Sailing on the Path of Knowledge

Young Scholar Cultivation Workshop

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Objectives

To inspire young people’s interests in academic research, National Central Library (NCL) Taiwan, R.O.C. has held the “Young Scholar Cultivation Workshop” for high school students nationwide.

In 2015, from July 13th to August 13th, 94 students in 3 batches had participated in the 4-day workshop. Professionals were invited to give lectures on different topics, such as information resources, research design, academic writing skills.

How

1. The students were divided into groups
2. Requirements
   - Complete process of doing academic research
   - Group discussion as an ice-breaker
   - Brainstormed together
3. Literature review
4. Questionnaire design
5. Data analysis
6. Presented their research findings as the result of team work

Students had experienced a wonderful journey on academic research!

Learning Outcomes

—Young Scholar Cultivation Workshop Trainee (2015)

<table>
<thead>
<tr>
<th>Question</th>
<th>Pretest AVG.(A)</th>
<th>Follow-up AVG.(B)</th>
<th>Performance Change (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I can tell the difference between NCL and other libraries.</td>
<td>3.59</td>
<td>4.09</td>
<td>0.36</td>
</tr>
<tr>
<td>2. I know that libraries provide various reference tools and electronic resources which can support my study and research.</td>
<td>4.03</td>
<td>4.77</td>
<td>0.74</td>
</tr>
<tr>
<td>3. I am familiar with retrieving database to find out information and research literature.</td>
<td>3.08</td>
<td>4.29</td>
<td>0.21</td>
</tr>
<tr>
<td>4. I know each kind of research methods.</td>
<td>4.12</td>
<td>4.13</td>
<td>0.01</td>
</tr>
<tr>
<td>5. I know that questionnaire survey is one of the methods of data collection.</td>
<td>4.36</td>
<td>4.73</td>
<td>0.37</td>
</tr>
<tr>
<td>6. I know how to use Google Docs for online writing.</td>
<td>3.59</td>
<td>4.19</td>
<td>0.60</td>
</tr>
<tr>
<td>7. I am familiar with the format of academic writings.</td>
<td>3.78</td>
<td>4.35</td>
<td>0.21</td>
</tr>
<tr>
<td>8. I know how to write the research project.</td>
<td>3.72</td>
<td>4.09</td>
<td>0.37</td>
</tr>
</tbody>
</table>

Result

- Highly consistent items of trainee’s learning outcomes before and after workshop
- The shape of follow-up test’s line chart were quite similar but higher than pretest’s one
- Significantly enhanced items of trainee’s learning outcomes before and after workshop (—persistent learning)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Pretest AVG.(A)</th>
<th>Follow-up AVG.(B)</th>
<th>Performance Change (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Having more understanding on NCL and resources that could support research and will use afterwards.</td>
<td>89.8%</td>
<td>94.9%</td>
<td>5.1%</td>
</tr>
<tr>
<td>2. No demands for preparing short essay temporarily.</td>
<td>94.8%</td>
<td>97.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>3. Free to read without research purpose.</td>
<td>88.8%</td>
<td>91.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>4. Having more understanding on NCL and resources that could support research and will use afterwards.</td>
<td>91.9%</td>
<td>95.9%</td>
<td>4.0%</td>
</tr>
<tr>
<td>5. Students had experienced a wonderful journey on academic research!</td>
<td>90.9%</td>
<td>94.9%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

Conclusion

- The learning outcomes pattern consistent with learning theory, proved that the persistent learning
- The shape of follow-up test’s line chart were quite similar but lower than posttest, and still higher than pretest
- Students had experienced a wonderful journey on academic research!
- The learning outcomes pattern consistent with learning theory, proved that the persistent learning
- Students had experienced a wonderful journey on academic research!

Agenda

Day 1
- Orientation PPT
- Introduction to Different Types of Libraries & NCL Tour
- Group Interaction

Day 2
- Lecture: Research Experience Sharing from the Famous Professor
- Lecture: Reference Resources and Searching Techniques
- Activity 1: Research Topic Development
- Group Interaction

Day 3
- Activity 2: Literature Review & Analysis
- Activity 3: Online Questionnaire Design
- Activity 4: Analyzing the results of questionnaire, drafting the essay outline and writing techniques

Day 4
- Group Interaction
- Lecture: Research Methods
- Group Presentation & Evaluation
- Farewell Teamwork/How for Instructors & Students

Research

Interaction

Energy