LEARNING FOR EMPLOYABILITY IN THE 21ST CENTURY IN THE KINGDOM OF BAHRAIN

The relationships between Learning Power and personal qualities, skills and learning development associated with successful graduation and employability in a twenty-first century Middle Eastern setting.

The report of a Research and Development Project from September 2009 to August 2010, managed by ViTaL Partnerships in partnership with Bahrain Polytechnic and the University of Bristol, using the Effective Lifelong Learning Inventory (ELLI).

The ViTaL Development & Research Programme
Report No. 10

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1. INTRODUCTION

From early in 2009, Bahrain Polytechnic was seeking to develop a comprehensive, integrated programme to enable students, staff and stakeholders to establish the profile of a successful Bahraini Polytechnic graduate and deliver the programme required for students to achieve it. The Effective Lifelong Learning Inventory (Deakin Crick, R. et al 2004) was seen as giving theoretical substance to the graduate profile definition and representing a tool both for promoting students’ holistic development over time and evaluating the programme’s effectiveness.

The project was designed as an Action Enquiry, using engaged research methodologies to stimulate change and evaluate impact and response, quantitatively and qualitatively, in relation to strategic priorities identified by the Polytechnic and involving its own practitioners as co-researchers.

The overall aim of the project was therefore to provide high quality research and development support to Bahrain Polytechnic’s goal of creating and evaluating a curriculum designed to produce “work-ready” graduates.

The key objectives were as follows:

- To validate ELLI in the Bahrain Polytechnic and Middle Eastern setting
- To establish a valid and reliable means of profiling students in terms of their learning power, as individuals, groups and as a whole population
- To investigate and clarify the relationships between the seven learning power dimensions and the characteristics of the generic graduate profile
- To devise and implement new interventions for developing these characteristics and evaluate them together with existing provision in terms of impact upon students and professional practice
- To consider the relationship of particular interventions to changes in learning power and to the effectiveness of students’ preparation for employment.

The purpose of this report is to describe the progress made by the project towards these goals, present and discuss key findings in relation to the identified research questions and illustrate them with a selection of the data gathered, including qualitative and narrative data collected on site in two visits and expert analysis of the quantitative data generated by students’ use of the ELLI tool. The report concludes by evaluating the project in relation to its aims and discussing implications for the way ahead.
2. METHODOLOGY

2.1 Research questions

The scope of the project and its status as an action enquiry were defined and focussed by the following **Research Questions (RQs)**:

1. How valid and reliable is the ELLI Inventory in a Middle Eastern context? (quantitative)

2. What is the learning power profile of Bahraini students on intake and how does it compare with:
   a) the learning power profile of a group of students at the end of the Foundation year who have had no experience of ELLI related interventions and
   b) the learning power profile of both groups following a programme of ELLI related and existing interventions focussed on learning and personal development and employability? (quantitative)

3. How do:
   a) students;
   b) teaching staff
   c) student mentors
   respond to the ELLI profile and its associated ideas and strategies? (qualitative)

4. To what extent do these groups attribute any self-reported change in students' learning power to (quantitative and qualitative):
   a) the learning environment and teaching at the Polytechnic?
   b) teaching strategies focussed on learning development and employability?
   c) mentoring offered by the Polytechnic?
   d) the ELLI survey, profile and strategies?
   e) factors in their wider life and experience?
   f) work placements?
   g) decisions they have made autonomously?
   h) other factors?

5. How effective are the ELLI tool and associated strategies as a mechanism for developing personal and professional qualities and skills required for employability and future life in the Bahrain context? (quantitative, qualitative and narrative)

2.2 Interventions and data collection

The research was a mixed methods case study with a pre-experimental research design drawing on action enquiry methodology.

ELLI Learning Power surveys were introduced to three cohorts of identified students, totalling 821 individual cases, in the Autumn of 2009:

- Foundation 1
- Foundation 2 (the group having one year’s experience at the Polytechnic)
- Degree Course students

to elicit baseline quantitative data characterising the sample in terms of learning power. (A cohort of new students were also surveyed in March 2010.) Their tutors and a core team of academic skills staff received ELLI Champions’ training in
September 2009. About forty other staff also received an ‘ELLI Briefing’ session, enabling them to contribute to the interventions programme under the guidance of the Champions team.

The trained staff implemented interventions designed to build learning power, in at least two ways:

- Offering some mentoring support to individual students to assist them in interpreting their ELLI profiles and converting the self-diagnosis represented by them into a strategy for change;
- Adapting particular programmes by integrating the ideas and principles of the ELLI research into the language and format of their teaching.

The trained Champions were also enlisted as co-researchers to record interventions and gather and report narrative and qualitative data related to the research questions.

ELLI Learning Power surveys were re-introduced to same cohorts of students in early June 2010, of whom 211 had completed second surveys by the time the data analysis was conducted.

The Project Manager conducted focus groups and semi-structured interviews to harvest qualitative data at two points during the process (see also 3.1.1):

- In mid-March 2010, after one full semester for the interventions to take effect, to elicit feedback on impact and response;
- In mid-June 2010, shortly after post-intervention surveys had been conducted (see below) to elicit qualitative data in relation to perceived change.

2.3 Data analysis

The quantitative data generated by these surveys was analysed at the University of Bristol using SPSS software, in relation to the Research Questions in 2.1 above, using:

- Quantitative analysis of raw ELLI data to characterise the sample(s);
- Comparative analysis of ELLI data using paired T-tests and Analyses of Variance for:
  - Pre- and post- intervention comparisons
  - Comparisons between different intakes
  - Comparisons between groups receiving different interventions
  - Gender comparisons
- Comparative analysis of ELLI data against:
  - ELLI data from similar age samples in the UK
  - other in-house (e.g. demographic and performance) data if supplied.

The qualitative data was analysed in its own right and in relation to the quantitative data analysis, using:

- Narrative description; thematic analysis of training, semi-structured interview and focus group feedback; analysis of non-participant observation.
3. SELECTION OF DATA

3.1. Summary of evidence base:

3.1.1 Qualitative and narrative data (RQs 1, 2 & 4)

Qualitative and narrative data were collected over two days on 16\textsuperscript{th}-17\textsuperscript{th} March 2010 from:

- seven groups of students, totalling twenty-three individuals representing Foundation 1 & 2 and Degree Courses
- eight tutors of the above groups (plus one group not represented)
- three project or institutional leaders

The same groups and individuals were invited to be interviewed during a second visit on 13\textsuperscript{th}-14\textsuperscript{th} June 2010, focussing on perceptions of change shortly after the second ELLI surveys, when seventeen of the students and six of the tutors were available.

The groups were selected by the Project Leader at the Polytechnic to be representative in terms of academic ability and gender and selective in terms of readiness and ability to converse with the researcher.

The interviews and focus groups were conducted in a manner which avoided leading questions and made clear that all data was welcome, whether ‘positive’ or ‘negative’. The schedule of questions was circulated in advance and is attached as Appendix 1. Supplementary questions were framed in the language of previous answers.

3.1.2 Quantitative data (RQ 3)

Analysis of the ELLI Profile data for the cohort of (N=821) students included:

- Frequencies and learning power descriptives, pre-intervention and post-intervention;
- Analyses of Variance (ANOVARs) to explore the differences between the three teaching groups, Foundation 1 & 2 and Degree, and genders, for each Learning Power Dimension, pre-intervention
- Paired T Tests giving pre-post differences reaching statistical significance for the entire matched cohort (N=211)
- Paired T Tests for each of the three teaching groups on each of the Seven Dimensions, comparing their learning power mean scores pre- and post-intervention to evaluate and compare the impact of the interventions on each of the three groups.
- Paired T Tests for the genders on each of the Seven Dimensions, comparing their learning power mean scores pre- and post-intervention to evaluate and compare the impact of the interventions on each gender.

3.2 Selection criteria for evidence in support of findings

The findings below were arrived at by the researcher immersing himself in the quantitative, qualitative and narrative data collected through the above process, identifying emerging key themes in relation to each research question and verifying these by matching them with available evidence from the documentation which met the following criteria:

- For qualitative evidence:
Learning for Employability in the 21st Century in the Kingdom of Bahrain

- Being freely offered, orally or in writing, in response to open questions, without leading or prompting
- Either being reported as a personal example of a general observation agreed with by a clear (stated) majority of other respondents or being supported, in its representation of the finding in question, by at least two other independent recorded responses
- Relevance to the research questions
- Where relevant, being supported by quantitative data

- For quantitative data (from online surveys pre- and post-intervention):
  - being statistically significant or (where stated) at a level approaching statistical significance
  - where relevant, being supported by qualitative and narrative evidence that met the above criteria

The case studies reported on in Section 4.6 were selected from amongst the most experienced (Degree) students who had contributed to the qualitative data collection, for their relevance to the research questions and capacity to illuminate the findings.
4. FINDINGS AND EVIDENCE

4.1 (RQ1) How valid and reliable is the ELLI Inventory in a Middle Eastern context?

4.1.1 Qualitative evidence (see also 4.3 below)

In response to staff feedback on the ELLI survey during the training workshops, all survey items were reviewed for language and accessibility, removing and replacing, as far as possible, colloquial language considered inaccessible or confusing to the majority of Bahraini students. A new ‘Bahrain English Version’ was thereby adapted and used with the students.

Feedback from the students suggested that almost all of those interviewed had been able to complete the survey and obtain a profile which they understood and could relate to with the help of a mentoring conversation. Some of the degree students (whose English would have been more advanced) reported having enjoyed the survey and most students attested to the face validity of their profiles. However, some students attributed some of the variation in their second profiles to having understood the questions better second time round. One English tutor expressed the view that the items could still be reviewed and improved, particularly for the Foundation course intake.

4.1.2 Quantitative evidence

Cronbach Alpha Co-efficients were calculated to assess the reliability of the scales and survey items used with the Bahraini cohort of students in both pre- and post-intervention assessments. Table 1 below shows the results:

<table>
<thead>
<tr>
<th>Table 1 – Cronbach Alpha Co-efficients (N=1103)</th>
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<tr>
<td>changing and learning</td>
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<td>critical curiosity</td>
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<td>meaning making</td>
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<td>creativity</td>
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<td>learning relationships</td>
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<tr>
<td>strategic awareness</td>
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<tr>
<td>fragility and dependence</td>
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</tbody>
</table>

Finding 4.1.2:
Whilst the Bahrain English version of the survey produces profiles with generally strong face validity and achieves acceptable (.7) or better levels of reliability in items relating to six out of seven dimensions, the items relating to Learning Relationships in particular could be reviewed again to reinforce the reliability and validity of the data.
4.2 (RQ2) What is the learning power profile of Bahraini students on intake and how does it compare with:
   a. the learning power profile of a group of students (Foundation II) at the end of the Foundation year who have had no experience of ELLI related interventions and
   b. the learning power profile of both groups following a programme of ELLI related and existing interventions focussed on learning and personal development and employability (i.e. post-intervention)?

(please see Appendix 2 for the full data analysis report)

4.2.1 The learning power profile of Bahraini students

Table 2, below, shows the mean scores of the entire Bahraini sample, at the start of the project, in each of the Seven Dimensions of Learning Power, ranging from nearly 80% in Meaning Making, to just over 50% in Resilience.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Position</th>
<th>Std. Deviation</th>
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</thead>
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<tr>
<td>Changing and Learning</td>
<td>821</td>
<td>8.33</td>
<td>100.00</td>
<td>75.12</td>
<td>2</td>
<td>18.34</td>
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<tr>
<td>Critical Curiosity</td>
<td>821</td>
<td>11.11</td>
<td>100.00</td>
<td>65.47</td>
<td>5</td>
<td>15.71</td>
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<tr>
<td>Meaning Making</td>
<td>821</td>
<td>28.57</td>
<td>100.00</td>
<td>79.6</td>
<td>1</td>
<td>13.36</td>
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<tr>
<td>Creativity</td>
<td>821</td>
<td>23.33</td>
<td>100.00</td>
<td>73.52</td>
<td>3</td>
<td>14.19</td>
</tr>
<tr>
<td>Learning Relationships</td>
<td>821</td>
<td>5.56</td>
<td>94.44</td>
<td>63.07</td>
<td>6</td>
<td>14.67</td>
</tr>
<tr>
<td>Strategic Awareness</td>
<td>821</td>
<td>2.56</td>
<td>100.00</td>
<td>66.58</td>
<td>4</td>
<td>14.97</td>
</tr>
<tr>
<td>Fragility and Dependence</td>
<td>821</td>
<td>7.84</td>
<td>100.00</td>
<td>49.92*</td>
<td>7</td>
<td>15.21</td>
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</tbody>
</table>

Finding 4.2.1:
Bahraini students reported themselves strongest in Meaning Making, followed by Changing and Learning and Creativity and quite strong in Strategic Awareness, Critical Curiosity and Learning Relationships. Their mean score for Resilience was significantly lower.
4.2.2: Comparisons between teaching groups (pre-intervention)

Finding 4.2.2:
There were few significant differences between the teaching groups on entry to the project. The Foundation Students (I and II) reported themselves as stronger in Creativity and Learning Relationships than the Degree students, and also more Fragile and Dependent – i.e. the Degree students were more resilient.

4.2.3: Comparisons between genders (pre-intervention)

Finding 4.2.3:
The only significant differences between the genders were that Males reported themselves significantly higher in Critical Curiosity and Females higher in Fragility and Dependence – i.e. the Males were more resilient.

4.2.4 Comparisons between pre- and post-intervention mean scores

Table 3, below, shows the mean scores of the matched sample, post-intervention, in each of the Seven Dimensions of Learning Power, ranging from nearly 83% in Meaning Making, to (still) just over 50% in Resilience.

| Table 3: Mean score of matched cases for each learning power dimension (post-intervention) |  |
|---|---|---|---|---|---|
| N | Minimum | Maximum | Mean | Position | Std. Deviation |
| changing and learning 2 | 211 | 16.67 | 100.00 | **79.3** | 2 | 16.77 |
| critical curiosity 2 | 211 | 29.63 | 100.00 | **67.19** | 5 | 16.02 |
| meaning making 2 | 211 | 33.33 | 100.00 | **82.8** | 1 | 12.72 |
| creativity 2 | 211 | 30.00 | 100.00 | **76.97** | 3 | 14.9 |
| learning relationships 2 | 211 | 19.44 | 94.44 | **66.26** | 6 | 14.47 |
| strategic awareness 2 | 211 | 20.51 | 94.87 | **69.94** | 4 | 15.02 |
| fragility and dependence 2 | 211 | 3.92 | 86.27 | **49.58** | 7 | 16.2 |

* Please note the Fragility and Dependence score is deducted from 100 to give the score on Resilience.
The table indicates the same pattern of strengths and weaknesses across the Seven Dimensions, with each being in the same position relative to the others as in the pre-intervention scores.

Whilst the mean scores in six of the Dimensions have increased to a statistically significant degree, by between 2.2% and 5.5%, the mean score in Fragility & Dependence/Resilience has barely changed.

Table 4, below, makes the comparison easier by setting the pre- and post-intervention mean scores beside each other.

<table>
<thead>
<tr>
<th>Table 4 – Comparison of means of each pair of pre/post scores</th>
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<td>* = statistically significant change</td>
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<td><strong>Pre-means</strong></td>
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<td>changing and learning</td>
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<td>critical curiosity</td>
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<td>strategic awareness</td>
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<tr>
<td>fragility and dependence Resilience</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

Finding 4.2.4: Bahraini students reported themselves as improving to a statistically significant degree in six out of seven Learning Power Dimensions. Resilience, however, which started significantly lower, barely changed post-intervention.

4.2.5: Comparisons between teaching groups (in pre-post differences)

Finding 4.2.5: There were significant differences between the teaching groups in the degree of change they reported from pre- to post-intervention assessments:

The Foundation I Students reported themselves as significantly stronger in all seven dimensions.

Foundation II Students reported significant positive change in Meaning Making.

The Degree Students’ mean scores increased significantly in Changing and Learning, Critical Curiosity, Strategic Awareness and Fragility and Dependence – i.e. the Degree students reported themselves as becoming less resilient.
4.2.6: Comparisons between genders (in pre-post differences)

Finding 4.2.6:
The difference between the genders in the degree of change they reported was limited, in that both genders reported changing significantly in three dimensions in common, whilst each gender reported changing significantly in one dimension not shared by the other:

Males reported significant change in Changing and Learning, Critical Curiosity, Meaning Making and Strategic Awareness. Females reported significant change in Changing and Learning, Meaning Making, Creativity and Strategic Awareness.

4.3 (RQ3) How do students, teaching staff and project leaders respond to the ELLI profile and its associated ideas and strategies?

4.3.1 Data from Students: findings and evidence in support

Finding 4.3.1.1
Students' responses to their profiles and the associated ideas tended to reflect the attention given to these things by their tutors, but most were positive and some were very enthusiastic.

"It helped me to understand how I learn."
"It gives me the chance to think more about myself. ELLI lets you think about everything – seven strategies – not just think about one thing and forget the rest."
"ELL1 makes me realise my weak points and helps me work on myself to get better."
"It helps you to know your weak points; work to be a better person."
"...to realise something you didn’t know before."
"I don’t know (what I remember best about ELLI); the whole experience was good. It changed my life, from school student to adult professional!"
"It makes you feel special! It does matter how you do – mature yourself and develop."
"My second profile is accurate, because I’ve changed so much since coming to Bahrain Polytechnic and this has proved it to me."

Finding 4.3.1.2
Some students expressed a desire for more guidance in terms of strategies for developing their learning power (many did not recall seeing the ‘ELL1 Tips’ made available with the training):

“They should focus on it more and let us talk to people about it – getting advice from other tutors and people."
“We need advice: how to fix it."
“I think there are a lot of positives about ELL1; one tiny problem: we need guidance about what to do next!"

Finding 4.3.1.3
There was wide variation in responses to the surveys and profiles, some students hardly remembering them and many others valuing them highly:

“I remember doing the questionnaire and getting the profile. I don’t remember my profile. It helped me understand how I learn."
“I always take my spider diagram with me and look at it at home."
“It’s very generous. It asks you a lot – wants to know a lot about you. It wants to know specific stuff."
“It helped me to know things about myself that I didn’t know before."
“I can’t say ELL1 has helped me. I can’t remember my first or second profile."
“It made it clear for me. I think it’s really smart, the Spider. It’s made me aware of change, positive and negative.”
4.3.2 Data from Tutors: findings and evidence in support

Finding 4.3.2.1
One tutor expressed himself more confident about not ‘spoon-feeding’ students
“It gave me more confidence to attack the things I was already attacking: student-centred learning. The spider diagrams gave a rationale and supported it.”

Finding 4.3.2.2
One tutor said that the ELLI profiles had helped him to be aware of the qualities of the more effective learners:
“The students with bigger spider-webs ‘rocked’; they were amazing!”

Finding 4.3.2.3
Tutors valued the common language of learning that came with the ELLI Dimensions
“It helps the students to verbalise.”
“... a common language! Now more students have done it, we know it’s out there... can remind ourselves to use it.”

Finding 4.3.2.4
The locally-created, culturally-apt symbols were seen to help students to engage with the ELLI concepts:
“The Bahrainis in the Champions Workshop gave local symbols (to the Seven Dimensions) so students can relate to them. The Falcon is ‘sexy’ for Strategic Awareness! Boys want to be more like that!”

Finding 4.3.2.5
General support was expressed for the purpose of ELLI and its impact:
“It is such a wonderful lead into the development of employability skills and the graduate profile...”
“The attitudes of staff – tutors seeing profiles and linking them with students – was very positive.”
“ELLi material is fantastic for reflective writing – one of the aspects is learning.”
“ELLi has helped us to integrate Learning Development throughout the Academic Skills programme and all the other courses through the Foundation years.”
“I like it. I think it’s really positive. I like the shared terminology and the awareness it brings. Very relevant in Bahrain! We want to give our graduates an edge (there’s high graduate unemployment) and I think ELLi links with that: giving things the employers want.”

Finding 4.3.2.6
Some tutors pointed out ways in which the model could be improved:
“We need to do more to help students to know what to do about it: visual aids and more, repeated, visual prompts – like the calendars!”
“There came a tension between Academic Skills and Academic Programmes. Maybe ELLi should be introduced to them in their mentoring groups. Then teachers need to know about it. It’s most effective in a one-to-one context within a course: for example: someone is struggling with an assignment and us talking to them about their Spider Diagram and talking about their Resilience.”
“The timing needs to be earlier – in the first two weeks. Now ELLi has run, tutors see it adds value. Timing is still an issue ... computer lab bookings ... F1 and F2 have first pick...”
4.3.3 Data from Project Leaders: findings and evidence in support

Finding 4.3.3.1
ELLI can help to integrate Learning Development with academic programmes, especially in Foundation, but needs to be linked more effectively with CPD

"(It is about) pastoral care in an academic context! We need a campaign to change people’s perspective. ‘Content experts’ don’t get it! We have a CTTL. ELLI is not linked closely enough to this."

Finding 4.3.3.2
There is an expressed need for two structural changes to accommodate ELLI more effectively: a) clearer time for coordination and b) space carved out for ELLI conversations:

"Six hours a week has been allocated, but it has been half my job..."
"Then the teaching programme became so pressured due to loss of teaching days...... conversations were squeezed in outside teaching rooms and it fell very unevenly on individuals..."

4.4 (RQ4) To what do these groups attribute any self-reported change in students’ learning power?

Finding 4.4.1
Significant, positive differences were reported by students of the learning and assignments encountered at the Polytechnic compared with previous experiences of formal learning:

"Before, in school, they tell us how to do it. Now we have to do it for ourselves."
"I hated school! Here, I don’t even want a holiday!"
"Now, they treat us as adults."
"Tutors here really 'rock'!"
"The learning style is different from school. In school we were always writing tests; here we have presentations and assignments... where I find things out for myself... It’s better to find information. We interviewed people, searched websites and articles and other reports"

We have more activities. We have to go outside and do interviews with people to get more information."
"We have good opportunities for teamwork – group presentations and assignments."
"Doing the (industry sector) report was good and hard at the same time. It gave a lot of opportunities to improve the learning dimensions; to search for information in the real world and translate it in your thinking into a presentation that other people could understand."

Finding 4.4.2
Many students reported having made conscious changes in their learning methods, which they had initiated themselves in relation to ELLI and one or more of the seven learning power dimensions:

"If I have an assignment, I break it down into a set of steps. In Foundation 1 I used to just work, not imagine steps first. More thinking, less work!"
"I’ve become more flexible, connecting learning with life. I learn from everything. I am more aware of what learning means to me. Before, I might have had one idea about something; now, I might have lots of ideas."
"After doing the first ELLI profile, I tried to improve my skills. I did more teamwork; looking for meaning in everything, asking for answers if I didn’t understand anything, being more sociable in the way I learn – more teamwork. The decision was mine, rather than the way I was taught."
I also made decisions to change. I knew that being bossy would not help me in the future, so I’d need to change it. Maybe the first ELLI profile and the first ELLI reflection (helped).”

The diagram made me more conscious of (Resilience). With difficult things, I used to give up. Now I find my own answers, using my Meaning Making. It’s related.”

“ELLI gave me a great push. My Learning Relationships was low... I tried to be more flexible.”

Finding 4.4.3

Some students attributed reduced profiles in certain dimensions either to ‘recalibration’ of their self-assessment, or to changes in the demands of their courses, making them more aware of their own weaknesses:

“Where the dimensions have got smaller, it’s not because I’ve got weaker but because I’m more aware of the need to improve.”

“Some attributed shrinkage to greater self-awareness, or more accurate answers, understanding the language of the survey (second time around). The drop in Resilience in some of the new Degree students might reflect the higher pressure they are under.” (Two tutors)

“My first profile was probably less accurate as I didn’t take it very seriously. For the second profile, I took it more seriously... wanted to know the changing... I like to learn more than before. I am more motivated to learn than when I arrived.”

“This semester I’m getting more quiet... Expectations are higher. We have to push ourselves even more (linked with reduced Resilience).”

4.5 (RQ5) How effective are the ELLI tool and associated strategies as a mechanism for developing personal and professional qualities and skills required for employability and future life in the Bahrain context?

Finding 4.5.1

Significant personal change was reported by students, often linked explicitly to the use of the ELLI tool and associated strategies, of four principle kinds:

a. Gains in confidence

“...so if I ever feel I can’t do something I remember I can use my Creativity and I am changing...It gives you more confidence.”

“I believed in myself more.”

b. Gains in strategic awareness and critical curiosity

“Now, when I do anything, I try and think about everything!”

“I think I am becoming more organised. I started to make categories for new topics.”

“I was pleased to see my (2nd) profile because I have become more questioning and not staying within the boundaries. I’ve discovered I can learn without limits. I have learned to research and find out about things.”

c. Improvements in relationships and team-working

“I decided to change and have a more positive attitude, using teamwork much more. I use the techniques of teamwork.”

“At first I hated working in groups and I have found that groups are more productive and now I prefer it. I used to do everything on my own and hate anyone interfering. My Learning Relationships score has gone up significantly.”
d. Enhanced self-awareness and conscious moves to self-improvement

"[ELLI)...also enhanced my self-awareness – knowing where I am – helped me to develop myself more: knowing where I am weak ... helps you to change it...and I know we need it in the work environment, not just here in university.”

"Knowing my profile has helped me to achieve lots of things – to know my capabilities.”

"I became more open-minded... I would read more widely, research the net, find out something from different perspectives. It’s nice to know things from other people’s perspectives.”

"ELLI makes me focus on myself as a learner and makes me see what I have to do to get better.”

Finding 4.5.2

Tutors also saw ELLI profiling as a way of raising self-awareness for students and, in one case, for the tutor too:

"The ELLI spider-web is a consciousness-raising exercise; they are made aware of something!”

"It increased their self-awareness of learning.”

"It helped with self-awareness. The Guided reflection will bring it home.”

"...awareness of who they might be as a learner...”

"...students’ greater awareness and understanding of themselves as learners and discussing strategies to address weaknesses.”

"I guess it’s helped with my self-awareness – I looked at my whole learning... I realised how valuable my learning has been in my subject and other areas, not just academic.”

Finding 4.5.3

Project leaders saw ELLI is seen as being able to help measure progress towards employability:

Learning Development and its relationship with employability development... To find an effective tool... to measure and promote these in a meaningful way... Another key: establishing a profile of a Bahraini student so we could see what we are dealing with and not just impose our ideas of ‘Western’ development.”

Finding 4.5.4

Relationships were seen by tutors to be impacted positively:

"Mentoring built rapport.”

"One difference was in the Learning Relationships area: a greater willingness to ask for help from the Academic Skills team.”

Finding 4.5.5

ELLI is seen as offering a tangible strategy for improving learning effectiveness and addressing weaknesses:

"The profile opens discussion of ‘Why this has happened and how can we prevent it happening again?”

"(ELLI) has changed my practice. I’m aware now of all the different aspects, looking for areas they’re weak in and working to reinforce them.”

"The ELLI material is fantastic for reflective writing – one of the aspects is learning...”

Finding 4.5.6

ELLI can help students to become ‘pro-active’ rather than ‘re-active’:

"How to move from a ‘reactive’ to a ‘forward-planning’ mindset? Making appointments and being more strategic; pro-active about knowing their learning needs and getting them met. This has the same roots as the issue about mentoring. Students don’t want pre-arranged meetings but do want instant solutions when problems arise. ELLI has helped to illuminate this issue!”

"ELLI helps students to understand things they might have had a sense of before but only now can articulate.”

"I see ELLI as part of an employability portfolio: students (being) empowered to articulate.”
4.6 Selected Case Studies

These Case Studies have been selected from the sample of Degree Students who contributed to the qualitative data collection, for their relevance to the findings above and capacity to illuminate them.

4.6.1 Student 1

This profile illustrates the theme, reflected in the quantitative findings, of initial low Resilience, repeated in the second profile, despite relatively high self-report and significant gains in most other dimensions.

![Figure 1: Pre- and post profile for Student 1: Foundation 2 to first year ICT Degree Student](image)

Very high self-reports in Changing & Learning and Meaning Making are often associated with high achievement (in formal assessment, curriculum etc) and when low Resilience is associated with these, it is most likely to be about anxiety, inexperience of (and therefore fear of) failure, sometimes feeling like giving up and, possibly, being somewhat dependent on support and structure (though the raised Learning Relationships score suggests not too much problem with dependence – or isolation).

This particular learner (a first year ICT Degree Student) said ‘I think I am being harder on myself (now)’ and also admitted to looking up to her parents and learning a lot from them – especially her father. This might indicate a dependence, contributing to Fragility and Dependence, or lower Resilience. Other students talked about the struggle at the start of their Degree courses, with stricter tutors and higher stakes – all of which could explain the dip in Resilience. The large gains in Critical Curiosity, Strategic Awareness and Creativity may well be through lengthy assignments in Foundation 2 that required them to seek out information for themselves, design their own enquiries and do things their own way – not being spoon-fed, or learning by instruction! She was surprised and pleased with how much she’d developed in these dimensions.

4.6.2 Student 2

This profile illustrates the theme, reflected in the qualitative findings, of significant change in some key dimensions, stimulated by challenging aspects of the course and learning environment and supported by awareness of learning power through the ELLI profiling.

“This (Business Degree) course opens your eyes to ask questions and find the meaning, get to the bottom of everything. It really helps! This semester, for example, we have worked on ‘Globalisation’. The tutor helps us question everything. Is there a hidden agenda? Don’t just believe the surface. Before, if someone in higher authority said something I’d believe it to be true, but not now necessarily.
As for ELLI, in the beginning, I thought it was for the tutors and the university and we wouldn’t get anything out of it. When it was explained to me, I saw I can learn more about myself and develop. It’s important to know what you’re getting into. When I completed my second profile I didn’t feel I was growing as a learner. Now I think better, yes, but the course is still not challenging enough to change my Changing and Learning Relationships.”

4.6.3 Student 3

This profile and the student’s commentary illustrate the impact of the ELLI profile, language and ideas on students’ ability to articulate and accept responsibility for their own learning, moderate their interactions with others and seize learning opportunities.

“I believe the (spider) diagram is really true. It really presents what’s happened to me.

Firstly, my Learning Relationships have improved. When I came to Bahrain Polytechnic I didn’t like working with groups. It was awful! No one was doing their jobs. This time we chose people we didn’t know but we can work together, feel like a team and get the benefit of learning together. We complete each other like soul mates!

My Critical Curiosity especially has improved. In the first semester they were asking us to do critical reading. This taught me to look at articles deeply and look at each letter. Even my mother criticized me for asking too much. I usually prefer to be quiet and listen but when I speak I come out with really strong questions. My friends call me naughty because I turned the conference upside down.
ELLi made it clear for me. I think it’s really smart, the Spider. It’s made me aware of change, positive and negative. It’s like a wake-up call – a mirror to yourself.

My Resilience has improved a little. I applied (a second time) for a scholarship for which I had been short-listed the first time and it raised my expectations. I’ve learned never to expect anything. I failed again because I didn’t plan enough. My Strategic Awareness has gone up because I failed and learned from failing.”

4.6.4 Student 4

This profile and the student’s commentary reflect ways in which the more advanced students have developed skills for employability, becoming more aware, self-reflective, inquiring and collaborative and able to articulate this with maturity and confidence, referring to the learning power dimensions.

"First when we did ELLi it was very difficult for me to do it; I had to think hard about everything. The second time it was clearer, easier to understand, faster. My second profile is accurate, because I’ve changed so much since coming to Bahrain Polytechnic and this has proved it to me. At first I hated working in groups and I have found that groups are more productive and now I prefer it. I used to do everything on my own and hate anyone interfering. My Learning Relationships score has gone up significantly.

I have changed my Critical Curiosity because of the critical thinking (in the course), such as for reports: we have to ask questions and find things out. I had personal communications with people in the USA and UK – significant people. I was pleased to see my (2nd) profile because I have become more questioning and not staying within the boundaries. I’ve discovered I can learn without limits. I have learned to research and find out about things.

My Strategic Awareness has improved – exactly! In the last semester, I didn’t organise myself very well, always leaving things till the last minute. I’ve learned through the Small Business Experience. We won 2nd prize. It changed me a lot. I realised that you have to think and plan ahead to meet deadlines. Sometimes I lost marks for this before.

ELLi has made me want to change even more. I would now like to have more Resilience and Critical Curiosity. I think I’ve changed a lot. I didn’t think about joining (Youth) programmes before. I’ve learned that experience is more important than theoretical knowledge. I ask hard ethical questions now and people are relieved when I stop!"
5 DISCUSSION OF FINDINGS

Firstly, with reference to the first Research Question, it is important to note the extent to which the ELLI Inventory has demonstrated its reliability for this Bahraini population. The face validity of the profiles was generally high. There is some further work to do to improve item reliabilities for the Learning Relationships dimension, but the reliabilities are mostly at a very acceptable level, or better. We can therefore assume that the ELLI scales are measuring what we take them to measure and have reasonable confidence in the validity of the data under discussion.

The quantitative findings are interesting in themselves. Uncannily similar to those of the first ELLI action research project to be conducted outside of the UK (in a Malaysian Sixth Form College), there are three findings that stand out above the rest. Firstly, in terms of mean scores the learning power of the Bahraini students is generally by no means weak, even on entry (Resilience apart). Secondly, it increased significantly as they experienced the courses and interventions designed for them between their first and second profiles. Thirdly, Resilience was the exception, both on entry and in remaining virtually unaffected by the interventions.

Hypotheses have arisen in discussion, including the possibility of a ‘syndrome’ of identifiable, anxious, dependent high-achievers (again echoing the Malaysian study). The devising of targeted strategies for addressing this must be one of the first actions to consider in following up the project through a second year. Another possibility is of a link between fragility as a learner and the preservation of ‘face’ and reputation in an Arab culture. This would fall into the sensitive area of the Polytechnic’s balancing role in equipping its students for employability in a global market place whilst celebrating and preserving all that is valuable in their cultural heritage. A third and clearly related possibility is reflected in some of the degree students’ narratives: that some of these students’ self-reports reflect a moderate but real sense of inadequacy in the face of new challenges and higher expectations. If so, then we might expect their Resilience scores to improve dramatically as and when they finally graduate successfully.

Looking at the pre-intervention mean scores, the lack of significant difference between those of the Foundation 1 and Foundation 2 groups weakens the case for suggesting that the Polytechnic’s first Foundation Year was increasing students’ learning power significantly. The greater Resilience of the Degree students is interesting, but then they reported themselves as weaker in Creativity and Learning Relationships than their younger fellow students, raising the possibility that, at this pre-intervention point before the project began, formal learning was depressing some aspects of learning power, in line with findings elsewhere (Small, T. & Deakin Crick, R. 2008; Deakin Crick, R. & Yu, G. 2008). The gender differences were unremarkable.

Where comparisons both across the population and between the groups become stronger and most interesting is in the pre-post differences. There is significant strengthening in six of the seven learning power dimensions for the population as a whole. This would appear to support the efficacy of interventions designed and implemented during the course of this project and, at least in part, inspired by it. These included making more explicit links between the learning power dimensions and the Polytechnic’s many strategies for fostering employability skills. So the gains might be attributed both to the Polytechnic’s integrated and strategic approach to academic and personal skill-building across its programmes and to the introduction of the ELLI-related language, conversations, strategies and self-assessments, which made it possible for students to recognise and articulate their personal learning development as well as to experience it.

The pre-post differences also reveal wider variations in the learning power gains between the teaching groups than was apparent between them in their mean scores
on entry. The Foundation 1 students outstripped the others in terms of positive change, reporting significant gains in all seven dimensions. The Foundation 2 students reported significant gains in Meaning Making alone. The Degree students (as well as seeing themselves as less resilient) reported significant gains in Changing and Learning, Critical Curiosity and Strategic Awareness, interestingly three of the four dimensions that research has associated with countering underachievement in formal education. The implication is that, perhaps unsurprisingly, Foundation 1 offers greatest scope for strengthening students’ sense of themselves as learners, while such gains become harder to win until the transition to Degree courses, which offer a fresh and more relevant set of challenges and opportunities, including a renewed sense of ‘being in the midst of struggle’.

The qualitative data, whilst giving some helpful, practical pointers for improving the methodology and optimising the impact of ELLI, is both overwhelmingly positive and generally supportive of the quantitative findings just discussed. The verbatim quotations are a delight to read, many being like a window into those moments in students’ lives when they become aware of their own potential and excited by it. They have acquired a language, partly thanks to the ELLI tool and conversations in support of it, with which they can articulate a sense of themselves as learners and critique and appreciate the learning environments and opportunities they encounter, some of which are clearly engaging, powerful, challenging and in stark contrast to their previous experience of formal education.

The students’ responses to the ELLI tool and profiles were generally positive and occasionally very enthusiastic, though there is an obvious link between the commitment and enthusiasm of the tutor and that of the group. As expected, the most positive cases occurred where the purpose of using the tool was well explained and quality conversations followed, helping students to interpret their profiles and relate them to their learning experiences. There were also calls for more guidance on how to develop strengths in the learning power dimensions and not all students had come across the strategies and ‘tips’ available. This raises implications for staff briefing and student mentoring. Whilst many staff are already well briefed in the ELLI ideas and strategies, the process of embedding them in practice across the institution, via the staff induction and continuing professional development programmes, is ongoing. Student mentoring, whilst a strong policy priority, has not yet met the challenge of being seen by students as a regular and welcome entitlement, associated with learning and academic success. The use of ELLI profiling as a framework for mentoring has been found in previous studies to be one of the most powerful interventions and is now being applied effectively to leadership coaching in the corporate sector. As the language and practice of learning power become embedded and accepted here, their application through coaching or mentoring, in parallel with the pedagogy, might both help to change perceptions of mentoring at the Polytechnic and anchor the ‘employability project’ in powerful personal change programmes, owned by individuals, supported by the institution.

The power of personal testimonies best justifies persistence with this endeavour. Students reporting on personal change and proactivity, both at the end of the first semester and a few months later reflecting on their second profiles, were unconsciously but unequivocally endorsing the ethos of the Polytechnic and the values of the project. Their words (of which here a brief selection) speak for themselves:

“...I’ve become more flexible... open-minded... I am more aware of what learning means to me... I did more teamwork, looking for meaning in everything... asking if I didn’t understand... being more sociable in the way I learn... I also made decisions to change... have a more positive attitude... Now I find my own answers... find out something from different perspectives... I know we need it in the work environment... ELLI gave me a great push! ELLI makes me focus on myself as a learner... see what I have to do to get better.”
Most educators and most employers would want to ‘cork up’ these attitudes to learning and take them everywhere if they could! What the ELLI experiment has done in the Polytechnic, so far, is to confirm its relevance to the institution’s core goals, demonstrate its efficacy with individuals and potential to influence the culture, produce measurable positive change and raise practical questions about how widely and deeply it can and should become embedded in practice. It provides a strategic agenda in terms of monitoring and building students’ resilience and paves the way for an even more important, longitudinal study into the impact of these ideas upon individuals and the community over time.

6 CONCLUSIONS AND RECOMMENDATIONS

The project has largely answered its five Research Questions: establishing confidence in anticipation of the validation of ELLI in Bahrain; characterising the student population and its sub-sets in terms of learning power on entry; investigating and analysing the impact of a range of interventions on that learning power and demonstrating the relevance and effectiveness of the ELLI tool in the strategic development of personal and professional qualities and skills for employability.

The impact and efficacy of the ideas and interventions have varied, as is normal, in line with the quality of their implementation. Where strongest, the impact has been overwhelmingly positive, fully justifying the confidence of the Polytechnic’s leadership in the relevance of the ideas to its purpose.

Already, lives and learning journeys appear to have been changed for the better by this project. The scope for building on it and extending its impact are clear, through strategic communication channels with staff and students and by means of further research and development. Incorporating ELLI profiles into e-Portfolios would be a significant enhancement. A ‘coaching for learning’ methodology, with the ELLI profile as the starting point, to frame a mentoring programme with enhanced academic credibility, might be the single most effective advance. Highlighting resilience and helping identified students to address their fragility and dependence will add a particular focus, informed by these Year 1 findings. Continuing with an enquiry-based approach will enable success to be tracked and measured, ‘building in’ self-evaluation. Important work at the University of Bristol on ‘authentic enquiry’ for personalising learning would complement and reinforce what has been achieved in this project. The prospect of longitudinal research to investigate impact on individuals, groups and the institution over time is particularly exciting and could provide evidence to inform and support a role for the Polytechnic in promoting and disseminating a tried and tested approach to enhancing employability throughout the Middle East.

The realisation of such aspirations will clearly require investment in the partnerships already formed and the internal co-ordination, leadership and change processes of the Polytechnic. What has been achieved in a relatively short time so far should give confidence in the potential of this work to offer a handsome return on that investment.
7 REFERENCES AND FURTHER READING

Deakin Crick, R. (2009) Pedagogical Challenges for Personalisation: Integrating the Personal with the Public through Context-Driven Inquiry Curriculum Journal, 20, 3 Special Issue