Report and analysis of Digital Literacies Workshop

Digital Literacies workshop was developed for delivery to students. The cohort was first year undergraduate members of the School of Systems Engineering, at the end of their first year of study (after their exams and other academic work was complete).

The workshop was designed and run on the basis of this outline:

Duration 1:40 (nominal)

Learning goals

Understand need for continuous improvement of digital literacies
Recognise importance of self assessment
Understand the Pirate Model of learning (AAAAR!)
Understand importance of Digital Literacies for Employability

Outline

Introduction, covering definitions and employability aspects (10 mins)
Brief Self-assessment exercise (10 mins)
Introduction to online wiki self-assessment tool and Passport systems - walkthrough (20 mins)
Opportunity to access online wiki self-assessment tool and give feedback (20 mins + 10 mins for leg stretching!)
Questions/Discussion regarding online tools for assessment (10 mins)
Pirate model & Reflective practice (20 mins)
Questions/Discussion (10 mins)

Bring Your Own Device! If at all possible, bring a web-enabled device with you. If you blog/tweet, please use #UoRDigLit hash tag, and feel free to 'live blog' or use social media as a back channel for discussion.

The workshop is designed to introduce the notion of Digital Literacies and reflective practice, and provide learners with the opportunity to start to develop their reflection skills, as well as assess some aspects of their Digital Literacies. It is an opportunity to develop a deeper understanding of the importance of digital skills and behaviours, as well as developing reflective practice which is a key skill for self-directed life-long learning.

And it has a Pirate Model of learning... Assess, Analyse, Acquire, Articulate, Reflect - AAAAR!!

For practical, timetabling, reasons the sessions were split in to two parts, and the cohort was divided in to groups. During the first session, the students were asked to complete a

questionnaire, to gauge their level of familiarity with the concepts, and to determine what effect, if any, the session had.

61 students started the survey at the beginning of the sessions with 57 completing it. 57 started the survey at the end of the session with 55 completing it. Coupled with different attendance patterns, this gave 49 sets of survey results which could be fully compared.

The data collection was not without issues. Some of the students (approximately 4 or 5) were disruptive, and despite apparently regarding the exercise as a waste of time before it even started and arriving late, they attended both of the sessions to which they were allocated. It was apparent that their survey responses were not designed to be helpful to the study, and efforts have been made to exclude their contributions. However, some of the apparently peculiar responses were from students who were not obviously being deliberately disruptive in their answers.

The surveys were supported with a small number of interviews, conducted 6 months later to gauge the impact of the session, and a control survey was done with students who had not had the workshop.

It has been observed that learners self-view of their abilities are often not in keeping with an observer's opinion. Typically those who rate themselves highly are over-confident, those who actually know the material rate themselves fairly lowly, as they are aware they could know a lot more, and those who know very little often rate themselves around the middle of the range. If the session raises awareness of their actual ability level, we would expect to see some changes in self-reported ability level. Those who initially report highly should see themselves as less adept than they first thought, those who reported least confidence should become aware that they are better than they thought (at least in relation to the cohort) and those who were initially in the middle ground should decrease their self-view slightly. Of course, there are also some with a reasonably accurate self awareness, and they are less likely to alter their ratings.

Figure 1 Change in personal confidence in digital literacy v initial confidence (Likert scale,

In the control group, where one would expect to see no change, 2 students reported being 1 point less confident and 2 students reported being 1 point more confident (not significant).

In response to the question asking for agreement levels with “I learn new computer skills quickly and easily”:

I learn new computer skills quickly and easily

	Per cent Answered
Strongly Agree	33.33%
Agree	45.61%
Agree slightly	17.54%
Disagree slightly	1.75%
Disagree	1.75%
Strongly Disagree	0%

Figure 2 "I learn new computer skills quickly and easily" before the session

I learn new computer skills quickly and easily

	Per cent Answered
Strongly Agree	25.46%
Agree	49.09%
Agree slightly	25.46%
Disagree slightly	0%
Disagree	0%
Strongly Disagree	0%

Figure 3 "I learn new computer skills quickly and easily" after the session

There is a similar correspondence to the digital literacy ratings, with those who are initially most confident showing a drop in their score, and those who were least confident increasing their self assessment:

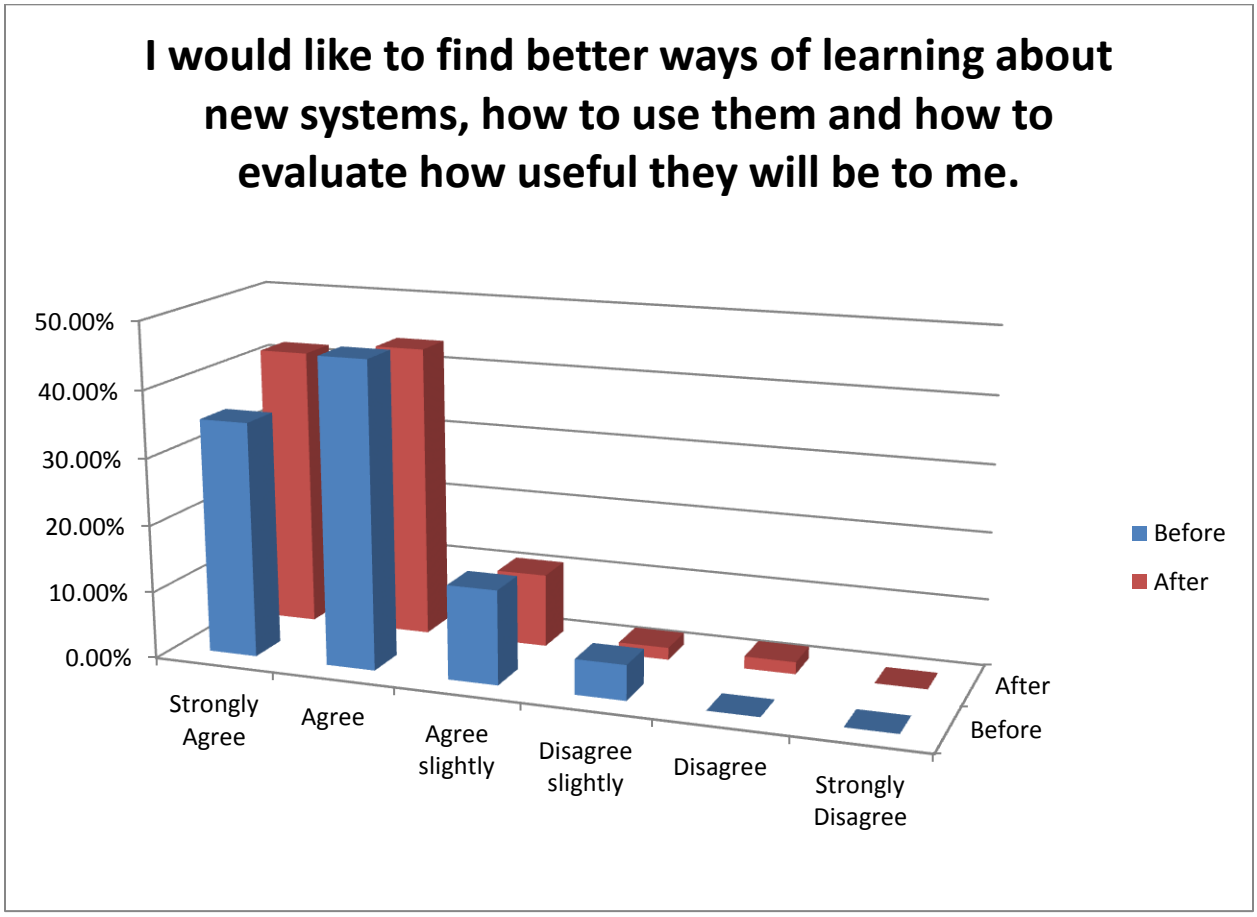
Figure 4 Learn new skills quickly and easily (change v initial rating)

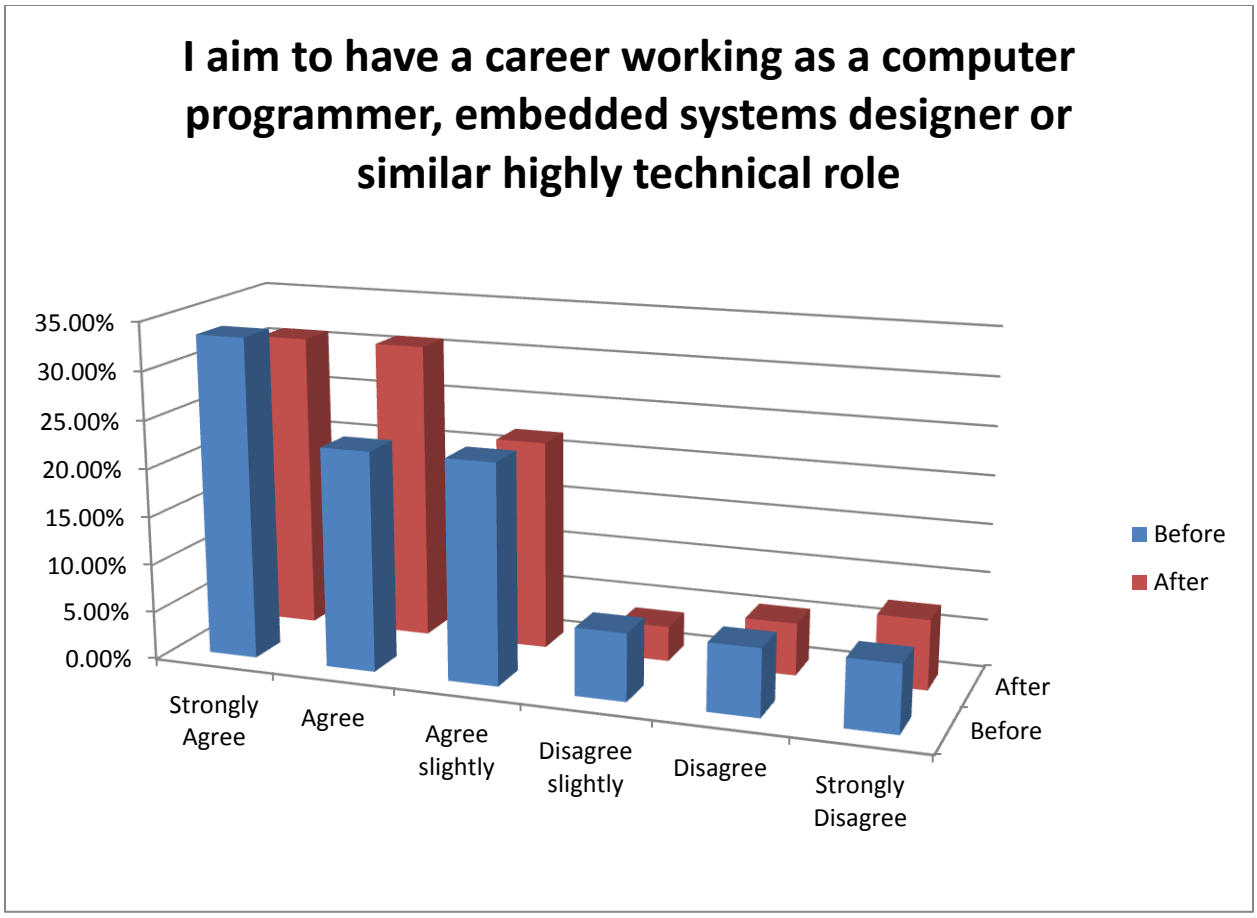
Again, in the control there was no significant change (1 decrease by one point, two improvements by 1 point).

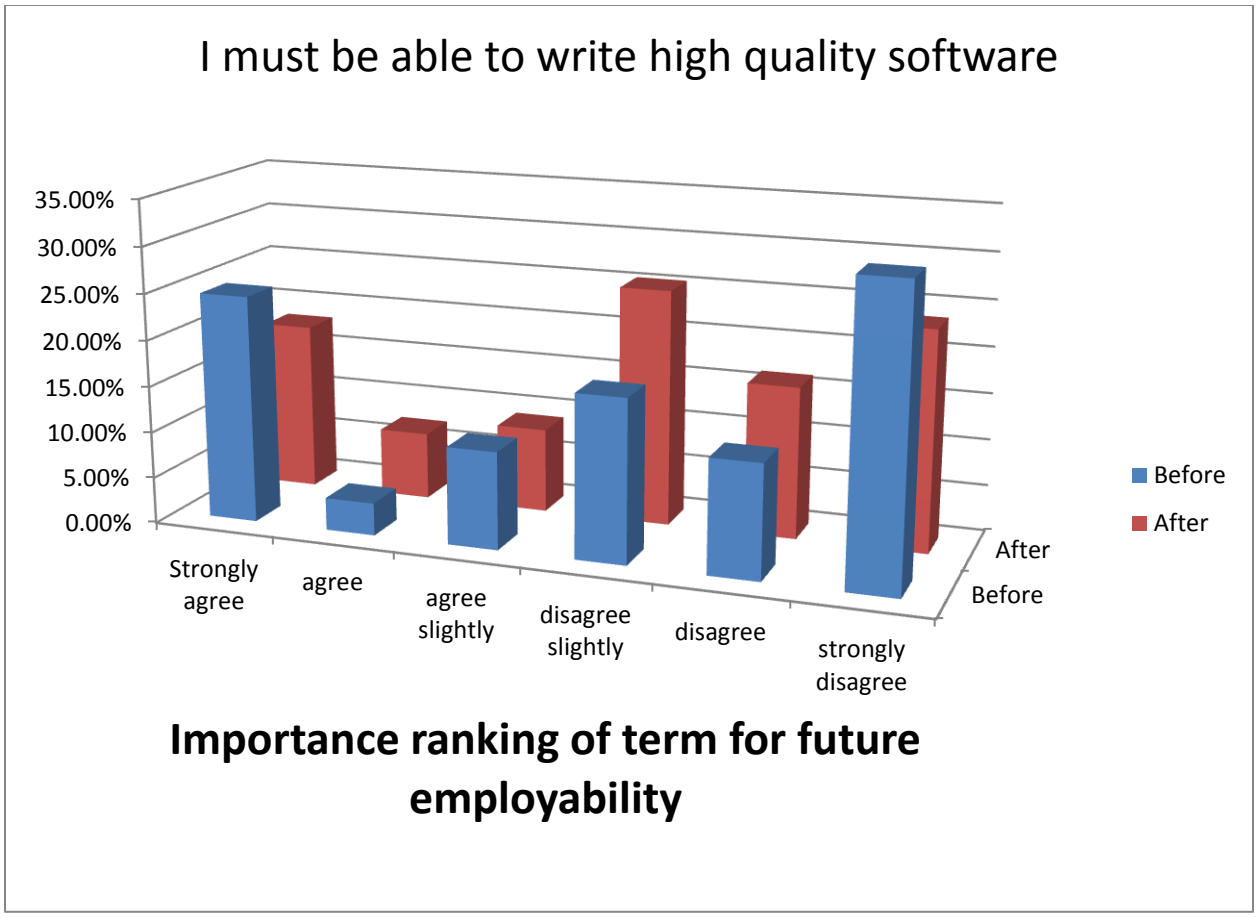
Similar trends were seen in all paired responses. Those who regarded themselves as low end reported greater confidence, and those who deemed themselves already expert generally gained a more realistic view.

Interviews with 4 of the respondents indicated that

a) The session had been regarded as 'quite good fun'
b) 3 respondents had spent some time exploring new software as a result
c) All 4 respondents believed it was their responsibility to learn new digital skills (only 1 had initially considered it their responsibility)
d) 3 of the respondents considered it useful to teach others digital skills, to enhance their own knowledge and as part of a mutual learning network
e) 2 of the respondents had slightly anomalous survey responses (they had rated the Digital Literacy definition about "The ability to use your fingers to help you read or do mathematics" more highly *after* the workshop, which was not a desired outcome!) but they were not aware of this, and had not intended to give flippant responses. This suggests that there is a margin of error (not currently accounted for) in survey responses.




I aim to have a career working as a computer programmer, embedded systems designer or similar highly technical role
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
Disagree
Strongly Disagree
After
Before
Before
After


I must be able to write high quality software
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly agree
agree
agree slightly
disagree slightly
disagree
strongly disagree
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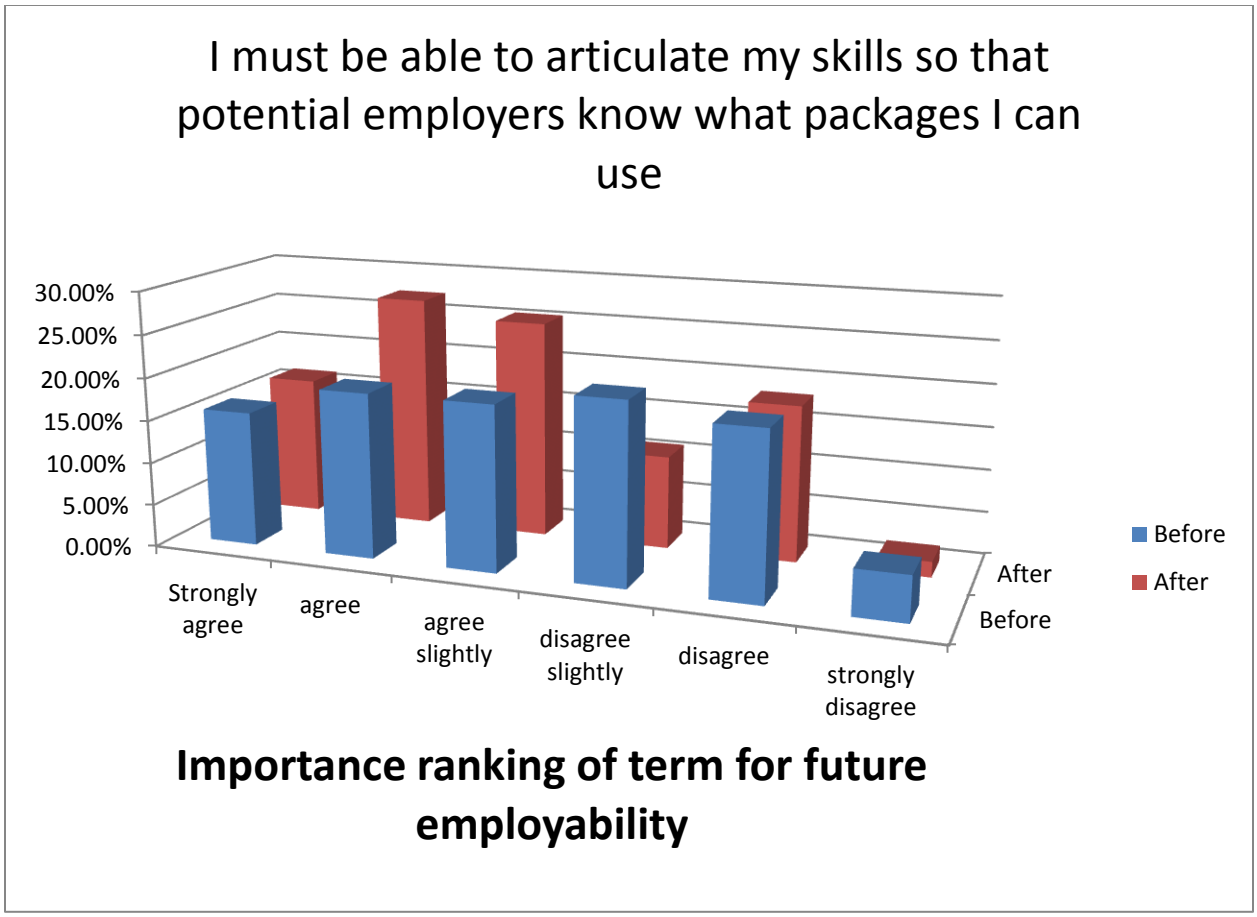
Importance ranking of term for future employability


I must be able to articulate my skills so that potential employers know what packages I can use
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly agree
agree
agree slightly
disagree slightly
disagree
strongly disagree
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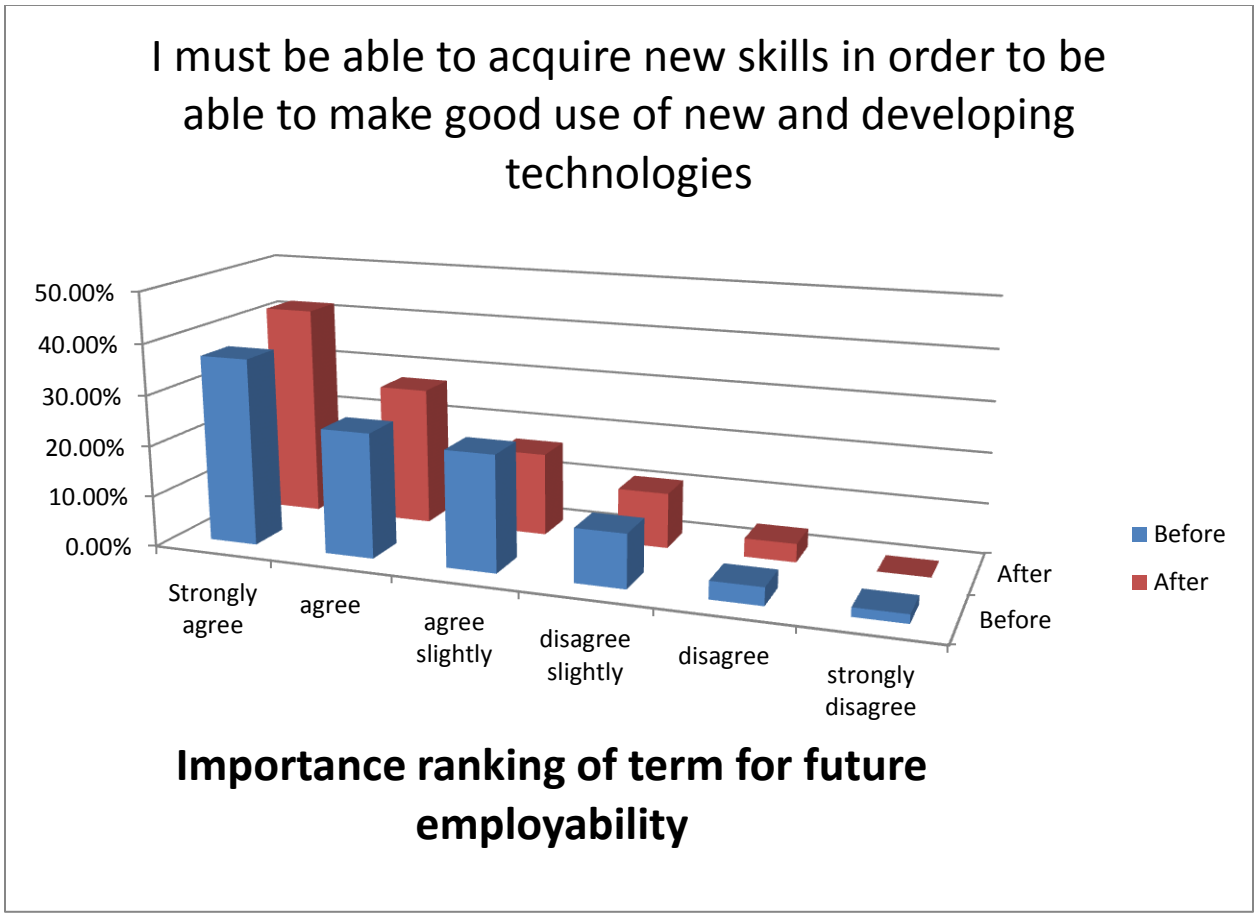
Importance ranking of term for future employability


I must be able to acquire new skills in order to be able to make good use of new and developing technologies
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Strongly agree
agree
agree slightly
disagree slightly
disagree
strongly disagree
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Before
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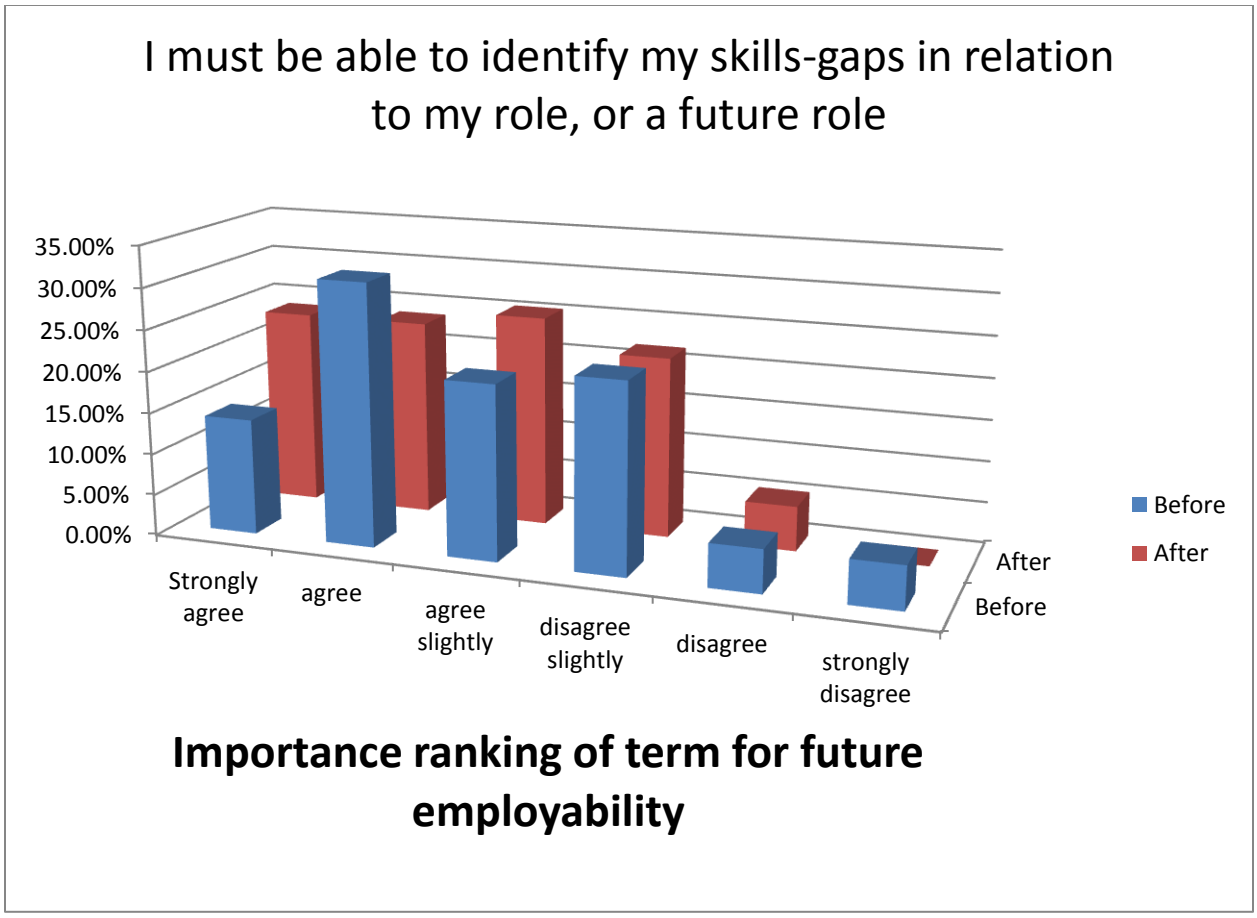
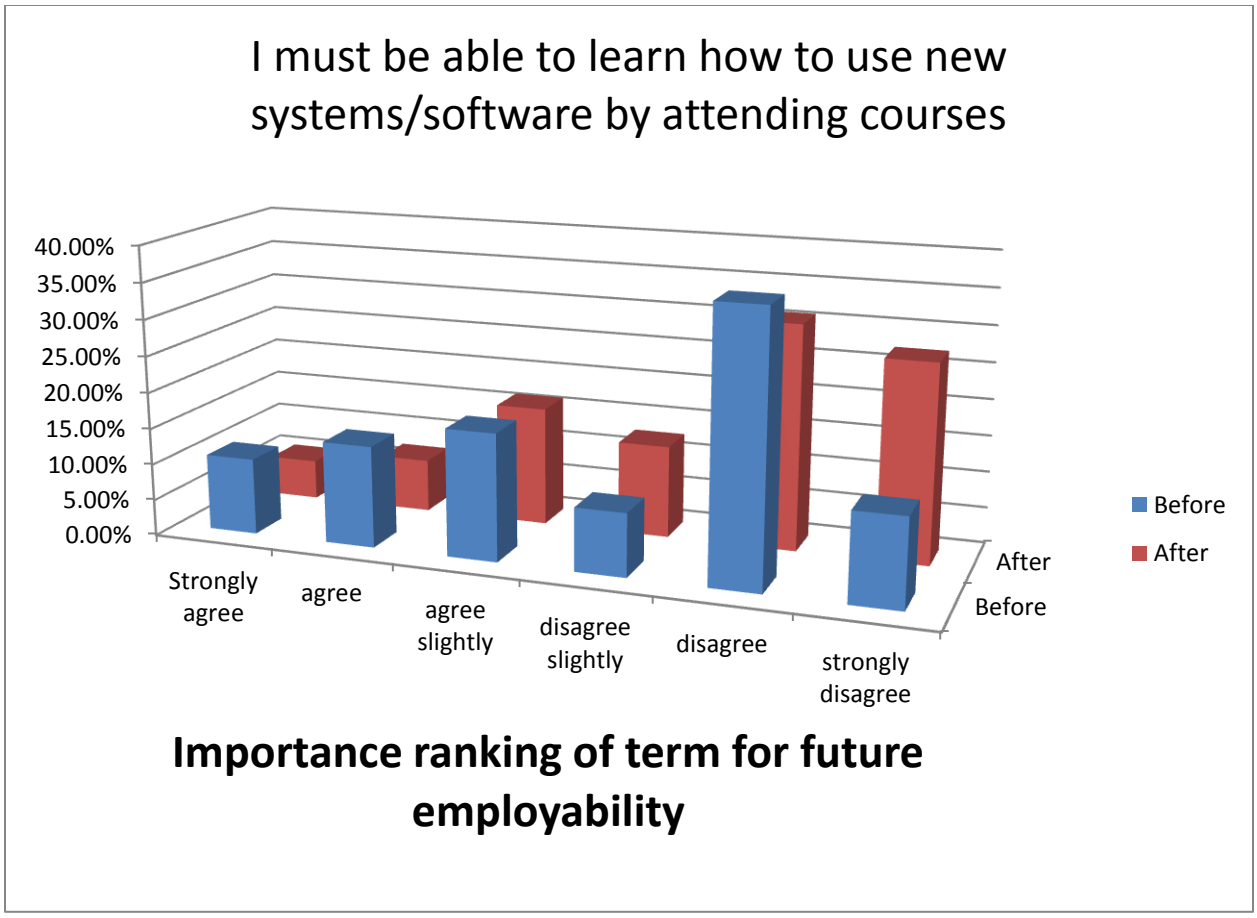
Importance ranking of term for future employability


I must be able to identify my skills-gaps in relation to my role, or a future role
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly agree
agree
agree slightly
disagree slightly
disagree
strongly disagree
After
Before
Before
After
Importance ranking of term for future employability


I must be able to learn how to use new systems/software by attending courses
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly agree
agree
agree slightly
disagree slightly
disagree
strongly disagree
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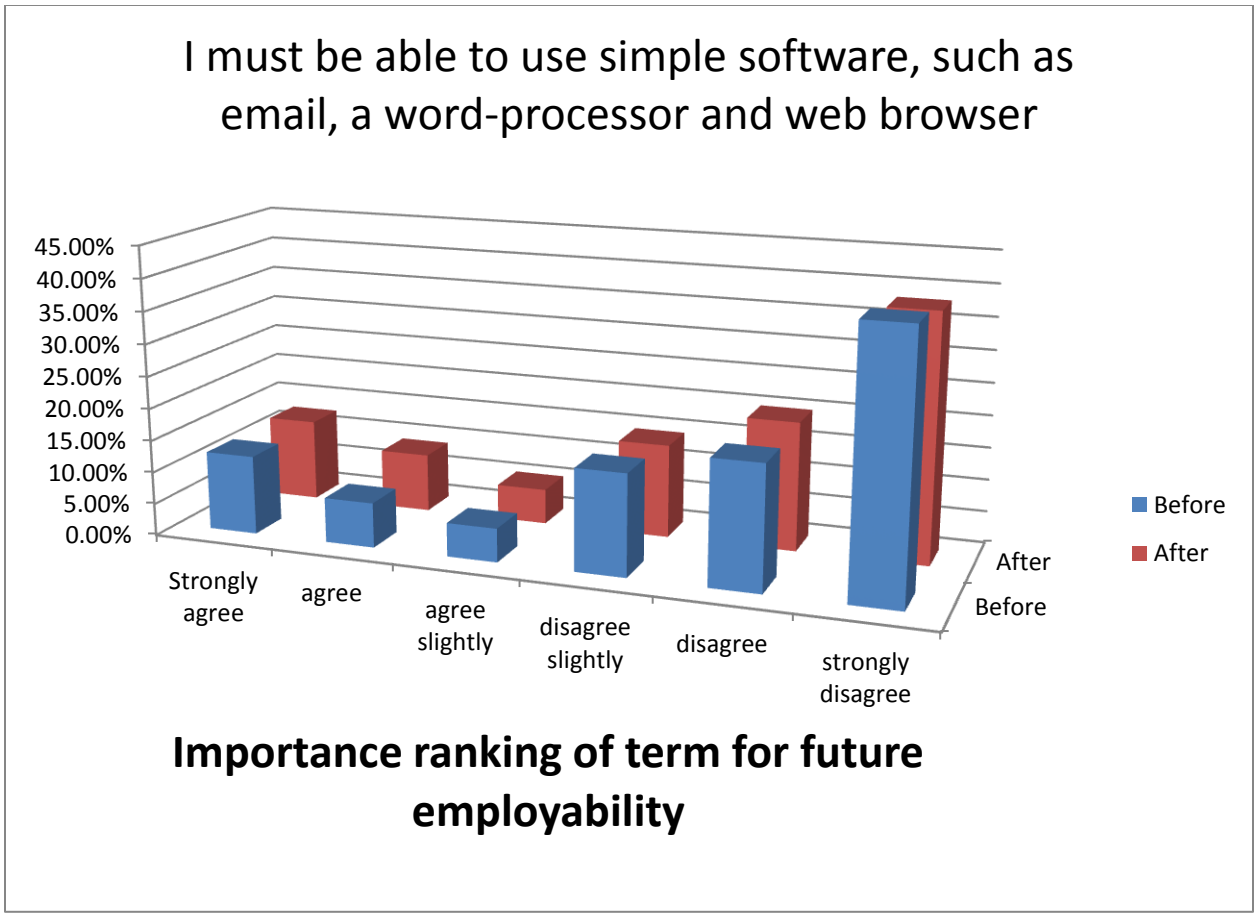
Before
Before
After
Importance ranking of term for future employability


I must be able to use simple software, such as email, a word-processor and web browser
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly agree
agree
agree slightly
disagree slightly
disagree
strongly disagree
After
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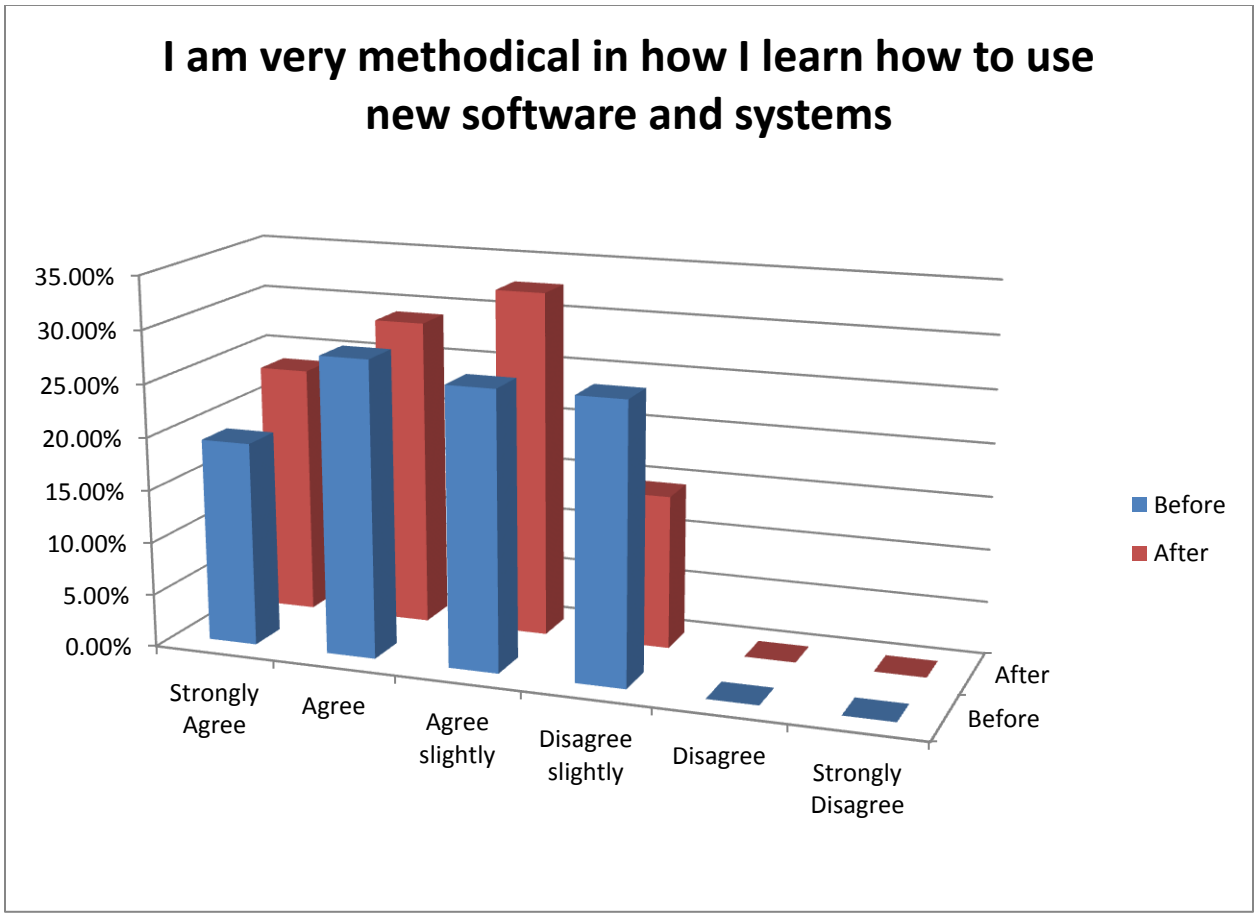
Importance ranking of term for future employability


I am very methodical in how I learn how to use new software and systems
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
Disagree
Strongly Disagree
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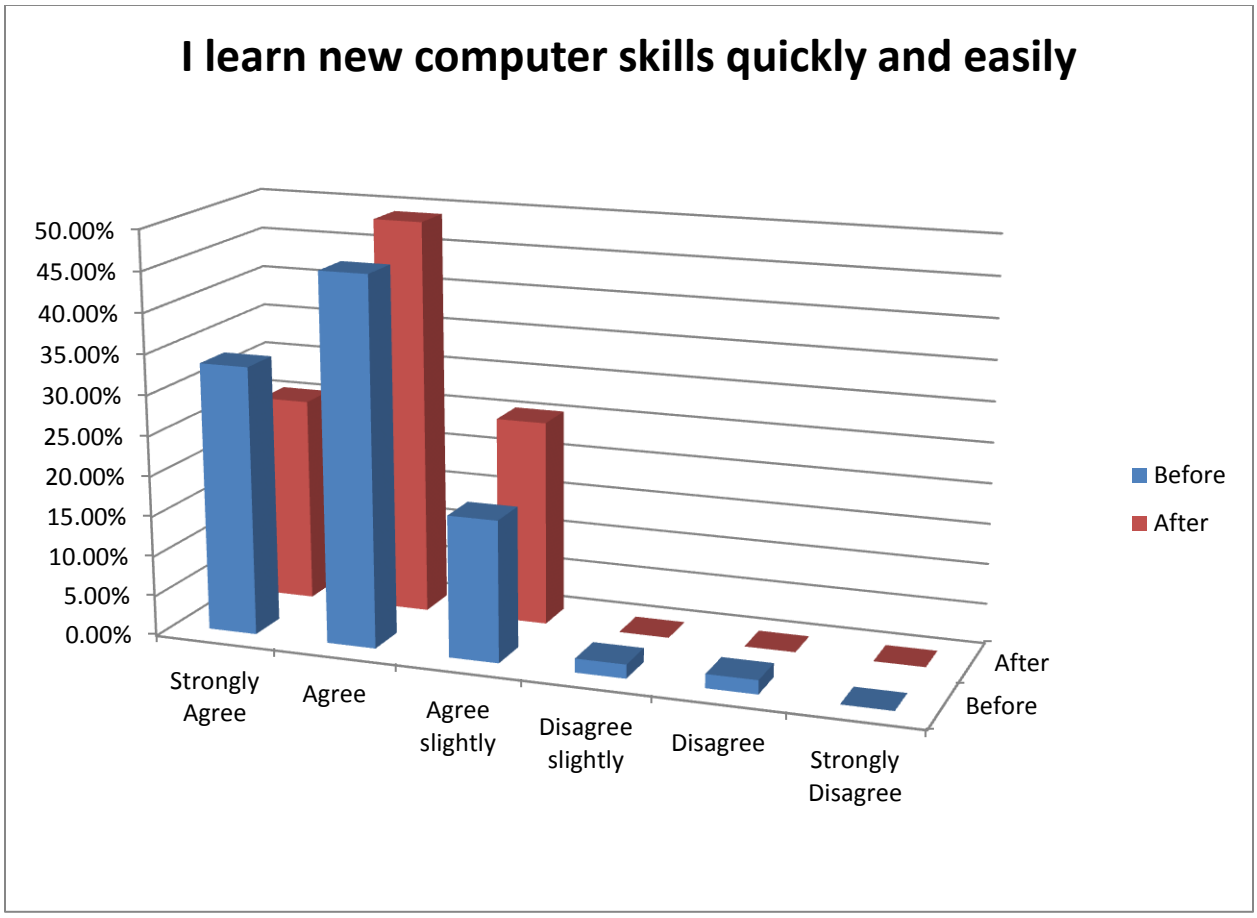
I learn new computer skills quickly and easily
50.00%
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
Disagree
Strongly Disagree
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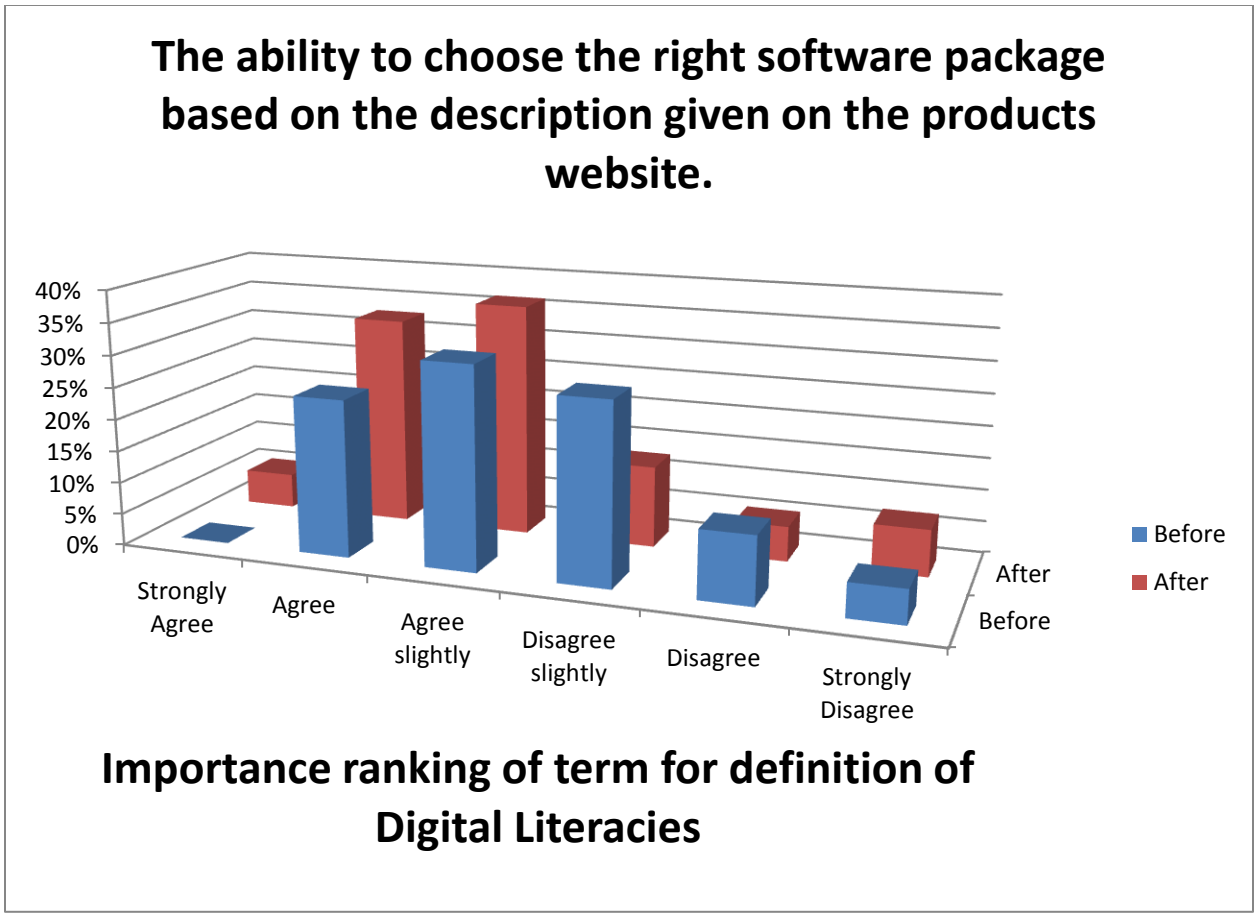
The ability to choose the right software package based on the description given on the products website.
40%
35%
30%
25%
20%
15%
10%
5%
0%
Strongly Agree
Agree
Agree slightly
Disagree slightly
Disagree
Strongly Disagree
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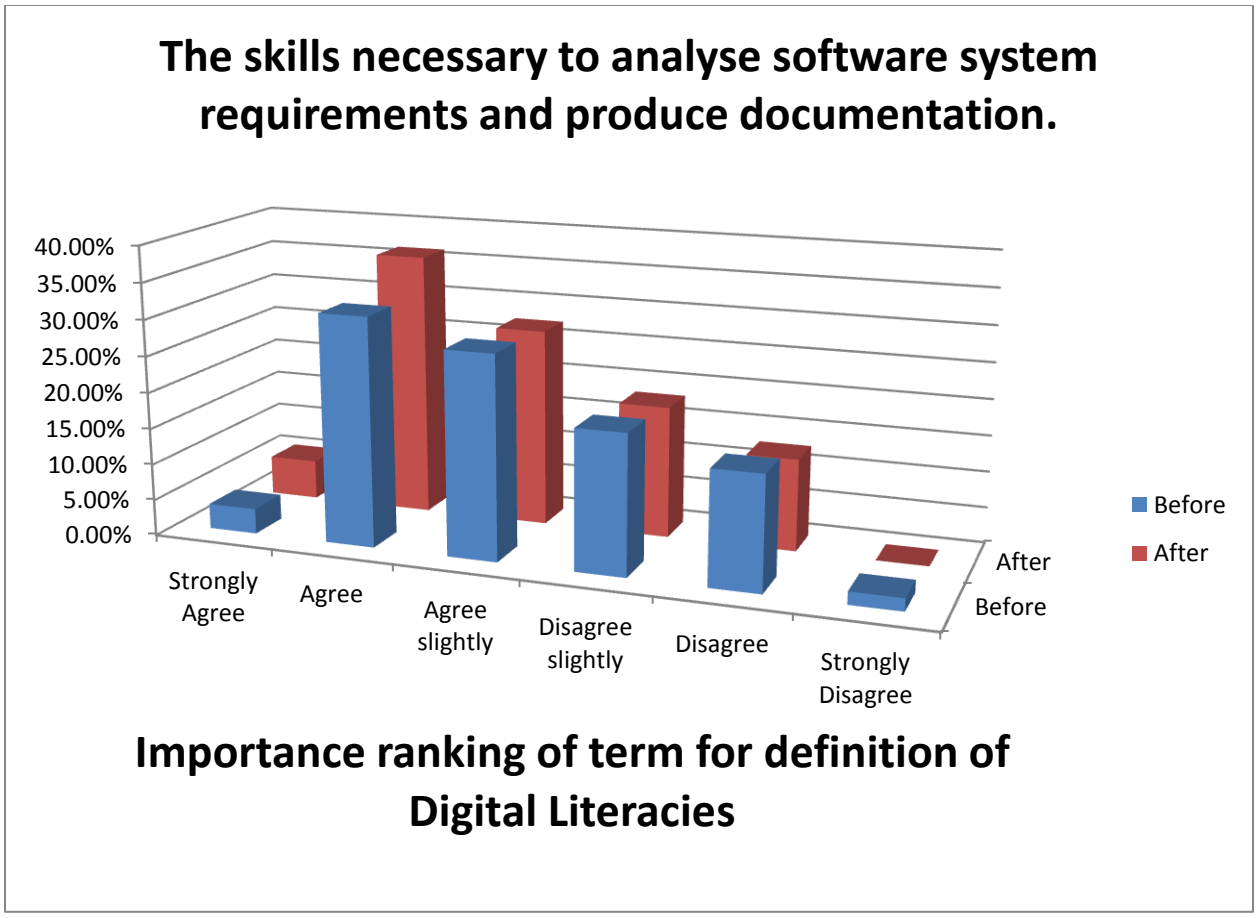
Importance ranking of term for definition of Digital Literacies


The skills necessary to analyse software system requirements and produce documentation.
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
Disagree
Strongly Disagree
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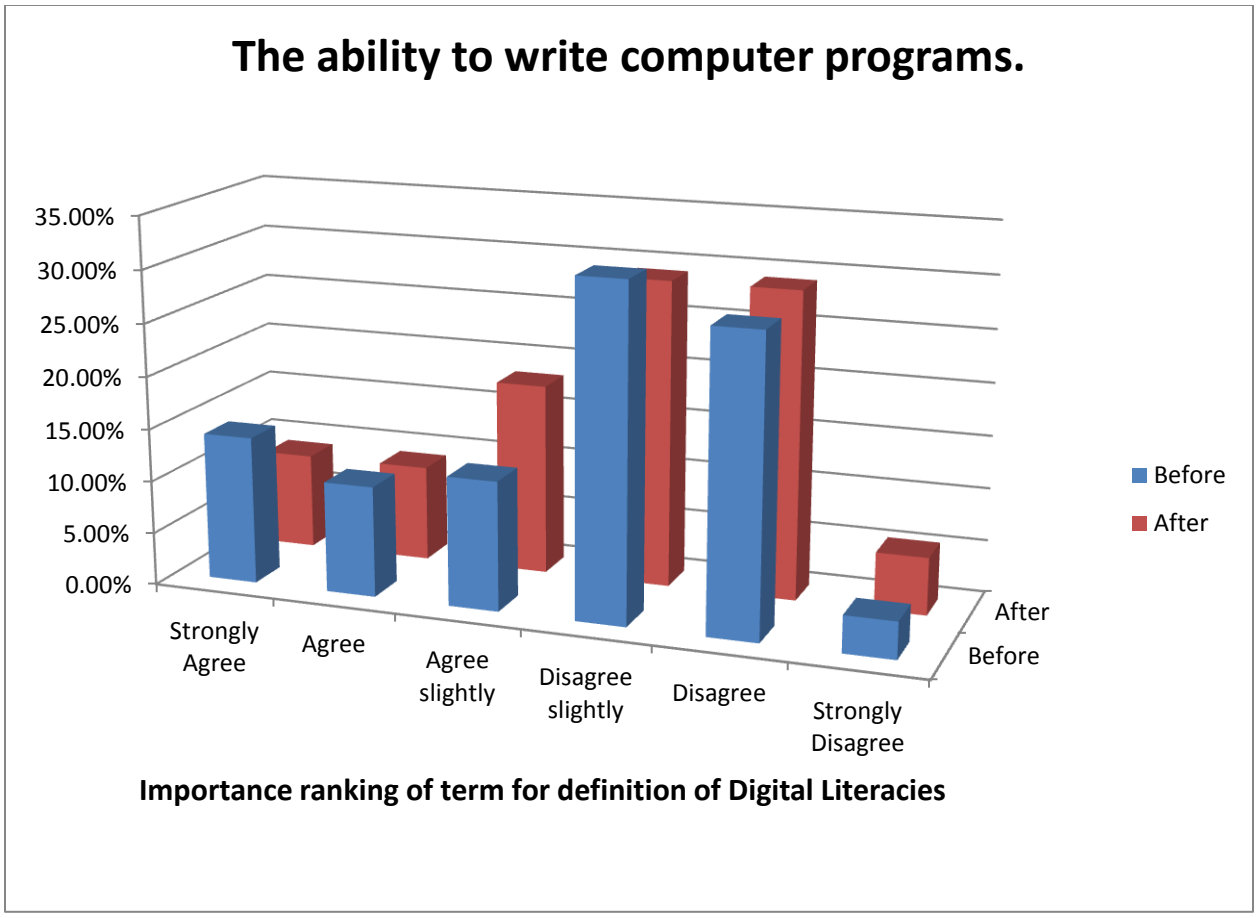
Importance ranking of term for definition of Digital Literacies


The ability to write computer programs.
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
Disagree
Strongly Disagree
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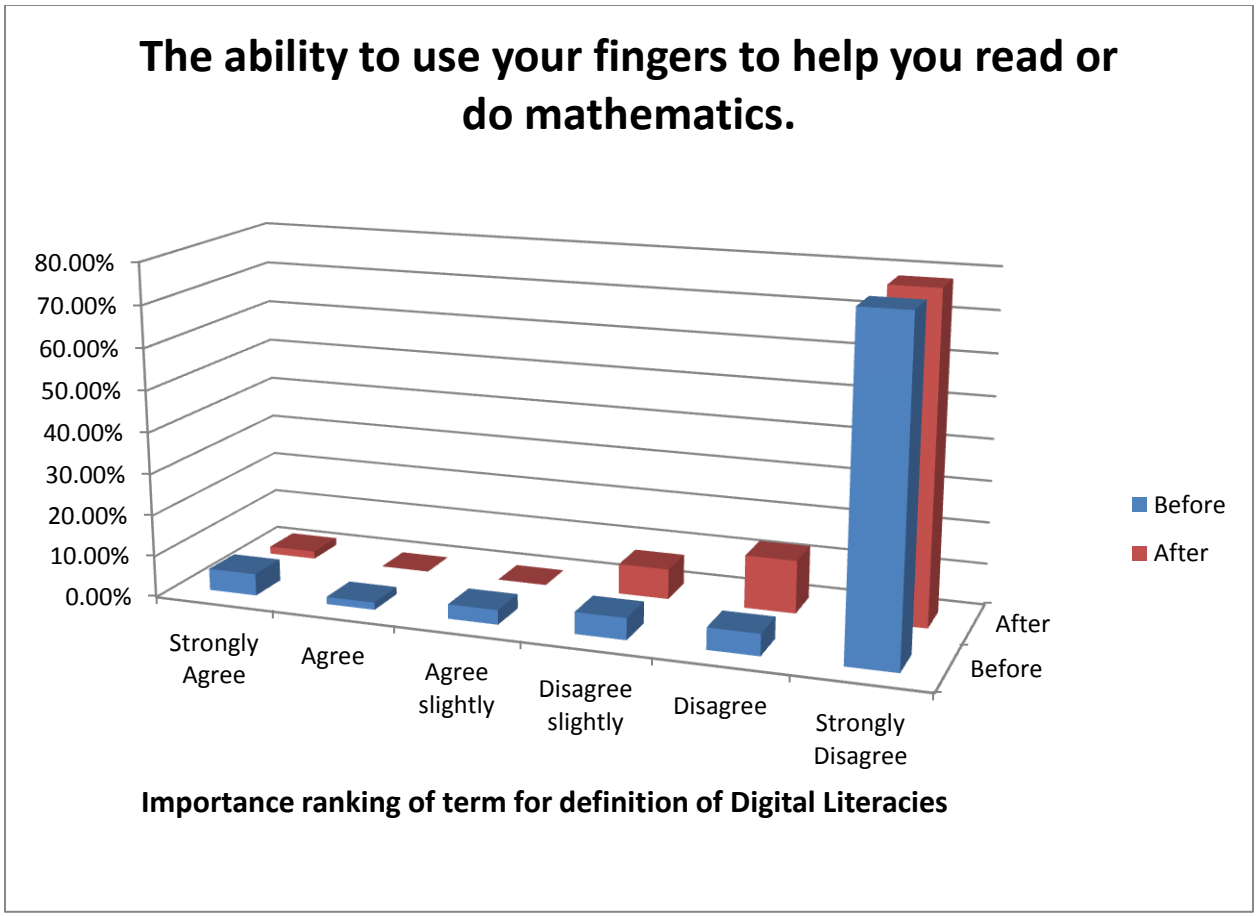
Importance ranking of term for definition of Digital Literacies


The ability to use your fingers to help you read or do mathematics.
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
Disagree
Strongly Disagree
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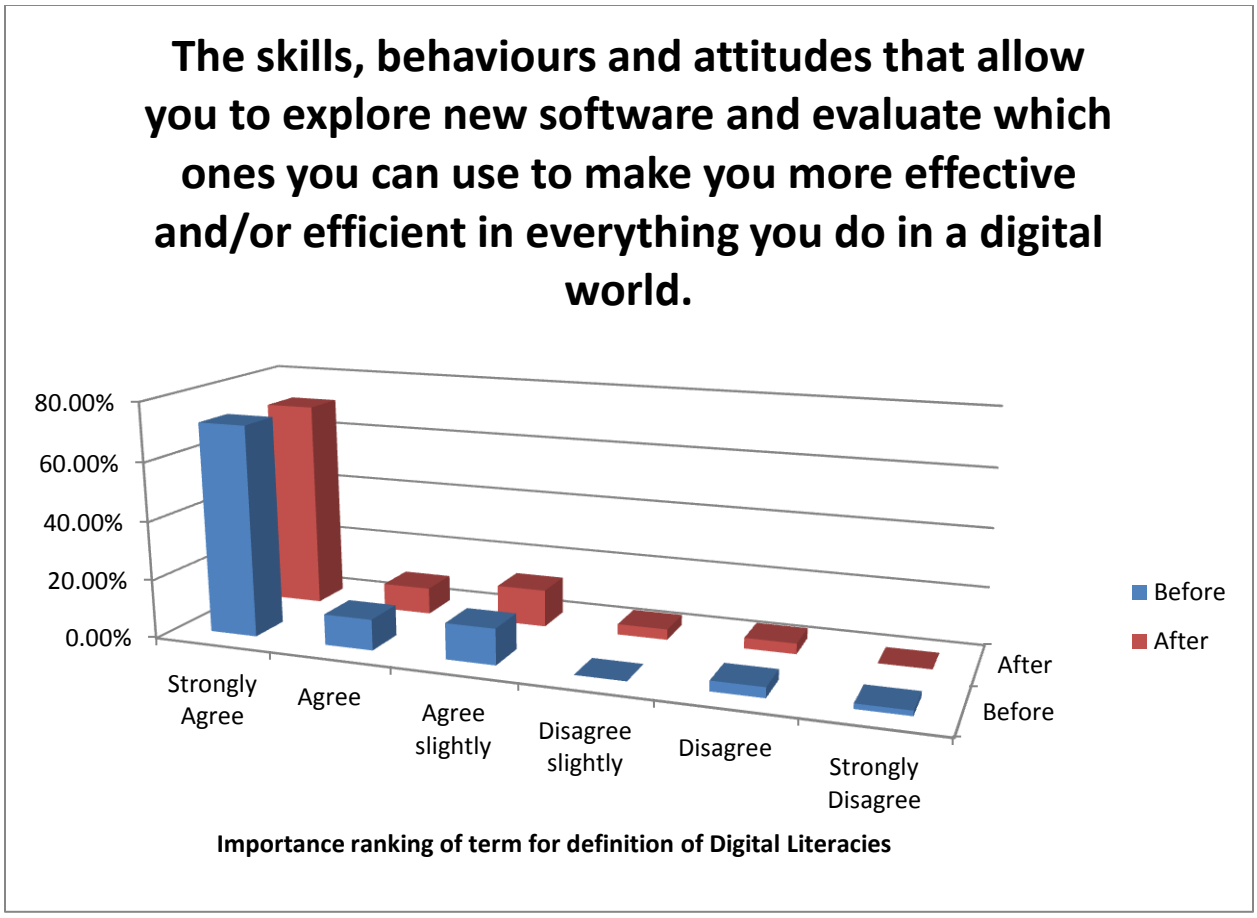
Importance ranking of term for definition of Digital Literacies


The skills, behaviours and attitudes that allow you to explore new software and evaluate which ones you can use to make you more effective and/or efficient in everything you do in a digital world.
80.00%
60.00%
40.00%
20.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
Disagree
Strongly Disagree
After
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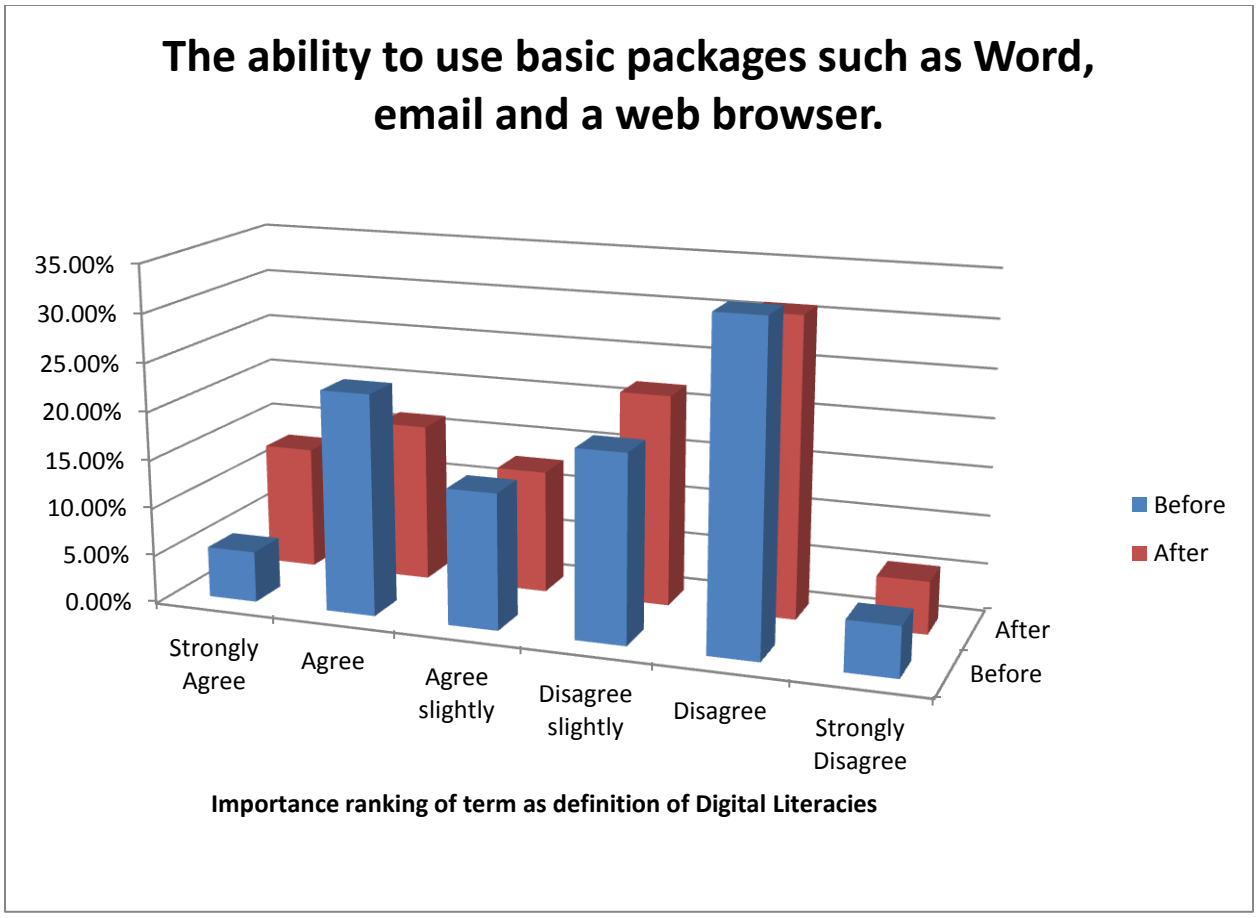
After
Importance ranking of term for definition of Digital Literacies


The ability to use basic packages such as Word, email and a web browser.
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
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Strongly Disagree
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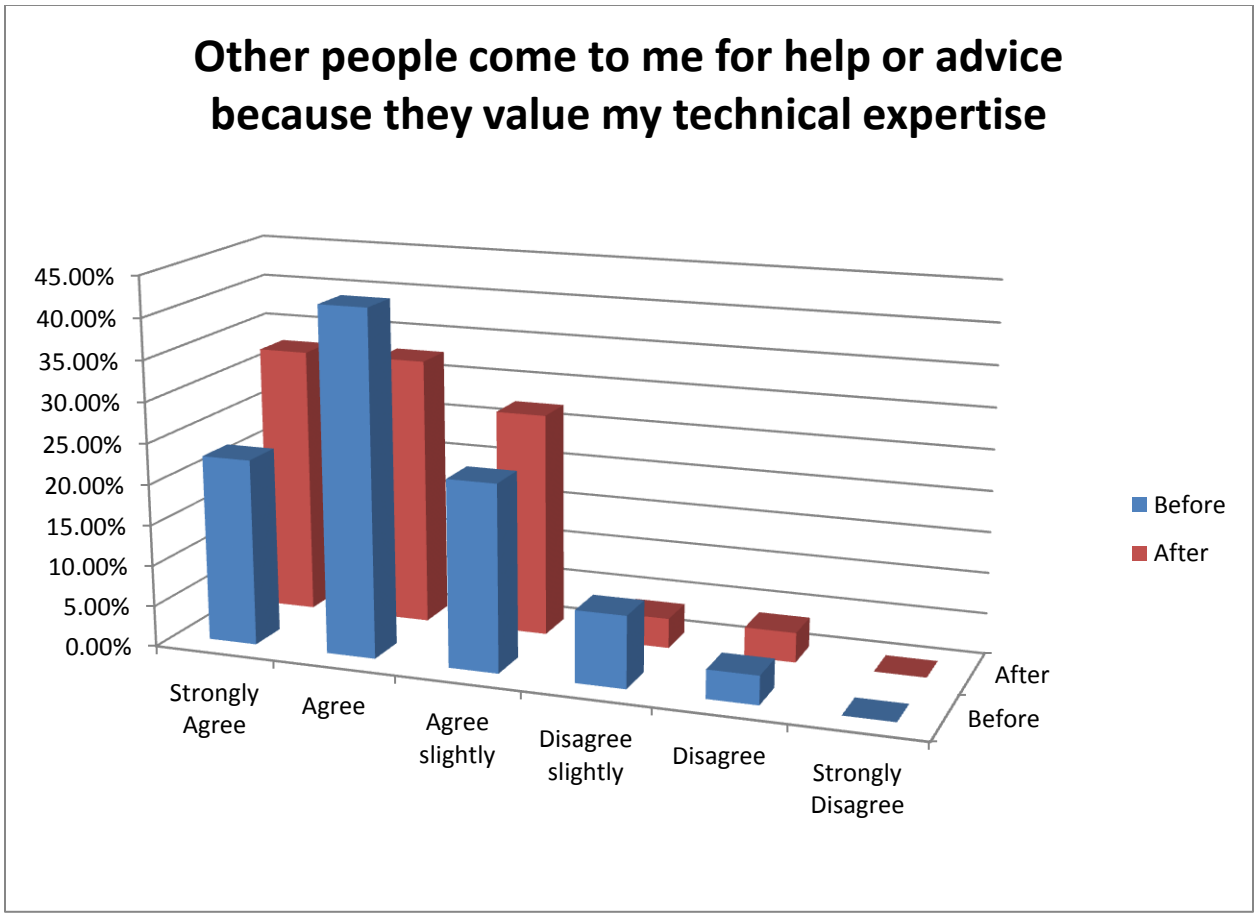
Importance ranking of term as definition of Digital Literacies


Other people come to me for help or advice because they value my technical expertise
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
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Strongly Disagree
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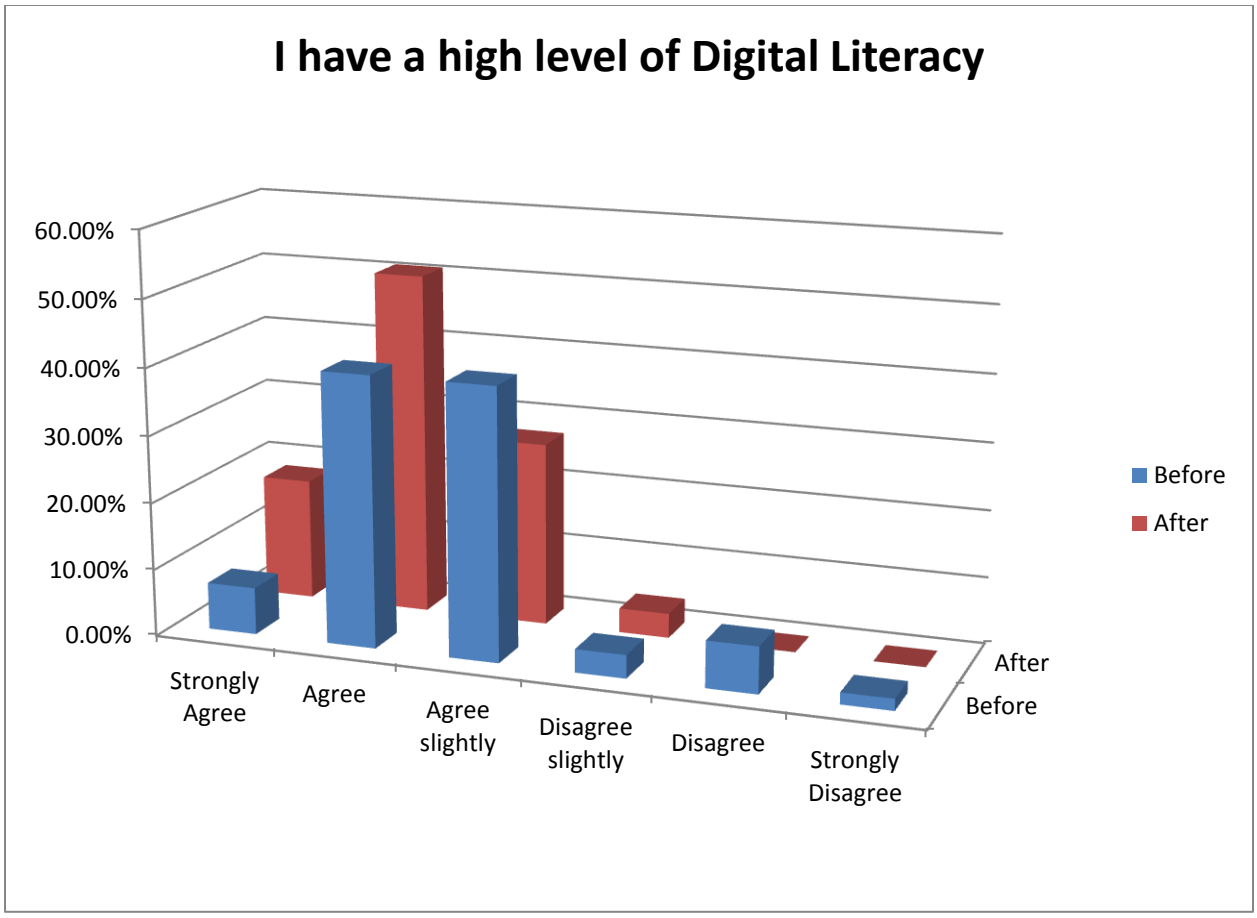
I have a high level of Digital Literacy
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Strongly Agree
Agree
Agree slightly
Disagree slightly
Disagree
Strongly Disagree
After
Before
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