Readiness of Allied Health Professionals to use Technology in the Workplace

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Drivers

NHS Scotland e-Health Strategy 2014-17

E-health
  ➢ Development of paper-less and paper-light clinical record keeping

Tele-medicine
  ➢ Potential of technologies to support clinical interventions

E-learning
  ➢ Increasing use of virtual learning environments for CPD
Aim

To explore the readiness of both qualified and student AHPs to use technology in the workplace
Methods

- **Technology Readiness Index 2.0** (Parasuraman and Colby, 2014)
  - Innovativeness
  - Optimism
  - Discomfort
  - Insecurity
  - Overall TRI

- Online and paper versions of the survey sent to AHPs across NHS Lothian and QMU AHP students

- Ethical approval given by Queen Margaret University
Participants

487 respondents in total

<table>
<thead>
<tr>
<th>Qualification</th>
<th>101 (21%) students</th>
<th>59 (12%) qualified &lt; 5 years</th>
<th>327 (67%) qualified &gt; 5 years</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>50 males</th>
<th>437 females</th>
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</table>

<table>
<thead>
<tr>
<th>Age (average 36.8 years)</th>
<th>Students = 24.4 years</th>
<th>Qualified &lt; 5 years = 26.9 years</th>
<th>Qualified &gt; 5 years = 42.6 years</th>
</tr>
</thead>
</table>
## Results

<table>
<thead>
<tr>
<th>Group</th>
<th>Innovativeness</th>
<th>Optimism</th>
<th>Discomfort</th>
<th>Insecurity</th>
<th>Total TRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>3.2</td>
<td>3.7</td>
<td>2.7</td>
<td>3.5</td>
<td>3.1</td>
</tr>
<tr>
<td>Qualified (&lt;5 years)</td>
<td>3.2</td>
<td>3.8</td>
<td>2.5</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Qualified (&gt;5 years)</td>
<td>2.9</td>
<td>3.5</td>
<td>2.6</td>
<td>3.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>

A score of 3.0 indicates a neutral opinion
A higher score = greater innovativeness, optimism but also greater discomfort and insecurity
Significant Findings

- Students tended to show HIGHER levels of insecurity than all qualified staff.
- Longer qualified staff showed SIMILAR levels of insecurity and discomfort to more recently qualified staff.
- Staff who have been qualified longer showed LOWER levels of INNOVATIVENESS and OPTIMISM than either students or newly qualified staff.
## Typology

<table>
<thead>
<tr>
<th>Typology</th>
<th>% respondents</th>
<th>Normative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skeptic</td>
<td>56%</td>
<td>21.5%</td>
</tr>
<tr>
<td>Explorer</td>
<td>19%</td>
<td>25%</td>
</tr>
<tr>
<td>Avoider</td>
<td>10%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Pioneer</td>
<td>5%</td>
<td>22%</td>
</tr>
<tr>
<td>Hesitator</td>
<td>9%</td>
<td>18%</td>
</tr>
</tbody>
</table>

High proportion of **skeptics** –

Need to educate and convince them on the benefits, but should not be concerned about a high level of resistance.
What can we learn?

- Generally respondents had optimistic views and did not feel uncomfortable using technology.

- Most respondents did feel insecure suggesting work is required to reassure staff.

- New graduates may have an optimism about technology and may see opportunities for implementation BUT discomfort and insecurity is likely to stifle their willingness to develop these skills.
So What?

- EDUCATION is needed to convince staff of the benefits
- SUPPORT and REASSUREANCE for both students and staff
- The next stage of RESEARCH should investigate why students/new graduates feel stifled
Acknowledgements

- Our very grateful thanks go to:
  - Euan McComiskie for his advice and support in the development of this project;
  - Practice Education Leads for their support in participant recruitment;
  - All AHPs, students and staff, who participated;
  - Parasuraman and Colby of Rockbridge Associates for their permission to use the TRI.

- For further information, please contact Judith Lane (jlane@qmu.ac.uk)
Thank you for listening, any questions?