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Impact of web technologies on student-lecturer relationship

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(1) Abstract

This paper aims to investigate the impact of using web resources as a source of knowledge on the student-lecturer relationship in Saudi Arabia. The investigation covers five aspects of the relationship: expert power and referent power which are part of power in classroom, self-confidence, reliance and connectedness which are part of academic engagement in classroom. Connectedness includes investigating students’ view about using social web in education.

(2) Research questions

1. What is the impact of using Web as source of knowledge on student-lecturer expert and referent power relationship?
2. What is the impact of using Web as source of knowledge on students’ self-confidence and reliance?
3. What is the impact of using web as source of knowledge on student-lecturer connectedness?

(3) Definitions

1. Expert power: “The power that comes from having knowledge and expertise in a particular area” (Nazarco, 2004)
2. Referent power: “Based on B’s desire to be identified or associated with A” (Dunne et al., 2010)
3. Self-confidence: “The sense of personal strength and a belief that you are worthy and talented” (Masters and Wallace, 2010)
4. Self-reliance: “The condition of relying on our resources as a people in order to accomplish any number of specific tasks and responsibilities that contribute to our liberation and independence” (Johnson, 1969).
5. Connectedness: is recognized as students’ active engagement in the academic and social opportunities at their school based on their understanding that teachers school care for them as individuals, as well as for their learning (British Columbia, 2012).

(4) Methods & Data

Method
A Questionnaire was used to collect data.

1. Quantitative data: Close-ended questions cover the five aspects of the impact.
2. Qualitative data: Open-Ended questions included in each group of the Close-ended questions.

Participants
• Data collected from 36 education institutions.
• 969 males and 377 females.
• Participants older than 18 years.
• Participants use the traditional way of learning (classrooms).

(5) Instruments

<table>
<thead>
<tr>
<th>Impact</th>
<th>Used instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert power</td>
<td>Power Use scale (TPUS)</td>
</tr>
<tr>
<td>Referent power</td>
<td>Teacher Power Use scale (TPUS)</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>Academic Engagement Form (AEF)</td>
</tr>
<tr>
<td>Reliance</td>
<td>Academic Engagement Form (AEF)</td>
</tr>
<tr>
<td>Connectedness</td>
<td>Student Instructor Relationship Scale (SIRS)</td>
</tr>
</tbody>
</table>

(6) Analysis

1. Quantitative analysis: PASW was used to analyse close-ended questions.
   1.1 Correlations: to validate items relationships.
   1.2 Compute variables: to analyse the 7 likert scales.
   1.3 Compare means: to measure how the five aspect of relationship change over the internet.
   1.4 T-test: to compare males results to females.
2. Qualitative analysis: Thematic analysis technique was used to analyse open-ended questions.
   2.1 Coding
   2.2 Theming

(7) Results-1: Expert power

![Figure 1 Level of impact of websites on student-lecturer expert power](image1)

- High Impact
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

- No impact
  - Less than 1 hour
  - 1-5 hours
  - 5-10 hours
  - 10-15 hours
  - 15-20 hours
  - More than 20 hours

- Male: 4.5245
- Female: 4.8317

(8) Results-2: Referent power

![Figure 2 Level of impact of websites on student-lecturer referent power](image2)

- High Impact
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

- No impact
  - Less than 1 hour
  - 1-5 hours
  - 5-10 hours
  - 10-15 hours
  - 15-20 hours
  - More than 20 hours

- Male: 4.7194
- Female: 4.716

(9) Results-3: Self-confidence

![Figure 3 Level of impact of websites on students self-confidence](image3)

- High Impact
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

- No impact
  - Less than 1 hour
  - 1-5 hours
  - 5-10 hours
  - 10-15 hours
  - 15-20 hours
  - More than 20 hours

- Male: 5.972
- Female: 5.707

(10) Results-4: Self-reliance

![Figure 4 Level of impact of websites on students reliance](image4)

- High Impact
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

- No impact
  - Less than 1 hour
  - 1-5 hours
  - 5-10 hours
  - 10-15 hours
  - 15-20 hours
  - More than 20 hours

- Male: 4.516
- Female: 4.9016

(11) Results-5: Connectedness

![Figure 5 Level of impact of websites on student-lecturer connectedness](image5)

- High Impact
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

- No impact
  - Less than 1 hour
  - 1-5 hours
  - 5-10 hours
  - 10-15 hours
  - 15-20 hours
  - More than 20 hours

- Male: 4.0256
- Female: 4.1254

(12) Results-6: Students’ views about web 2.0

![Image showing percentage of students' views](image6)

- Male: 38%
- Female: 37%

(13) Discussions

There is insignificant difference between males and females in the analysis results of the impact on power in classroom and academic engagement. Mostly, the level of impact among females is slightly higher compared to males. In general there is a noticeable impact on student-lecturer power relationship and academic engagement in classroom due to the students’ use of the websites as a source of knowledge. These findings suggest the need for rapid transformation of the traditional concept of education to modern education. The role of lecturer should change from being teacher-lecturer model to the teacher-facilitator model to fulfill students’ aspirations.

References