Evaluation of students’ employability skills development and the use of radar diagrams in Personal Development Planning

Dr Fiona Aiken SFHEA – Fiona.Aiken@open.ac.uk
Dr Chris Hutton SFHEA – Christopher.Hutton@open.ac.uk
Staff Tutors in Earth and Environmental Science
The Open University
Outline

1. Background
2. Context
3. Research questions and approach
4. Results and Discussion
5. Conclusions
Background

The national picture

• Employability skills have to be embedded in all HE courses
• Key review – Wakenham, 2016
• Skills development is strongly linked to Personal Development Planning (PDP)
• Students are encouraged to self-assess skills, and then reflect to plan improvements.
  • E.g. Kolb’s Learning Cycle

Image credit: https://www2.le.ac.uk/departments/doctoralcollege/training/eresources/teaching/theories/kolb
Skills development on S112

- **Science: concepts and practice**
  - New, multidisciplinary module from Oct 2017
  - 60 credits
  - FHEQ Level 4
  - Focussed on **skills**

- Students regularly self-assess skills using a **radar diagram**
  - Required in each of 6 assignments, with reflection
Context

We looked at two groups of Learning Outcomes

1. Collaborating with others …
Context

2. Self reflection and planning...
Research Question 1 and Approach

To what extent do students demonstrate development of employability skills through S112?

Tutor Focus Group

Assignment submissions

Student Questionnaire
Research Question 2 and Approach

What are students’ perceptions of their employability skills development through S112?

Student Questionnaire

Tutor Focus Group
Results and Discussion

Student assignments (n = 19) : Collaborating with others

Percentage frequencies of change in score

- B/C Aware
- Digi cont
- Teams
- Comment
- Contribute
Results and Discussion

Student assignments (n = 18): Self-reflection and planning

Percentage frequencies of change in score

<table>
<thead>
<tr>
<th>Score Change</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ref Prac</td>
<td></td>
</tr>
<tr>
<td>Ref F/back</td>
<td></td>
</tr>
<tr>
<td>PDP</td>
<td></td>
</tr>
<tr>
<td>Time man</td>
<td></td>
</tr>
</tbody>
</table>
Results and Discussion

Student questionnaire (n=115, 18%): Collaborating with others
Results and Discussion

Student questionnaire (n=115, 18%): Self-reflection and planning

% agreement

<table>
<thead>
<tr>
<th></th>
<th>Important to students</th>
<th>Important to employers</th>
<th>Well developed by module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time management</td>
<td>95</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>Personal Development Planning</td>
<td>90</td>
<td>85</td>
<td>85</td>
</tr>
<tr>
<td>Reflecting on feedback</td>
<td>100</td>
<td>90</td>
<td>95</td>
</tr>
<tr>
<td>Reflecting on your practice</td>
<td>95</td>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>
Results and Discussion

Student Questionnaire (n=115, 18%): 93% used radar diagrams

Percentage agreement on radar diagram questions

- Easy to understand
- Easy to use
- Easy to see progress
- Focus on improvement
- Assess skills
- Develop skills
- Used to get marks

Legend:
- Agree
- Neither
- Disagree
## Results and Discussion

### Student questionnaire: main emerging themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-themes (number comments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time management</td>
<td>Negative (6) Positive (10)</td>
</tr>
<tr>
<td>Communication</td>
<td>Negative (3) Positive (4)</td>
</tr>
<tr>
<td>Group work</td>
<td>Negative (11) Positive (10)</td>
</tr>
<tr>
<td>Reflecting on feedback</td>
<td>Negative (0) Positive (7)</td>
</tr>
<tr>
<td>Radar diagrams as a tool</td>
<td>Negative (53) Positive (17)</td>
</tr>
<tr>
<td></td>
<td>Just for marks (20) Problems self-assessing (40)</td>
</tr>
<tr>
<td></td>
<td>Technical problems (18)</td>
</tr>
<tr>
<td></td>
<td>Bad idea for progression (40)</td>
</tr>
<tr>
<td></td>
<td>Good idea for progression (8)</td>
</tr>
</tbody>
</table>
Results and Discussion

Associate Lecturer Focus Groups

- Compared 3 ALs who participated in project with 3 ALs who weren’t involved
- Both groups of ALs agreed on:
  - The importance of their advice to students
  - That the module developed skills well
- The ALs involved in the project provided richer information
- There was a difference when comparing the number of positive and negative comments on radar diagrams:

<table>
<thead>
<tr>
<th></th>
<th>Involved</th>
<th>Not involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Negative</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

… could this be evidence of unconscious bias in the ALs involved? May affect the presentation of radar diagrams and skills development to students.
Conclusions

- Students showed improvement in self-assessment scores, except Business and Customer Awareness
  - Questionnaire supports this - least valued skill
  - Embed at qualification level, not module
- Most engaged with radar diagrams to gain marks
- Majority found radar diagrams usable and understandable
- < 50% students found value in radar diagrams for PDP
- Students struggle to self-assess at module start
- The role of AL advice is key – can also affect student perceptions
References


Any questions?...

Thank-you for attending

Dr Fiona Aiken SFHEA – Fiona.Aiken@open.ac.uk
Dr Chris Hutton SFHEA – Christopher.Hutton@open.ac.uk
Staff Tutors in Earth and Environmental Science
The Open University

Acknowledgements: Isabella Henman, Jane Kendall-Nicholas and Niusa Marigheto