ORGANIZATIONAL PERFORMANCE OF HIGHER EDUCATION INSTITUTIONS IN PANGASINAN

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Abstract

This study was conducted to determine the profile and organizational performance of higher education institutions (HEIs) in Pangasinan along the aspects of quality and excellence, relevance and responsiveness, access and equity and efficiency and effectiveness. This study made use of the descriptive research design. The research instrument was answered by 30 administrators, 711 faculty, 469 non-teaching staff and 1,689 students. Statistical tools such as means, frequency counts, percentages, t-test for independent samples and Pearson Product Moment Correlation were used in analyzing the data. Findings shows that majority of the Higher Education Institutions (HEIs) in Pangasinan were classified as small, young and operating on a small internal operating budget. The level of performance of the HEIs administrators, faculty, non-teaching staff and students with respect to all the indicators ranged from “moderately high” to “high”. The performance of HEIs with respect to quality and excellence, relevance and responsiveness, access and equity was “moderately high” but “low” along efficiency and effectiveness. The administrators, faculty, non-teaching staff, and students differ in their performance along quality and excellence, relevance and responsiveness, access and equity and efficiency and effectiveness. The years of existence of the HEIs is related to the performance of the administrators, faculty and non-teaching staff. Based on the findings, it is concluded that the Higher Education Institutions in Pangasinan are performing and attaining the goals/indicators of quality and excellence, relevance and responsiveness, access and equity, and efficiently and effectively at a high level, despite their small internal operating budget and being young in this endeavor. However, there is still room for improving the performance to a higher level along those indicators. Years of existence of the HEIs as an institution is related with the performance of HEIs. It is recommended that the HEIs must continuously review and enrich their curricular programs, implement a purpose-driven staff and faculty development program, and strengthened the Research and Extension activities by way of the infusion of additional budget and incentives for the faculty members.

Keywords: Organization, Performance Indicators, Higher Education Institutions, CHED Goals

1. Background of the Study

Organizations are created to provide goods and services. In the more complex society, however, it implies structuring and integrating activity which consists of human resources who work with different behavioural styles, cope with the new technology, coordinate to work with superiors, peers and subordinates in order to achieve organizational goals and to have an effective and efficient accomplishments (Franco, 1988.) In a formal organization, it is commonly viewed as adaptive system than continually adjust to external and internal forces in order to survive. The adaptive capability of the organization depends in large measure on their ability to scan and their relevant environment to continually adjust their major activities and to gauge their performance against feasible and targeted objectives (Poblador, 1988).
Performance measures are typically classified as either absolute or relative---It is absolute when performance is assessed with respect to some previously defined or ideal feature and relative when compared to a standard performance or to a comparable aspect of another institution performance (Brewer, 1983). Higher education institution as an organization for this matter exists for a mission. Its structures, processes and strategies are designed for the successful and realization of the mission, goals and objectives to the extent of which determines its effectiveness and efficiency. Hence, researchers have given birth to a number of theories for effective management of organizations. With this however, problems and concerns about organizational performance remain.

2. Theoretical Foundation of the Study

Organization is viewed as a “system” which consists of parts that are united by a system relationship for the attainment of specific objectives which are dynamically interconnected and are continuously interacting that include the inputs, process, the environment in which it operates, and feedback loops. A change in any part or element of the system will affect other parts of the system, hence, the coordination of human efforts and material resources are needed to produce desired results in the organization. (Halachmi, 1992).

As a social system, the organization has a number of subsystems, one of which is management. As an organization component, the managerial subsystem determines the overall objectives and specific objectives, sets standards and selects performance measures and focuses on the total plan and seeks its implementation in order to achieve effective utilization of human and material resources for the accomplishment of the objectives. Other subsystems are as follows: 1) Goal subsystem which determines the nature of activities; 2) Technical subsystem that produces goods and services; 3) Commercial subsystem that is in charge of purchases and other transactions; 4) Financial subsystem that attends to the procurement and disbursement of funds; 5) Security subsystem that protects the human and non-human resources; 7) Psychosocial subsystem which refers to the dynamics of interpersonal and group interactions.

3. Materials and Methods

This research study employed the descriptive research design. According to Adanza (1995) descriptive research is designed for the investigation to gather information about the present condition. The main objective of the study was to describe the nature of a situation as it exists at the time of the study and to explore the causes of particular phenomena. The unit of analysis was the higher education institutions in Pangasinan. The HEIs were grouped per cluster consisting of 6, 17 and 7 HEIs for the western, central and eastern Pangasinan, respectively. The respondents of this study were the administrators, faculty, non-teaching staff and students. Out of the forty four institutions in Pangasinan as 2002, only 30 were considered as samples. The institutions were categorized as small and big based on the total number of faculty and staff. Institutions which number of employees were below the mean, were considered as small while those above the mean were classified as big. To determine the sample institutions per cluster, the stratified random sampling with proportional allocation was used. With respect to the sample respondents per institution, all the administrators were taken as sample, thus complete enumeration was used. For the faculty, non-teaching staff and students, the Slovin’s formula was used in the computation of the sample size. On the perceived performance of administrators, faculty, non-teaching staff and students, the statements/indicators of quality and excellence, relevance and responsiveness, access and equity and efficiency and effectiveness appropriated for each type of respondents were formulated.
Table 1: Profile of the Institution

<table>
<thead>
<tr>
<th>Profile</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean=95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-below the mean</td>
<td>22</td>
<td>73.30</td>
</tr>
<tr>
<td>Big-above the mean</td>
<td>8</td>
<td>26.70</td>
</tr>
<tr>
<td><strong>Years of Existence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean=28.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-below the mean</td>
<td>17</td>
<td>56.67</td>
</tr>
<tr>
<td>Big-above the mean</td>
<td>13</td>
<td>43.33</td>
</tr>
<tr>
<td><strong>Current Internal Operating Budget</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean=PHP 25,423,444.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-below the mean</td>
<td>21</td>
<td>70.00</td>
</tr>
<tr>
<td>Big-above the mean</td>
<td>9</td>
<td>30.00</td>
</tr>
<tr>
<td><strong>Personal Services (PS)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean=PHP12,774,077.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-below the mean</td>
<td>23</td>
<td>76.70</td>
</tr>
<tr>
<td>Big-above the mean</td>
<td>7</td>
<td>23.30</td>
</tr>
<tr>
<td><strong>Maintenance &amp; Other Operating Expenses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean=PHP7,600,700.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-below the mean</td>
<td>24</td>
<td>80.00</td>
</tr>
<tr>
<td>Big-above the mean</td>
<td>6</td>
<td>20.00</td>
</tr>
<tr>
<td><strong>Capital Outlay</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean=PHP5,048,666.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No capital outlay</td>
<td>5</td>
<td>16.70</td>
</tr>
<tr>
<td>Small-below the mean</td>
<td>17</td>
<td>56.70</td>
</tr>
<tr>
<td>Big-above the mean</td>
<td>8</td>
<td>26.67</td>
</tr>
</tbody>
</table>

Figure 1. Conceptual Framework of the Study

Table 2 in the following diagram shows the overall performance of HEIs along the four indicators. With respect to quality and excellence, the HEIs have recognized programs and faculty who possess advanced degrees but not performing well along accreditation and publication of research outputs. Moreover, along relevance and responsiveness, most of them have considerable number of graduates and integrated ICT subjects in their curricular programs.
However, majority of them do not have research and extension projects. Along access and equity, they have accepted a quite number of enrollees and had provided scholarship but have not provided financial and loan assistance as well as the study now pay later plan. On the other hand, they have enriched their curricular offerings but have not provided funding to their research and extension projects. Considering efficiency and effectiveness, the HEIs have not developed new curriculum with limited number of R & D

Table 2: Performance of HEIs along the Four Indicators

<table>
<thead>
<tr>
<th>CHED GOALS AND INDICATORS</th>
<th>LEVEL OF PERFORMANCE</th>
<th>OVER ALL HEIs Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Quality Excellence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognized Curricular programs</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Accreditation</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Faculty Members with Advance degrees</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Percentage of passers in Licensure Examination</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Number of Faculty Availed on Scholarship Program</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Publication of Research and Development Outputs</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Relevance and Responsiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduates</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Integration of ICT subjects</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Number of R &amp; D Programs/Projects</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Number of Extension Programs undertaken</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Access and Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Enrolment</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Number of students availed on Scholarship Program</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Financial and Loan Assistance</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Study Now Pay Later</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Efficiency and Effectiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Curriculum Developed</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Enriched Curriculum</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Number of R &amp; D projects with funding</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Number of Extension projects with funding</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Number of Linkages established</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

The Level of Performance of the Administrators, Faculty, Non-Teaching Staff and Students with respect to all the indicators was “high”. In particular, along quality and excellence, the overall mean was 4.03; 4.17 for relevance and responsiveness; 4.14 for access and equity and 4.20 for efficiency and effectiveness. In the case of the faculty members, they also performed “high” with respect to quality and excellence, relevance and responsiveness and access and equity as shown by the mean of 3.74, 3.93, 3.95 respectively while they have moderate performance along efficiency and effectiveness. For non-teaching staff, they have also “high” performance in attaining quality and excellence (4.07), access and equity (3.55), efficiency and effectiveness (3.94), but moderately high performance on relevance and responsiveness.
Table 3: Performance of the Administrators, Faculty, Non-Teaching Staff, and Students along the four Indicators

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality &amp; Excellence</td>
<td>4.03</td>
<td>3.74</td>
<td>4.07</td>
<td>4.02</td>
</tr>
<tr>
<td>Rel. &amp; Responsiveness</td>
<td>4.17</td>
<td>3.93</td>
<td>3.20</td>
<td>MH 3.54</td>
</tr>
<tr>
<td>Access &amp; Equity</td>
<td>4.14</td>
<td>3.95</td>
<td>3.55</td>
<td>H 2.85</td>
</tr>
<tr>
<td>Efficiency</td>
<td>4.20</td>
<td>3.34</td>
<td>3.94</td>
<td>H 4.12</td>
</tr>
</tbody>
</table>

The t-test for independent samples revealed that there was a significant difference between the performance of the administrators and faculty along quality and excellence; access and equity and efficiency and effectiveness as shown by the t-values of 2.199, 6.091 and 2.394 and the significance of .035, .000 and .023 respectively.

Table 4: Significant differences in the performance of the Administrators, Faculty, Non-Teaching Staff and Students

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Compared Categories</th>
<th>Mean</th>
<th>Mean Diff</th>
<th>t-value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality and Excellence</td>
<td>Administrator vs</td>
<td>4.0300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Faculty</td>
<td>3.7423</td>
<td>2.877</td>
<td>2.199*</td>
<td>.035</td>
</tr>
<tr>
<td></td>
<td>Non-teaching Staff</td>
<td>1.0716</td>
<td>-.0416</td>
<td>-3.17</td>
<td>.754</td>
</tr>
<tr>
<td></td>
<td>Students</td>
<td>4.0184</td>
<td>.0116</td>
<td>.090</td>
<td>.929</td>
</tr>
<tr>
<td></td>
<td>Faculty vs</td>
<td>3.7423</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Teaching Staff</td>
<td>4.0716</td>
<td>-.3293</td>
<td>-8.942**</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Students</td>
<td>4.0184</td>
<td>-.2761</td>
<td>-9.691**</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Non-Teaching Staff vs Students</td>
<td>4.0184</td>
<td>.0532</td>
<td>1.689</td>
<td>.092</td>
</tr>
</tbody>
</table>

Relevance & Responsiveness

| Administrators            | 4.1733               |        |           |         |      |
|                          | Faculty              | 3.9371 | 2.362     | 1.644   | .110 |
|                          | Non-teaching Staff   | 3.1919 | .9814     | 6.594** | .000 |
|                          | Students             | 3.5370 | .6363     | 4.453** | .000 |
|                          | Faculty vs           | 3.9371 |           |         |      |
|                          | Non-Teaching Staff   | 3.1919 | .7452     | 14.198**| .000 |
|                          | Students             | 3.5370 | .4001     | 12.513**| .000 |
|                          | Non-Teaching Staff vs Students | 3.5370 | -3.451 | -6.862** | .000 |

Access and Equity

| Administrator vs          | 4.1467               |        |           |         |      |
|                          | Faculty              | 3.3395 | .8071     | 6.091** | .000 |
|                          | Non-teaching Staff   | 3.5458 | .6008     | 4.509** | .000 |
|                          | Students             | 2.8500 | 1.2967    | 9.963** | .000 |
|                          | Faculty vs           | 3.3395 |           |         |      |
|                          | Non-Teaching Staff   | 3.5458 | -.2063    | -3.884**| .000 |
|                          | Students             | 2.8500 | .4896     | 10.929**| .000 |
|                          | Non-Teaching Staff vs Students | 3.5458 | .6959 | 14.846** | .000 |

Efficiency & Effectiveness

| Administrator vs          | 4.3000               |        |           |         |      |
|                          | Faculty              | 3.9481 | .3519     | 2.394*  | .023 |
|                          | Non-teaching Staff   | 3.9380 | .3620     | 2.445*  | .020 |
|                          | Students             | 4.1360 | .1640     | 1.124   | .270 |
|                          | Faculty vs           | 3.9481 |           |         |      |
|                          | Non-Teaching Staff   | 3.9380 | .0101     | .265    | .791 |
|                          | Students             | 4.1360 | -.1879    | -6.557**| .000 |
|                          | Non-Teaching Staff vs Students | 3.9380 | -.1980 | -5.869** | .000 |

*significant at .05 level  ***significant at .01 level
The profile of the HEIs as to size and budget were not significantly related to all the indicators of performance of administrator, faculty, non-teaching staff and students as shown in the computed r-values and their levels of significance of .296; sig. = -.112 for quality and excellence; 2.74; sig. = .143 for relevance and responsiveness. 272; sig. = .146 for access and equity, and .268; sig. = .152 for efficiency and effectiveness. The number of years of existence was related to the performance of faculty along relevance and responsiveness (-.513; sig. = .004); access and equity (-.501, sig. = .005); and efficiency and effectiveness (-.518, sig. = .003). On the other hand, years of existence was related to the performance of faculty along relevance and responsiveness as shown by the r-value of -.570, .01 level of significance. In the case of the non-teaching staff, a negative significant relationship between the year of existence and efficiency and effectiveness existed as shown by the r-value of -.411, sig. = .024. With respect to the performance of the students, there was no significant relationship between the HEIs profile and the four indicators.

### Table 5: Relationship between HEIs Profile and the Performance of Administrators

<table>
<thead>
<tr>
<th>Profile of the Administrators</th>
<th>HEIs Performance Indicators</th>
<th>Quality &amp; Excellence</th>
<th>Relevance &amp; Responsiveness</th>
<th>Access &amp; Equity</th>
<th>Efficiency &amp; Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r-value</td>
<td>sig</td>
<td>r-value</td>
<td>sig</td>
<td>r-value</td>
</tr>
<tr>
<td>Size</td>
<td>.296</td>
<td>.112</td>
<td>.274</td>
<td>.143</td>
<td>.272</td>
</tr>
<tr>
<td>Years of Existence</td>
<td>-.331</td>
<td>.074</td>
<td>-.513**</td>
<td>.004</td>
<td>-.501**</td>
</tr>
<tr>
<td>Internal Operating Budget</td>
<td>.339</td>
<td>.067</td>
<td>.257</td>
<td>.171</td>
<td>.313</td>
</tr>
<tr>
<td>Profile of Faculties</td>
<td>Quality &amp; Excellence</td>
<td>Relevance &amp; Responsiveness</td>
<td>Access &amp; Equity</td>
<td>Efficiency &amp; Effectiveness</td>
<td></td>
</tr>
<tr>
<td>r-value</td>
<td>sig</td>
<td>r-value</td>
<td>sig</td>
<td>r-value</td>
<td>sig</td>
</tr>
<tr>
<td>Size</td>
<td>-.032</td>
<td>.867</td>
<td>-.081</td>
<td>.671</td>
<td>.058</td>
</tr>
<tr>
<td>Years of Existence</td>
<td>-.070</td>
<td>.714</td>
<td>-.570**</td>
<td>.001</td>
<td>.007</td>
</tr>
<tr>
<td>Internal Operating Budget</td>
<td>-.127</td>
<td>.505</td>
<td>-.136</td>
<td>.472</td>
<td>.082</td>
</tr>
<tr>
<td>Profile of the Non-Teaching Staff</td>
<td>Quality &amp; Excellence</td>
<td>Relevance &amp; Responsiveness</td>
<td>Access &amp; Equity</td>
<td>Efficiency &amp; Effectiveness</td>
<td></td>
</tr>
<tr>
<td>r-value</td>
<td>sig</td>
<td>r-value</td>
<td>sig</td>
<td>r-value</td>
<td>sig</td>
</tr>
<tr>
<td>Size</td>
<td>.008</td>
<td>.968</td>
<td>.051</td>
<td>.790</td>
<td>.147</td>
</tr>
<tr>
<td>Years of Existence</td>
<td>-.306</td>
<td>.100</td>
<td>-.315</td>
<td>.090</td>
<td>.129</td>
</tr>
<tr>
<td>Internal Operating Budget</td>
<td>.059</td>
<td>.759</td>
<td>.034</td>
<td>.857</td>
<td>.196</td>
</tr>
</tbody>
</table>

### Table 6: Relationship between HEIs Profile and the Performance of Students

<table>
<thead>
<tr>
<th>Profile</th>
<th>HEIs Performance Indicators</th>
<th>Quality &amp; Excellence</th>
<th>Relevance &amp; Responsiveness</th>
<th>Access &amp; Equity</th>
<th>Efficiency &amp; Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>r-value</td>
<td>sig</td>
<td>r-value</td>
<td>sig</td>
<td>r-value</td>
<td>sig</td>
</tr>
<tr>
<td>Size</td>
<td>-.061</td>
<td>.750</td>
<td>.166</td>
<td>.380</td>
<td>.130</td>
</tr>
<tr>
<td>Years of Existence</td>
<td>-.119</td>
<td>.530</td>
<td>-.336</td>
<td>.069</td>
<td>-.002</td>
</tr>
<tr>
<td>Internal Operating Budget</td>
<td>-.070</td>
<td>.713</td>
<td>.094</td>
<td>.622</td>
<td>.093</td>
</tr>
</tbody>
</table>

In light of the foregoing findings of the study, the following conclusions were drawn: The Higher Education Institutions in Pangasinan are performing and attaining the goals/indicators of quality and excellence, relevance and responsiveness, access and equity, and efficiently and effectively at a high level, despite their small internal operating budget and being young in this endeavour. However, there is still room for improving the performance to a higher level along those indicators. Years of existence of the HEIs as institutions is related with the performance of HEIs.
Based on the findings and conclusions of this study, the following recommendations are offered: 1) Tom improved the performance of HEIs to a higher level along the indicators considered, a three-pronged approach is recommended namely: a) Continuous review and enrichment of the curricular programs be made; b) A purpose-driven staff and faculty development program should be formulated and implemented; c) The Research and Extension Programs of HEIs should be strengthened by way of the infusion of additional budget and incentives for the faculty members. Further studies need to be conducted on the performance of HEIs using other variables such as social and economic benefits derived by the immediate community and the whole province resulting from the existence of these institutions.
References


Appendix A: Letter of Request to Conduct the Study

The President/Head

____________________

Sir/Madam:

The undersigned is presently conducting a study entitled “Organizational Performance of Higher Education Institutions in Pangasinan”.

In this regard, may I request you to share your precious time by accomplishing the attached questionnaire. Your full cooperation and patience in accomplishing the questionnaires will help me a lot in the completion of my research work.

Further, may I also request permission to distribute questionnaires related to the above study to your faculty, non-teaching staff and students. Rest assured that all responses will be kept in strict confidentiality.

Thank you very much and Godspeed!

Very truly yours,

(Sgd.) JOSEPHINE S. LAMBINICIO
Researcher

Appendix B: An Instrument Establishing the Content Validity of the Questionnaire

Dear Sir/Madam:

The researcher has chosen you as one expert to evaluate the content validity of her research instrument by indicating the rating on the space provided for . Please use the scale and descriptive rating below:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Descriptive Rating</th>
<th>Extent of Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Not Valid at All</td>
<td>at least 20% of the items in the instrument are appropriate and relevant, revise totally</td>
</tr>
<tr>
<td>B</td>
<td>Not Valid</td>
<td>At least 40% of the items in the instrument are appropriate and relevant</td>
</tr>
<tr>
<td>C</td>
<td>Moderately Valid</td>
<td>At least 60% of the items in the instrument are appropriate and relevant</td>
</tr>
<tr>
<td>D</td>
<td>Highly Valid</td>
<td>At least 80% of the items in the instrument are appropriate and relevant</td>
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<tr>
<td>E</td>
<td>Very Highly Valid</td>
<td>100% of the items in the instrument are appropriate and relevant</td>
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### Indicators of Validity

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<th>Rating</th>
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<tbody>
<tr>
<td>A</td>
<td>The items in each concept are stated clearly</td>
</tr>
<tr>
<td>B</td>
<td>The items in each concept are sufficiently inclusive</td>
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<tr>
<td>C</td>
<td>The items in each concept correspond to the subject matter/topic</td>
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<tr>
<td>D</td>
<td>The items in each concept is consistent to reality</td>
</tr>
<tr>
<td>E</td>
<td>The items in each concept show a reasonable range of variation</td>
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<table>
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<th>Rating</th>
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<tr>
<td>F</td>
<td>The items in each concept are correct and accurate</td>
</tr>
<tr>
<td>G</td>
<td>The items in each concept are precise and exact</td>
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<tr>
<td>H</td>
<td>The items in each concept could be applied specifically for the topic</td>
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### Appendix C: List of Higher Education Institutions in Pangasinan As of SY 2002

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Name of Institution</th>
<th>Address</th>
<th>Number of Employees</th>
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<tbody>
<tr>
<td>Western Pangasinan</td>
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Total: 520 Faculty, 320 Staff, 840

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Asia Pacific Institute of Advanced Research (APIAR)
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<th>City</th>
<th>Men</th>
<th>Women</th>
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