



Sustainable development in outcome-based education among university postgraduate students

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Abstract

Purpose – This paper sets out to discuss the commonalities that can be found in learning outcomes (LOs) for education for sustainable development in the context of the Tbilisi and Barcelona declarations. The commonalities include systemic or holistic thinking, the integration of different Perspectives, skills such as critical thinking, change agent abilities and communication, and finally different attitudes and values. Design/methodology/approach – An analysis of LOs that are proposed in the Tbilisi and Barcelona declarations is conducted, showing specific issues for the commonalities presented. Examples of LOs from Instituto Tecnológico de Estudios Superiores de Monterrey (ITESM) in Mexico, as well as various associations from the USA is shown. A brief discussion is done on the means to achieve these LOs and learning evaluation. Findings – In the example sets of LOs shown, the commonalities presented in the paper's first section appear in the LOs proposed by the institutions. Based on current knowledge and perception, sustainability is properly addressed in the examples.

Keywords: Outcome-based education, Sustainable development, University Post Graduate Students, Higher education.

Practical implications – The paper can be used to foster a wider discussion and analysis of LOs for sustainability education, also further work on teachers' capacity building for sustainability, as well as the assessment needed for future professionals in higher education institutions. Originality/value – The paper presents the onset of discussing and comparing commonalities among higher education institutions regarding sustainability LOs. Keywords Sustainable development, Education, Agreements Paper type Conceptual paper

Background:

This paper sets out to discuss about the Sustainable development in outcome-based education among university postgraduate students. In recent days, everybody discusses practical objectives, which likewise incorporate advanced education objectives. The advanced education giving proficient information helps in creating set of abilities so that fitting employability abilities can be created in the understudies. This will

additionally engage students as equipped alumni who can make due despite everything and add to the financial advancement of the world. **Methods:** The investigator adopted a descriptive survey method using a sample of 1110 university post-graduate students..

Sampling technique:

The current study made use of a stratified sampling approach. **Scale:** In the present study Outcome Based Education Scale (OBE) has been constructed and standardized among 30 university post-graduate students. This scale consists of 30 statements. **Results:.** Below 22 age and 26 years above age of post graduate students do differ in the dimension general awareness about OBE of outcome based education. Below 22 age and 25 years age of post graduate students do differ in the dimension teaching learning process of outcome based education. While comparing the mean scores of I year (Mean=23.00, 22.95, 23.97, 23.40, 23.13, 93.05) and II year postgraduate students (Mean=23.37, 23.20, 23.50, 22.99, 23.40,

93.47), the II year postgraduate students are better than the I year postgraduate students in their general awareness about OBE, commitment towards outcome-based

Introduction



Unlike the conventional training device, that's greater centered on what instructors educate as opposed to what their scholars learn, Outcome-primarily based totally training (OBE) locations the pupil on the middle of the instructional device and specializes in what the pupil is predicted to gain on the give up in their route as opposed to how they finished it. Outcome-primarily based totally training is an academic approach wherein curriculum choices are focused at the results that scholars must show with the aid of using the belief of the route-expert knowledge, capabilities, abilities, values, and attitudes as opposed to the instructional process. It emphasizes the significance of understanding your eventual vacation spot earlier than embarking to your journey. Tertiary training need to equip graduates with each expert knowledge/capabilities and all-round developments so as for them to fulfill the numerous however worldwide desires of 21st-century society. Today better training institutes in numerous international locations are emphasizing on non-stop great development with the aid of using reforming their curriculum, plan and determine gaining knowledge of results in any respect levels, acquire proof of gaining knowledge of and examine results accomplishment the usage of quite a few evaluation techniques, to assure that the gaining knowledge of results are honestly met.

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education, teaching learning process, role of teacher, assessment and total score of outcome-based education

OBE different from Traditional Education System

Change is ineluctable in moment's dynamic world, and that also demands the education system to modernize and acclimatize its approaches and parameters in all spheres. OBE is a pedagogical model in which class, pedagogy, and assessment processes are reconstructed to reflect the attainment of high- order literacy rather than the accumulate on of course credits. Unlike traditional education, which emphasizes what's tutored, OBE emphasizes what's learned. The ultimate is a pupil- centered approach that includes practical literacy gests to enhance the knowledge, capacities, and traits that scholars get at the end of a program or course. Traditional education is grounded on a rigid class and standardized practices, in which scholars gather under one roof at a specific time to be instructed by a schoolteacher. Learners interact with peers or ask faculty members questions once a lecture is over. This suggests that the effectiveness of the educational system is substantially determined by the schoolteacher's efficacy and classmates ' knowledge base. On the other hand, OBE is a system of education grounded on specific issues. It focuses on the skill sets that scholars will need when they finish their education. Conditioning in and out of the classroom are planned to help scholars in achieving these pretensions.

Sustainable development

The concept of sustainable development is not a mere concept leading to awareness or knowledge, but it is an act that requires more participation in the modern world. All the developed, developing and under-developed countries need to participate in sustainable development practices, so that the whole world becomes a better place to live for the present as well as for the future generations

to come. The depletion of nature and natural resources can be traced back to the times when man started to live in caves, lead a nomadic life and settled for practicing agriculture. The depletion of these resources reached its zenith when the basic needs of man has given way for his greed, whereby, he started to exploit the environment by cutting trees, destroying forests, destroying land, constructing buildings, depleting of non-renewable resources, using various modes of transportation, development in technology etc. It is from this realization that 'Education for sustainable development' (ESD) emerged with an immediate urge to preserve and conserve our nature and natural resources The concept of sustainable development is not a mere concept leading to awareness or knowledge, but it is an act that requires more participation in the modern world. All the developed, developing and under-developed countries need to participate in sustainable development practices, so that the whole world becomes a better place to live for the present as well as for the future generations to come. The depletion of nature and natural resources can be traced back to the times when man started to live in caves, lead a nomadic life and settled for practicing agriculture. The depletion of these resources reached its zenith when the basic needs of man has given way for his greed, whereby, he started to exploit the environment by cutting trees, destroying forests, destroying land, constructing buildings, depleting of non-renewable resources, using various modes of transportation, development in technology etc. It is from this realization that 'Education for sustainable development' (ESD) emerged with an immediate urge to preserve and conserve our nature and natural resources The concept of sustainable development is not a mere concept leading to awareness or knowledge, but it is an act that requires more participation in the modern world. All the developed, developing and under-developed countries need to participate in sustainable development practices, so that the whole world becomes a better place to live for the present as well as for the future generations

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provide food and resources, safe drinking water, and clean air for its citizens. Thus, sustainability to be a paradigm for thinking about a future in which environmental, societal, and economic considerations are balanced in the pursuit of development and improved quality of life. If you consider the three components to be overlapping circles of the same size, the area of overlap in the center is human well-being. As the environment, society, and economy become more aligned, the area of overlap increases, and so does human well-being. The human rights community.



Objectives

1. To find out the significant difference in perception of outcome-based education (OBE) and its dimensions of postgraduate students with regards to age .
2. To find out the significant difference between I and II year postgraduate students in Outcome Based Education.
3. To find out the significant difference among type of family of university

TABLE-5.4

Significant difference in perception of outcome-based education and its dimensions of postgraduate students with regards to age

| Dimensions | | Sum of Squares | df | Mean Square | F | P | Sig. |
|------------|----------------|----------------|------|-------------|-------|-------|------|
| GAA OBE | Between Groups | 194.793 | 4 | 48.698 | 4.546 | 0.001 | S |
| | Within Groups | 11869.937 | 1105 | 10.713 | | | |
| | Total | 12064.730 | 1109 | | | | |
| CT OBE | Between Groups | 95.712 | 4 | 23.928 | 1.806 | 0.125 | NS |
| | Within Groups | 14676.916 | 1105 | 13.246 | | | |
| | Total | 14772.627 | 1109 | | | | |
| TLP OBE | Between Groups | 198.932 | 4 | 49.733 | 3.819 | 0.004 | S |
| | Within Groups | 14430.369 | 1105 | 13.024 | | | |
| | Total | 14629.301 | 1109 | | | | |
| ROT OBE | Between Groups | 112.948 | 4 | 28.237 | 2.057 | 0.084 | NS |
| | Within Groups | 15210.623 | 1105 | 13.728 | | | |
| | Total | 15323.571 | 1109 | | | | |
| AOBE | Between Groups | 58.373 | 4 | 14.593 | 1.084 | 0.363 | NS |

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postgraduate students in Outcome Based Education.

Hypothesis

1. There is no significant difference in perception of outcome-based education (OBE) and its dimensions of postgraduate students with regards to age.
2. There is no significant difference between in perception of outcome-based education (OBE) and its dimensions of postgraduate students with regards to year of study .
3. There is no significant difference in the perception of outcome-based education (OBE) and its dimensions of postgraduate students with regards to types of family.

Method

The investigator adopted a descriptive survey method for this study .

Sampling Technique

The current study made use of a stratified sampling approach

Sample

1110 university post-graduate students were taken as sample for this study.

Statistical techniques

Inferential analysis(t-test and f-test) were used for this study.

Analysis and Interpretation

Hypothesis 1

There is no significant difference in perception of outcome-based education (OBE) and its dimensions of postgraduate students with regards to age.

| | | | | | | | |
|--------------|----------------|------------|------|---------|-------|-------|----|
| | Within Groups | 14913.783 | 1105 | 13.460 | | | |
| | Total | 14972.156 | 1109 | | | | |
| OBE TOTAL | Between Groups | 640.146 | 4 | 160.037 | 1.156 | 0.329 | NS |
| | Within Groups | 153378.292 | 1105 | 138.428 | | | |
| | Total | 154018.438 | 1109 | | | | |

GAA- General Awareness About OBE, CT- Commitment Towards OBE implementation, TLP - Teaching Learning Process, ROT- role of teacher, and A- assessment

From the results of the above table, it is found that the calculated P values (0.125, 0.084, 0.363, 0.329, $P > 0.05$) are greater than 0.05 and are not significant 5% level. Hence, the formulated null hypothesis is accepted. But the calculated P values (0.001, 0.004 $P < 0.05$) are less than 0.05 and are significant at 5% level. Hence, the formulated null hypothesis is not accepted.

Conclusion

Post Hoc Test

Table – 5.4 [a]

| Dimensions | (I) Age | (J) Age | Mean Difference (I-J) | Std. Error | Sig. |
|-----------------|-----------------|----------------|-----------------------|------------|--------|
| GAAOBE Total | below 22 Age | 23 years | -.468 | .276 | .578 |
| | | 24 Years | -.812 | .327 | .187 |
| | | 25 years | -.535 | .318 | .588 |
| | | 26 years above | -1.383 | .337 | .002** |
| | 23 years | 24 Years | -.344 | .303 | .863 |
| | | 25 years | -.067 | .294 | 1.000 |
| | | 26 years above | -.915 | .313 | .075 |
| | 24 Years | 25 years | .277 | .342 | .957 |
| | | 26 years above | -.571 | .359 | .640 |
| | 25 years | 26 years above | -.848 | .352 | .214 |
| TLPOBE Total | below 22 Age | 23 years | .330 | .304 | .881 |
| | | 24 Years | 1.071 | .360 | .066 |
| | | 25 years | 1.121 | .351 | .038** |
| | | 26 years above | .612 | .371 | .607 |
| | 23 years | 24 Years | .741 | .334 | .295 |
| | | 25 years | .791 | .324 | .202 |
| | | 26 years above | .281 | .345 | .956 |
| | 24 Years | 25 years | .050 | .377 | 1.000 |
| | | 26 years above | -.460 | .396 | .853 |
| | 25 years | 26 years above | -.510 | .388 | .785 |

From the above table it is found that

1. Below 22 age and 26 years above age of post graduate students do differ in the dimension general awareness about OBE of outcome based education.
2. Below 22 age and 25 years age of post graduate students do differ in the

dimension teaching learning process of outcome based education

Hypothesis 2

There is no significant difference between in perception of outcome-based education (OBE) and its dimensions of postgraduate students with regards to year of study.

TABLE-5.8

Significant difference in perception of outcome-based education and its dimensions of postgraduate students with regards to year of study

| Dimensions | Year of Study | N | Mean | S.D. | t | P | Sig. |
|------------|---------------|-----|-------|--------|-------|-------|------|
| GAA OBE | I year | 408 | 23.00 | 3.289 | 1.787 | 0.938 | NS |
| | II Year | 702 | 23.37 | 3.292 | | | |
| CT OBE | I year | 408 | 22.95 | 3.486 | 1.146 | 0.924 | NS |
| | II Year | 702 | 23.20 | 3.734 | | | |
| TLP OBE | I year | 408 | 23.97 | 3.507 | 2.116 | 0.037 | S |
| | II Year | 702 | 23.50 | 3.687 | | | |
| ROT OBE | I year | 408 | 23.40 | 3.642 | 1.817 | 0.896 | NS |
| | II Year | 702 | 22.99 | 3.747 | | | |
| A OBE | I year | 408 | 23.13 | 3.817 | 1.163 | 0.129 | NS |
| | II Year | 702 | 23.40 | 3.579 | | | |
| OBE TOTAL | I year | 408 | 93.05 | 11.760 | 1.217 | 1.525 | NS |
| | II Year | 702 | 93.47 | 11.779 | | | |

GAA- General Awareness About OBE, CT- Commitment Towards OBE implementation, TLP - Teaching Learning Process, ROT- role of teacher, and A- assessment

From the results of the above table, it is found that the calculated P values (0.938, 0.924, 0.896, 0.129, 1.525 $P > 0.05$) are greater than 0.05 and are not significant 5% level. Hence, the formulated null hypothesis is accepted. But the calculated P value (0.037 $P < 0.05$) is less than 0.05 and it is significant 5% level. Hence, the formulated null hypothesis is not accepted. While comparing the mean scores of I year (Mean=23.00, 22.95, 23.97, 23.40, 23.13, 93.05) and II year postgraduate students (Mean=23.37, 23.20, 23.50, 22.99, 23.40, 93.47), the II year postgraduate students are better than the I year postgraduate students in their general awareness about OBE, commitment towards outcome-based education, teaching learning

process, role of teacher, assessment and total score of outcome-based education.

Conclusion

1. There is no significant difference in the perception of outcome-based education (OBE) and its dimensions general awareness about OBE, commitment towards outcome-based education, role of teacher, assessment and total score of perception of outcome-based education among postgraduate students with regards to year of study.
2. There is a significant difference in the perception of outcome-based education (OBE) and its dimensions teaching learning process among postgraduate students with regards to year of study.

Hypothesis 3

There is no significant difference in the perception of outcome-based education (OBE) and its dimensions of postgraduate students with regards to type of family.

TABLE-5.12

Significant difference in perception of outcome-based education and its dimensions of postgraduate students with regards to types of family

| Dimensions | Type of Family | N | Mean | S.D. | t | P | Sig. |
|------------|----------------|-----|-------|-------|-------|-------|------|
| GAA OBE | Joint Family | 398 | 23.09 | 3.423 | 1.094 | 0.189 | NS |
| | Nuclear Family | 712 | 23.31 | 3.219 | | | |
| CT OBE | Joint Family | 398 | 23.11 | 3.834 | 0.023 | 0.104 | NS |
| | Nuclear Family | 712 | 23.11 | 3.538 | | | |
| TLP OBE | Joint Family | 398 | 23.48 | 3.689 | 1.275 | 0.890 | NS |
| | Nuclear Family | 712 | 23.78 | 3.591 | | | |
| ROT OBE | Joint Family | 398 | 23.22 | 3.675 | 0.516 | 0.952 | NS |
| | Nuclear Family | 712 | 23.10 | 3.735 | | | |
| A OBE | Joint Family | 398 | 23.21 | 3.866 | 0.566 | 0.199 | NS |
| | Nuclear Family | 712 | 23.34 | 3.557 | | | |

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| | | | | | | | |
|-----------|----------------|-----|-------|--------|-------|-------|----|
| OBE TOTAL | Joint Family | 398 | 92.89 | 12.720 | 0.850 | 0.057 | NS |
| | Nuclear Family | 712 | 93.54 | 11.207 | | | |

GAA- General Awareness About OBE, CT- Commitment Towards OBE implementation, TLP - Teaching Learning Process, ROT- role of teacher, and A- assessment

From the results of the above table, it is found that the calculated P values (0.189, 0.104, 0.890, 0.952, 0.199, 0.057 $P > 0.05$) are greater than 0.05 and are not significant 5% level. Hence, the formulated null hypothesis is accepted. While comparing the mean scores of joint family (Mean=23.09, 23.11, 23.48, 23.22, 23.21, 92.89) and nuclear family postgraduate students (Mean=23.31, 23.11, 23.78, 23.10, 23.34, 93.54), the nuclear family of postgraduate students are better than the joint family of postgraduate students in their general awareness about OBE, commitment towards outcome-based education, teaching learning process, role of teacher, assessment and total score of perception of outcome-based education.

Conclusion

There is no significant difference in the perception of outcome-based education (OBE) and its dimensions general awareness about OBE, commitment towards outcome-based education, teaching learning process, role of teacher, assessment and total score of outcome-based education among postgraduate students with regards to types of family

Findings of the study

Age

1. There is no significant difference in the perception of outcome-based education (OBE) and its dimensions commitment towards outcome-based education, role of teacher, assessment and total score of perception of outcome-based education among postgraduate students with regards to age.
2. There is significant difference in the perception of outcome-based education (OBE) and its dimensions general awareness about OBE and teaching learning process among postgraduate students with regards to age.

Year of the study

1. There is no significant difference in the perception of outcome-based education

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(OBE) and its dimensions general awareness about OBE, commitment towards outcome-based education, role of teacher, assessment and total score of perception of outcome-based education among postgraduate students with regards to year of study.

2. There is a significant difference in the perception of outcome-based education (OBE) and its dimensions teaching learning process among postgraduate students with regards to year of study.

Type of family

There is no significant difference in the perception of outcome-based education (OBE) and its dimensions general awareness about OBE, commitment towards outcome-based education, teaching learning process, role of teacher, assessment and total score of outcome-based education among postgraduate students with regards to type of family .

Educational implications

1. Helping students to attain excessive requirements is related very carefully to the concept that a successful in studying promotes extra success in gaining knowledge.
2. Be embedded within the curriculum in an interdisciplinary and holistic way, bearing in mind an entire-group technique to coverage making.
3. Percentage the values and principles that underpin sustainable improvement.
4. Promote essential thinking, trouble solving and movement, all of which increase self belief in addressing the challenges to sustainable improvement.
5. Hire an expansion of educational techniques, which include literature, art, drama and debate to demonstrate the approaches
6. Permit rookies to take part in decision-making at the design and content material of tutorial programmes.

Conclusion

The major findings of the study are there is no significant difference in the perception of outcome-based education (OBE) and its dimensions commitment towards outcome-based education, role of teacher, assessment

and total score of perception of outcome-based education among postgraduate students with regards to age. There is significant difference in the perception of outcome-based education (OBE) and its dimensions general awareness about OBE and teaching learning process among postgraduate students with regards to age. There is no significant difference in the perception of outcome-based education (OBE) and its dimensions general awareness about OBE, commitment towards outcome-based education, role of teacher, assessment and total score of perception of outcome-based education among postgraduate students with regards to year of study. There is a significant difference in the perception of outcome-based education (OBE) and its dimensions teaching learning process among postgraduate students with regards to year of study. There is no significant difference in the perception of outcome-based education (OBE) and its dimensions general awareness about OBE, commitment towards outcome-based education, teaching learning process, role of teacher, assessment and total score of outcome-based education among postgraduate students with regards to type of family. Hence this study reveals that there should be sustainable development of outcome based education in higher education institutions to promote the development of the knowledge, skills, understanding, values and actions to face global challenges in future world.

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