EXPLORING STUDENT PERCEPTIONS OF EMPLOYABILITY SKILLS DEVELOPMENT USING RADAR CHARTS IN FIRST YEAR SCIENCE

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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
Context

Skills development on S112

• **Science: concepts and practice**
  • New, multidisciplinary module from Oct 2017
  • 60 credits
  • UK FHEQ Level 4 (Year 1)
  • 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** ...
2. Self reflection and planning...
Research Question 1 and Approach

Student Questionnaire

Tutor Focus Group

What are students’ perceptions of their employability skills development?
Research Question 2 and Approach

What are students’ perceptions of radar charts as a means of ePDP?

Student Questionnaire

Tutor Focus Group
Results and Discussion

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

- Contributing to discussions: 90% agreement
- Commenting on the work of others: 85% agreement
- Working in a team: 87% agreement
- Sharing digital content: 92% agreement
- Business and Customer Awareness: 30% agreement

Legend:
- Important to students
- Important to employers
- Well developed by module
Results and Discussion

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

- Time management: 90% agreement
- Personal Development Planning: 85% agreement
- Reflecting on feedback: 95% agreement
- Reflecting on your practice: 90% agreement

The chart shows the % agreement for various aspects of self-reflection and planning based on student and employer perspectives. The importance of these aspects is assessed by students and employers, with a focus on how well they are developed by the module.
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

- Agree
- Neither
- Disagree
## Results and Discussion

Student questionnaire: skills development

<table>
<thead>
<tr>
<th>Theme</th>
<th>Coded positive / negative comments (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>IT skills (3)</td>
<td></td>
</tr>
<tr>
<td>General (21)</td>
<td></td>
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</tbody>
</table>
Results and Discussion

What do students say about skills development?

As time went on [...] I felt my skills getting more honed & activities set were very well tailored.

Reflecting on my practice and feedback was shown to be important in a lot of [my Associate Lecturer’s] online tutorials.

Contribution to discussions, commenting and teamwork will only work, if all members of the assigned tutor group participated and in a timely manner.
## Results and Discussion

**Student questionnaire: radar charts as a tool**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Coded positive / negative comments (number comments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radar diagrams as a tool</td>
<td>Negative (53)</td>
</tr>
<tr>
<td></td>
<td>Positive (17)</td>
</tr>
<tr>
<td></td>
<td>Just for marks (20)</td>
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<tr>
<td></td>
<td>Problems self-assessing (40)</td>
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<td></td>
<td>Technical problems (18)</td>
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<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

What do students say about radar charts?

Filling in the radar charts at the start of the course was a mistake for me as I overrated myself and quickly found during the course that I was not as good as I thought in many skills.

I personally didn't find them that helpful, but I think it depends on the person and the kind of learning they benefit from most.

I feel that the radar charts were cumbersome and actually got in the way of any real reflection on how my studies were progressing.
# Results and Discussion

## Associate Lecturer Focus Groups

<table>
<thead>
<tr>
<th>Focus group</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Associate Lecturers involved in project</strong></td>
<td>Confidence in skills (7)</td>
</tr>
<tr>
<td></td>
<td>Driven by marks (4)</td>
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<tr>
<td></td>
<td>Radar Diagrams (1)</td>
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<tr>
<td></td>
<td>Self-assessment of skills (8)</td>
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<tr>
<td></td>
<td>Time management (7)</td>
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<td></td>
<td>Tutor skills development advice (5)</td>
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<tr>
<td></td>
<td>Working with others (3)</td>
</tr>
<tr>
<td><strong>Associate Lecturers not involved in project</strong></td>
<td>PDP (4)</td>
</tr>
<tr>
<td></td>
<td>Radar Diagrams</td>
</tr>
<tr>
<td></td>
<td>Skills development (1)</td>
</tr>
</tbody>
</table>
Results and Discussion

What do Associate Lecturers say about skills development and radar charts?

I think the fact that a lot of these things are tied to marks, because students are forced to do them, they are doing them.

I think this structured reflection helps, especially as we return to it regularly.

I think students tend to comment that the skills that they perhaps make the most progress with are those that they get the most experience doing like practical skills, maths skills.
Conclusions

• *What are students’ perceptions of their employability skills development?*

There is evidence that students perceived development of most employability skills in the module, most strongly in the case of collaboration, time management and communication.

• *What are students’ perceptions of radar charts as a means of ePDP?*

Student engagement with ePDP could be better encouraged by allowing radar charts to be an optional tool alongside other means of recording ePDP, e.g an e-portfolio.
References


Any questions?...

Thank-you for attending

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