was accepted. Table 5 shows that students having professional degrees are more confident and motivated to achieve their goals.

Table V. ANOVA - Mean Comparison of Motivation level of students of different courses

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---------------------------|----------------|----------------|------|-------------|--------|------|
| Motivation * Education | Between Groups | 71.042 | 3 | 17.760 | 27.481 | .000 |
| | Within Groups | 242.355 | 1196 | .646 | | |

Source: Author's Computation

Conclusions

Technical and professional course are giving more contribution in student development in terms of employment. All the factors are having significance value less than .05 (accepted). However the average score of pass courses is also good, is the emphasis is given to develop more employment opportunities in pass courses will encourage students to choose these courses. Higher education system is improving and giving a significant contribution in employment generation through skill development and motivating them by building positive attitude. However, there is need to give

more emphasis on skills development, to compete the global education system. Further results show that colleges and university should also focus on pass courses or traditional degree courses, to get more options in other fields like arts, languages etc.

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What Our Global Youth and International Educators can do to Be Change agents for World Peace

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Abstract

After family early childhood socialization, our youth then face learning and experiences in “formal” education. Our proposal for educational research through social science expertise is to review and use pertinent past studies to engage in more research that lead into our stated topic and thesis. Youth and their long road ahead seek mastery of their individual needs, to attain freedom of social expression and to strive hard to see a more stable world – a world that can be sustained. Student aspirations especially include their desire to an education that is most meaningful to them – the students.

In the same vein, our progressive international educators have ideals of their own. The most insightful of them attest to maximize balance and all possible harmony in world affairs. So far, the best educators in all walks of life have been willing and able to revise and devise pedagogy and teaching strategies to coalesce these educators’ own vision of peaceful change, complementing that of our youth’s goals. The teamwork of these change agents must look, with keen vision, into the most probable and possible world disasters. Then we can start over as we educationally – socialize our billions on earth.

Only global youth and the experts in education can strategically unite in new beginnings. By definition, this solving of the “peace puzzle” can only be realized by establishing new foundations of peace and harmony, that even the most world powerful people and nations can be persuaded to save them and their own interests.

My ongoing research and analysis will encompass my independent social thought, education, and world experiences to complete my publication. My work will conclude with my advocated approach that illustrates the embodiment of my social theory that depicts our youth and educators to be these primary change agents for world peace.

Leadership value set evolution-role of empathy?

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Abstract

Organisational value set with an accented demonstration of empathy is becoming increasingly important – similarly to evolutionary step of HR function towards strategic business partner, the evolution of values framework with the empathy embedded in behavioural routines would become key for many industries and organisations sustainability and growth. This would as well require reformulation of leadership values and true demonstration beyond formal and superficial presence in organisational vocabulary towards genuine and authentic practice. The value of such transformation lays with profound opportunities in engagement, motivation and loyalty of the employees who would increasingly expect their employers to “earn the licence” to operate against internal and external value expectations. Such journey towards consistent and authentic values and empathy demonstration requires commitment across the organisations beyond short term trends or mainstream expectations – definition of modern employer should embed accountabilities across layers of the organisation supported by induction of trust in values and demonstration of such commitment in day to day operations. As every day practice is perhaps the best way to demonstrate consistency and desire to grow through repetitive rounds of learning. Keeping it at just formal level and with shallow authenticity would send strong message to employees on true nature of value set. Recent researches are confirming that the empathy is “in”, while its less clear and certain how to ensure its properly landing in the organisational culture and behaviour, from individual level to senior leadership. Our research is aiming to explore correlations between the empathy and sustainable organisational growth and performance – by analysing organisational practices across the range of industries we have detected trends and inclinations which are suggesting that for many direction is clear and benefits are tangible, while challenges are remaining in the domain of consistent deployment. The organisations are increasingly considering the empathy not only as a value or behaviour, but even more a key skill and lever for the organisational performance.

Earnings management and the financing-investment decision

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Abstract

Using a large sample of corporate external finance events for the period 1972 - 2018, we confirm that firms, which adjust their earnings upward prior to financing, have negative returns in the years that follow. The effect is stronger for stock issuers than for bond issuers. Our evidence is consistent with investors being overly optimistic at the time of the issue, while in the long run revaluing the firm down because high reported earnings are not justified by fundamentals. Further, we evaluate the effects of earnings management on issuing and investment decisions. We find that the firm's income-increasing strategies before security issues and investment are increasing in financial constraints. The firms that rank in the high financially constrained quintiles manipulate earnings more, facilitating so the firm's procurement of external finance used for investments that would not otherwise have occurred.

Keywords: Earnings management; Discretionary accruals; Equity issues; Debt issues; Financially constrained; Investment; Market efficiency; Long-run stock returns.

Computing Curricula and the Job market needs

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Abstract

Advances in information technology continue to grow at an increasingly fast pace. The study motivation is to shed light on the vital need of a new computing curriculum for Kuwait University being the largest contributor to the local job market in Kuwait. It is not only a supply and demand shortage: certifications, experience, and other qualities are issues we will be covering. Three departments corresponding to three of the main disciplines of computer technology: Computer Science, Computer Engineering and Information Science, yet employers are confused when hiring on the difference among the three programs, creating a job mismatch.

The study utilizes the internet as the primary data collection source. The job data is gathered from popular job websites such as bayt.com, linkedin.com, gulfjobs.com, gulftalent.com etc., to name a few which gives information on the recent job opening across Kuwait in private and government sectors. Then a comparative study on the gathered job requirements with the curricula offered at the University is conducted to analyse the preparedness of the graduates in connection with courses offered at the Kuwait University.

Keywords: Computer technology, Curricula, Job market,

Performance Predictive Analytics of Shared Services

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Abstract

Shared services have been widely used in many government, healthcare and other private business organizations as an alternative to outsourcing. For shared services, common services are standardized and consolidated across multiple organizations to reduce the operational cost and to increase information and knowledge sharing. For instance, IT support and human resource management are often the designated lines of business processes for shared services. Shared services are different from outsourcing. For shared services, a shared service provider is formed and governed by the partner organizations. For outsourcing, the service provider and the outsourced organization is defined by a bilateral contract. Two major advantages of shared services over outsourcing are long-term stable cost saving and knowledge sharing.

One important aspect of successful design and implementation of shared services is to ensure the quality of services delivered by a shared service provider to each individual partner organization. In this paper, we propose a performance predictive analytics framework to measure, monitor, predict and control the quality of services delivered by a shared service provider.

A Canonical Correlation Analysis of Shocking Advertising and Consumer Buying Decision Process of Unorthodox Medicine in Ghana

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Abstract

The current study purposed to investigate how shocking advertising influence the consumer of unorthodox medicine buying decision process. Using Likert Scaled questions, data was collected from unorthodox medicine buyers in the public bus transportation. Three Hundred respondents were purposely sampled so that cross-cultural and gender concerns are given particular attention in the study. The quantitative data was analyzed by Canonical Correlation Analysis. Results indicated that there is positive, direct and significant relationship between: 1) shock advertising and four decision making process, namely need recognition, information search, evaluation of alternative and post-purchase reaction. The actual purchase decision is not influenced by shock advertising. It is recommended that health regulators step up their work to check activities of unauthorized medicine sellers, since public health campaigns to ensure proper healthcare through use of prescribed medicine is highly influence by shocking advertising.

Female academic entrepreneurship in Action- A Literature Review

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Abstract

International entrepreneurs expand their market by exploring the opportunities that are available to them and pursue whether the opportunities are created, discovered or recognised. At the underlying phases of pioneering exercises, there seems, by all accounts, to be an agreement that the likelihood of the business fizzle is high, particularly poor choices and deficient assets can conceivably prompt an impeding impact on their new pursuit. Along these lines, the change from one stage into another will include a high level of misfortune, objective responsibility, expectation

and diligence which are altogether interconnected with the Psychology of an entrepreneur. Women are valued as highly efficient and highly competent social being where they can be entrusted to bring any changes in the society. Well determined women can develop themselves and also develop others in and around the society. However not all the women took an initiative to become where they are now either as working women, trainer or an entrepreneur? So, what causes them to achieve and release the hidden potential in them? Most women entrepreneurs who are successful were never intend to be a successful entrepreneur or never had a goal before they actually become an entrepreneur. So, what makes them or what allows them to be, the answer is necessity is the mother of invention, it is not by choice they came to this profession.

Digital Marketing Practices: Trends and Challenges for the Tourism Industry

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Abstract

The tourism industry has been facing a tremendous change in services due to the fast developing digital and smart applications in technology. The tourism industry is one of the first service industries to adapt and use information and communication technologies (ICT) for promoting its services (Sadr, 2013). In the early stage of the mainframe age in 1950s, flight booking systems went online from traditional manual booking system and in early 2000s, the advance of web-based technologies led to the emergence of e-Tourism (Kasahara, Iiyama, & Minoh, 2017). Nevertheless, the tourism services still experience very relevant changes (Baggio & Del Chiappa, 2014), due to the unprecedented development of ICTs in recent decades (Neuts, Romao, Nijkamp, & van Leeuwen, 2013). These changes and developments in technology has also created a new marketing era as “digital marketing”. Digital marketing has changed the traditional marketing mentality as well as consumer perception; consumers are accepted as “co-creators” and new terms as “crowdsourcing” has emerged. Digital marketing concentrates on the use of “data” coming from the customers or potential customers. Social media creates “data” coming from the potential customers. Services are promoted by the use of mobile applications and customers are active users of information. Information access is faster and possible through different digital channels. Augmented Reality, QR codes, artificial intelligence provides more and faster access to services and information. New technologies like near field communication (NFC), radio frequency identification (RFID) and unstructured supplementary service data (USSD) provide a faster and convenient form of payment for customers. Tourists acquire a more personal, faster and accurate

tourism experience starting from their reservation. There has been a great change in the “promotion” side of marketing as a result of social media and direct e-mailing. Tourism products differ and customers have a greater variety and more alternatives which they can compare and decide in seconds. This research puts forward the trends and challenges for digital marketing for the tourism industry. It gives examples from Turkey with some evidence from the practices. Digital marketing has been developing very fastly in Turkey and being adapted quite fastly, however the security problems should be carefully handled. Web sites, social media, touch screen, mobile apps are quite common whereas internet of things, artificial intelligence are more-rare. This research provides a broadened view over digital marketing in tourism in Turkey by giving information from the sector. The future trends for digital marketing point out that “data” and its management about customers, companies, services etc. will be the most important source.

The Effectiveness of Concept Attainment Model in Teaching Tenses (Grammar) to Second Language Learners

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The research study develops an insight to highlight the effectiveness of Concept Attainment Model as a teaching method when used in an ESL classroom to teach the concept of tenses. It focuses on bringing out the effectiveness of the Concept Attainment Model by making a comparison between the traditional method of teaching the concept of tenses. It further lays places importance on the trend of professional training for ESL teachers’ before they start teaching and the fact that the traditional methods of teaching tenses promote rote learning and neglect the area of concept formation. The population of the research report includes students of class 5, of a private school of Lahore. The research follows the experimental pre-test post-test design. The tool for collecting data for this research report included a pretest and a post test that was taken by both the groups i.e. experimental and control group. The conclusion of this research study suggests that Concept Attainment Model is an effective method of teaching tenses to ESL students as compared to the traditional method of teaching. The teachers should have an insight about new methods being used around the world for teaching language. Also, the students should be encouraged to focus on understanding the concept, rather than rote learning it.

The effects of ambidextrous operation on performance of Taiwanese firms in semiconductor subsidiary industries

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The present study aims to examine the effects of ambidextrous operation on performance of Taiwanese semiconductor firms. Semiconductor industry, which is highly capital- and technology-intensive, is one of the industries confronting rapid changing technology. Most semiconductor firms devote in radical and incremental technological changes in order to be sustained on the one hand. On the other hand, firms improve manufacturing process to reduce cost and increase net benefits because rapid changing technologies shorten the period for capital recovery. In short, it is more essential than others for semiconductor firms to build ambidextrous capacity for sustainability.

Taiwan's semiconductor industry has unique vertical-integrated upstream and downstream segments, including integrated circuit (IC) design and mask, wafer process, and packaging and testing. Semiconductor industry continues to invest resources in research and development (R&D), enabling it to lead global semiconductor technology to new heights of achievement. IC design is the most capital intensive and technical intensive among the IC segments. The production segment is also technology-intensive in the photolithography process to etch the desired electronic circuits into silicon wafers. Packaging and testing subindustry in which wafer is cut, assembled, and packaged for delivery after test for reliability, is relatively low value-added and labor-intensive. All firms in the semiconductor subindustries devote in ambidextrous operations, which invest not only in R&D seeking for persistent technology upgrading for the long run but also in marketing to increase profits in the short run. This paper examines the effects of ambidextrous operations on performance for the three IC industry segments. It measures exploration with the firm's capacity to create the market value (MV) of equity and measures exploitation with the firm's capacity to generate yearly net income (NI) from the employments of R&D and marketing resources simultaneously.

The difference-in-difference model studies intra-individual change in ambidextrous operation. The model consisted of 143 firms during 2013-2018, examined the relationship between the changes in exploration and exploitation with the change in firm value (Tobin's q). The results showed several findings: (1) semiconductor industry as a whole showed positive relationship between the

change of exploration and the change in firm value; (2) both design and mask segment and packaging and testing segment generated more value creation from the change in exploration than foundry; and (3) foundry performed better in the change of exploitation for value creation than other two segments.

Impact of HRM practices on organization commitment with mediating effect of organization justice

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Abstract

High level of organization commitment and maintaining positive organization justice will make organization more successful and operations will become more effective and efficient. Ultimately those will affect the organizations to achieve long term goals and objectives. Also, employee's standard of living will be enhanced to achieve their personal desires. However, human resources management practices can be very effective when developing organization commitment and organization justice. The objectives of the study are to find out the extend that human resource management practices can be helpful in order to improve organization as a whole while enhancing organization commitment and organization justice. The entire research study was based on four objectives. To conduct this research study the researcher selected one of the largest electrical manufacturers in Sri Lanka.

This research was a quantitative study and literature survey was conducted by exploring academic literature and inspection of web surveys. A pre-defined questionnaire was circulated among 108 sample population to increase the validity of the study. However, the sample population of 108 was taken from four different segments which covers the entire organization such as manufacturing staff, shared service employee and two separate sales teams whose responsibilities are diverse to match organizational goals and objectives. secondary data was obtained from literature surveys and company information. However, the statistical results of the study reveal that there is a significant impact on organization justice and organization commitment

over human resources management practices. Moreover, organizational justice played a role of a mediator between human resources management and organization commitment. Further the researchers have highlighted the key finding and recommendations of the study for the future improvements of the organization.

Keywords: Human Resource Management, Organizational Commitment, Organizational Justice

Lessons from Canada: Improving outcomes for racialized skilled immigrant women

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Abstract

Reported success of the Canadian Federal Skilled Worker Program (FSWP) to attract highly skilled immigrants for permanent residence in Canada, is seen as a win-win situation for both Canada and skilled immigrants. However, research indicates significant erosion of educational and employment strides for certain groups of skilled immigrants in Canada post-migration, which ironically are key qualifying criteria for FSWP. For racialized skilled immigrant women in particular, these erosions push them backward in a country such as Canada, that is yet to effectively confront systemic racism and anti-Black racism. The FSWP promises easier adjustment in Canadian society for skilled immigrants and the opportunity to make greater contributions to the Canadian economy. The results to date indicate missed opportunities to leverage the strides that racialized skilled immigrants made in countries prior to migration.

This paper focus on themes from my doctoral research that seeks to understand how skilled immigrant women from the Caribbean in Canada who are racialized, negotiate their social identities after migration. Discussion will provide insights into specific encounters that negatively impact the efforts of racialized skilled immigrant women's contribution to Canadian society and economy; system (s) of support that enabled their transition in Canada; and measures required to support easier adjustment for more meaningful contributions. The discussion is informed by Critical Race Theory that unmask issues of marginalization and discrimination in the everyday experiences of people of color. The paper concludes with key suggestions for Canada to better leverage the strides that racialized skilled immigrant women made prior to migration and lessons that countries such as the United States and Britain can learn from Canada to avoid similar pitfalls.

Determination of Gender Perceptions of Academicians "An Application in Vocational School of Health Services"

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Abstract

The gender equality and women's empowerment agenda are adopted by the Sustainable Development Goals (SDGs) and various UN and government commitments prior to SDGs. Although some progress has been made, projects aimed at creating sustainable gender equality have proven to be complex and have shown that planned change rarely leads to planned outcomes. It is not simple to state what constitutes gender equality in science. Many advocates fear that drawing attention to the complexity and subjectivity of the problem may undermine or halt progress and minimize the importance of real issues such as harassment and discrimination. Despite decades of research and intervention, female scientists have fewer opportunities and fewer definitions than their male counterparts, and women are less likely to assume leadership roles or to work in mathematics-intensive areas such as physics and engineering. The necessity of this study is the lack of studies on gender equality on the perception of academics in the literature. The study was conducted by face to face questionnaire method in two private universities in Istanbul and Ankara. Determining the gender equality perception levels of academicians working in the university will also contribute to the development of individual awareness level. The study will contribute greatly to the literature due to the lack of studies on this subject. Demographic data were obtained by questionnaire method, t-Test and One-Way ANOVA tests were performed. As a result of the study, it was found that there was a statistically significant difference between gender equality and gender and department variable. In addition, it was found that high level duties of female academicians were only for men and they did not agree with the idea that men should be given priority in business life.

The impact of technological innovation on the education sector in Southern Cameroon

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Abstract

Technological innovation has played a major role in transforming the education sector in the world. Based on previous findings this transformation has led to positive changes. From 2001 the president of Cameroon had a vision to become a knowledge economy. To achieve this the government decided to invest in innovating its education sector technologically. However, it is expected that this investment should be a global opportunity for Cameroon, but rather there is an educational gap between the English-speaking part and French speaking part of the country. Southern Cameroon (SC) makes up the English-speaking minority of Cameroon population, compared to its French counter parts its education sector is performing relatively low. The question therefore is what are the reasons for these disparities? If the government claims to have embraced 21st century competencies. This study seeks to find the answer to this question by critically analysing the impact of technological innovation on the education sector of SC. To assist the research a comparative analysis was carried out between the University of Buea in SC and the University of Yaoundé 1 in the French region. The study utilized the descriptive research design and primary source of data were collected through 10 in depth interviews and 250 questionnaires administered to the students and staff of the universities. A construct reliability test of Cronbach Alpha was conducted and a reliable result of .801 obtained. 200 questionnaires were collected and analysed using the SPSS Pearson correlation, correlation matrix, and multiple regression analysis. The major findings from the research reveal that education technology tools exist in both universities but the University of Yaoundé 1 has more advance teaching and learning tools. Also, there are regular training and retraining programs, ICT courses made available to help both students and staff gain expertise by practicing how to use the different types of education technology tools and most especially ICT software. This has caused the existing disparity, creating not only an education gap but also a digital divide gap between both regions. In conclusion technological innovation has an impact on the education sector of SC and the government have hinged majorly on developing policies and implementation strategies but is not been fully reflected in the Southern region. However, the research recommends that the government should focus on SC, developing and implementing technology base policies and practices in its education curriculum to suit the culture of the region.

Keywords: Technology innovation, education, digital divide, ICT

Growing Role of E-learning Auxiliaries in Indian Education: Perspective of Young Adults Pursuing Professional Courses

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Abstract

The horizons of learning have expanded acutely with the advent of technology, creating equal opportunity for all, especially in a developing nation like India. The need for professional development and the creation of more professionals has prompted the emergence of the e-learning industry, particularly in the last decade, with online portals, applications, courses, and support services. A need was felt to understand the utility, dependence, innovation, blending conventional classroom learning with E-options, and the scope of e-learning industry. Students from four select professional courses, namely, law, medicine, engineering and education (pupil teachers) were included in the sample (N=280, 70 each). A need-based questionnaire with 35 items was developed after going through three stage improvements based on feedback from the faculty, peer group and experts from the industry. The items measure inputs on each of the five areas stated (7 items each) and getting perspective of students as per their respective courses. The results revealed interesting trends. The common usage among different stream professional students found was for expanding domain knowledge, research, exchange of materials, online courses and career application. Students of Law primarily depended on active classroom learning; however, portals like Lexis Nexis and Live law were used for building up research. Medicine students extensively used services like Upto Date, Google Scholar, Wiki EM during self-study hours. The budding engineers were found availing certifications from online academies like Udemy and practicing skills. Pupil teachers used search engines for literature, thematic knowledge and state-sponsored e-education programs for masses. The study reveals enhanced and diversified learning in all streams and thus promises huge potential in e-learning industry with roles to be played by the state, educational institutions and commercial enterprises

Keywords: E-learning, young adults, innovation, professional courses, commercial enterprises.

Educational Tourism and Experiential Learning for a Holistic Development: Let's go again, they say

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Abstract

Education is evolving, diversifying rapidly and is becoming more accessible. The overall concept and methods of learning are transforming. The internet and social media have opened numerous avenues. The students have evolved expectations and aspirations. The need to supplement the current learning methodologies with educational tourism is seen as the way forward. The study was done with an objective to observe the inclination of male and female students towards non-traditional avenues of accumulating knowledge, on having access to experiential learning and on availing educational tourism for their holistic development. The sample included students (N=200) from 5 select schools across north India who had gone for cross-cultural educational tours. A self-prepared questionnaire was administered which included items on various parameters, namely, knowledge gained, broadening of perspective, cultural acceptance, personality enhancement, understanding of global educational standards, and development of human network at the global level. Qualitative compilation of responses revealed an increase in demand and preference towards immersion methods of learning. The parents and children were no more dependent on learning through books and internet only. The diverse opportunities through tourism were perceived to increase the knowledge base for students and also break numerous stereotypes regarding career paths. The parents, as well as the school programs, were encouraging to let the students explore the world beyond the comfort zone of visiting local agencies. The respondents who had taken such global educational tours revealed enhanced confidence and a pragmatic mindset towards the social systems, positive belief systems regarding their self, and held a better position on responsibilities as a citizen. Hands-on experiences, multicultural interactions, and global thinking were considered to shape the minds of the young generation for overall development. They perceived themselves as better functionaries as a team, more self-reliant on a daily basis, respectful towards different cultures, and free from superficial boundaries. They understood the world as a real and better place to live in.

Keywords: Experiential learning, educational tourism, holistic development, cross-cultural exposure, pragmatic mindset.

Assessment of the quality of water resources and possible effect on Human Population of Tiko Cameroon

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Abstract

In Cameroon, water has and will continue to be a major and very important constituent to human health and environment. This implies that in order to obtain good water quality for human consumption and a healthy ecosystem, chemical, bacteriological, and physiochemical, constituent of water sources needed to be evaluated. This study was carried out to examine the influence of quality of water sources to the human population of Tiko and its environs. Assessment was carried out based on chemical, physiochemical, and bacteriological properties of the various water sources within the study area which were identified to be well water, spring water, bore holes, tap water, stream water, and mineral water. The major ions present are Na⁺, K⁺Mg²⁺, Ca²⁺, Hco³⁻, So⁴²⁻, Cl⁻, and No³⁻ present in water were measured. The physical parameters of (PH, EC, DO, T0, and ORP) of the various water sources were measured insitu. Bacteriological analysis took into consideration the presences of coliform organism which indicated whether or not the water source contained were faecal contaminated. Credible information was also gotten from the local population with aid of discussion, questionnaire, which were administered to them and the district hospital provided data on the prevalence of water related disease from (2011-2019) for Tiko health area. Chemical analysis was achieved by using Ion chromatography method meanwhile the presumptive test method was used for bacteriological analysis. The physical properties were obtained with the use of PH meter, EC meter, DO meter and ORP meter which gave reading for the respective parameters. The geo-reference of the various location where gotten using GPS device. Results obtained show that water quality differ from one source to another as follows PH 6.63-8.11, EC 4.92-18.02ms/m, DO 3.14-7.01mg/l, ORP 56-220mv, Temperature 24.4-28.8 0c, Ca²⁺ 9.93-15.393mg/l, mg²⁺ 5.264-9.59mg/l, Na⁺ 7.894-13.7mg/l , k⁺ 3.954-9.985, Hco³⁻ 79.002-125.762, Cl⁻ 2.871-10.87mg/l, So⁴²⁻ 1.83-7.39mg, No³⁻ 2.551-17.069mg/l and the MPN of coliform bacteria per 100ml of water was range <3-<1100. The concentration of the investigated parameters in the tap water from (CDC and CDE), spring water (at Tiko-Douala road). LIST OF ACRONYMS AND ABBREVIATIONS CDE – Camerounais Des Eaux WHO - World Health Organization CDC- Cameroon Development Cooperation MPN- Most Probable Number EC Electrical conductivity ORP- Oxygen Reduction Potential EPA - Environmental Protection Agency DO - Dissolve Oxygen MCL- Maximum Contaminant Level MDG- Millennium Development Goals. DSLB- Double Strength Lactose Broth SSLB - Single Strength Lactose Broth EU- European Union DC- Developing countries

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