Technology in Learning and Teaching
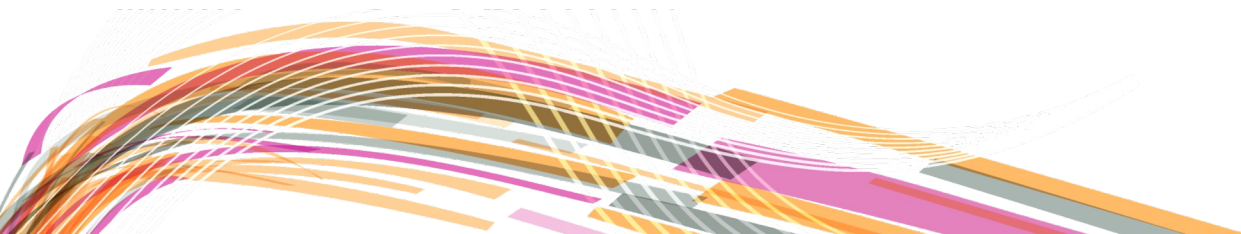## Tools not Toys

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Overview

E-Learning for these adults? Yes!
Key factors for success

Illustrations

- Mobile phones
- Productivity software & photos
- Web sites
- Social networking
- Computer games
- Blend redesign
- Space redesign

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With collaborative note taking in this public Google Doc:
http://tinyurl.com/ACE-e-Learning

Key message

E-learning *is* relevant to and useful for most adults with literacy needs. But this relies on a learning programme that is carefully designed to fit each individual's needs and lifestyle, his or her proficiency with digital technologies, and his or her level of reading literacy. Our R&D has identified 7 key factors that are essential to successful e-learning:

1. The adult's lifestyle (across life roles)
2. The tutor's pedagogic goals
3. The tutor's e-learning proficiency
4. The purpose & culture of the organisation
5. All other locations where learning takes place, including the home
6. Co-evolution of literacy and digital technologies
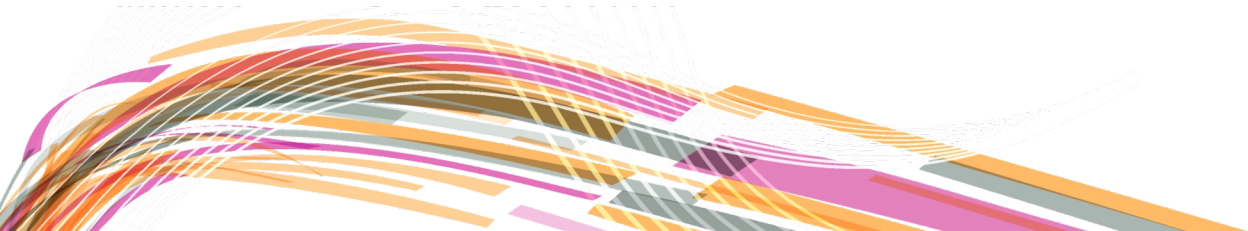7. Ongoing professional and organisational development

# New literacies are emerging with digital technologies

Internet has meant that the online, networked environment has become an intrinsic part of acquiring information and sharing and gaining knowledge.

Using and accessing the Internet and computers place more demands on individual literacy skills.

Internet use requires different types of reading skills both for recreation and employment.

# Social context profoundly shapes how literacy adapts and changes.
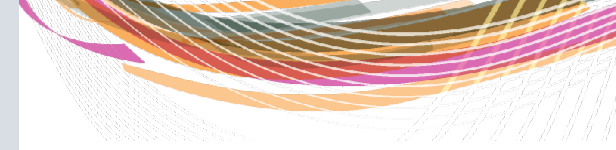
Many adult learners live in homes surrounded by social and developing digital technologies.

This generation of adult learners use the Internet and Instant Messaging (IM) to foster and support social relationships (Baird & Fisher, 2009).

Twenty-first century literacy demands that students can create and construe meaning within complex multi-modal digital environments.

Changes in reading and writing activities require students to critically evaluate information in increasingly social contexts such as IM and the Internet (Rhodes & Robnolt, 2009).
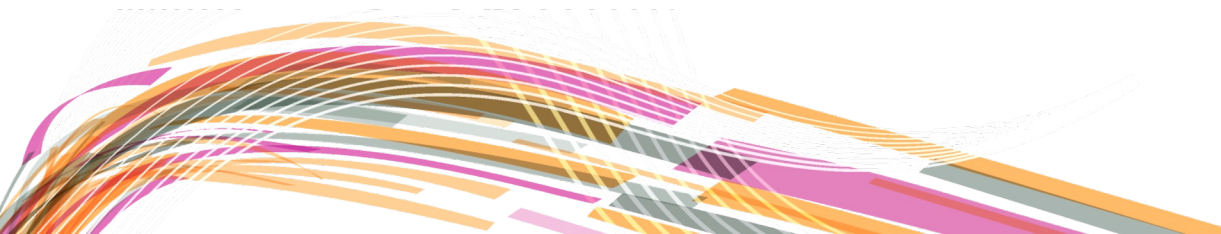
1. Computer-related strategies provide new opportunities to meet learners' individual needs

The adult education tutors had used e-learning to re-engage and motivate students in a variety of ways to suit individual needs.

The Internet, Skype and Google Applications- Google Docs and Google Calendar, etc.

Tutors working in a rural environment with a trucking firm reported that the majority of drivers left school at 13-15 years of age. One tutor explained:

"A lot of the drivers had big gaps in their learning and big chips on their shoulders. The big macho thing...you've been hiding all your life... We got around their reluctance [to study and learn] by asking them would they like to improve their computer skills."

Our collaborative note taking in this public Google Doc: http://tinyurl.com/ACE-e-Learning
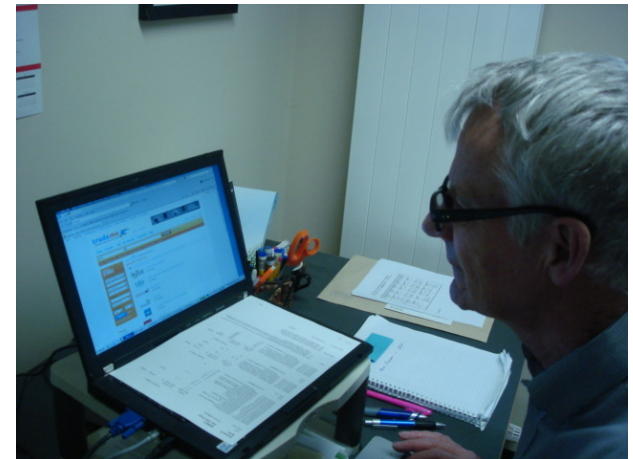
The tutors utilize computers as an e-learning tool to further engage the learners

A tutor at a workplace described a student who was particularly timid and likened the computer to a wild animal, *but* eventually got so 'hooked' on interactive games that he had to be rationed. The tutor said:

"He was spending too much time on it ... I had to get him off it all the time."

Another tutor described how a student became engaged through wanting to buy a car. He learnt how to use the *Trade Me* site (*Trade Me* is a New Zealand on-line auction website). The workplace tutor noted:

"That opened the door and... then he thought, 'Oh that's not so scary after all,'... and then he was willing to use it (the computer) for word searches."

Skype
SKYPE

★★★★ 271,357

Free

OPEN

MANAGE

Content rated for: Medium maturity
Version 2.5.0.108   September 29, 2011
10.31MB   10,000,000+ downloads

The tutor assessed about 22 people across the three companies and found that 18 (2 women and 16 men) of them were eligible for workplace literacy and had no, or low qualifications. One of the tutors, a former primary and secondary teacher, has his own digger and a farm, and the computer tutor is also a part-time student, night class tutor and bus driver.

"When I did the needs assessment, I discovered they (the drivers) don't actually have a workplace. Their workplace is the cab of their truck or their digger. The digger drivers can be working anywhere within a 50-60km radius of the town."

"At present, the problem with these small companies is actually getting communication. We've got 18 workers, 3 companies, and 3 tutors. We all live in different places. So we've got them communicating with each other on Skype."

2. Digital media were used by students to encourage communication including tutors' formative feedback.

The students took photos and videos on their mobile phones to show tasks they were completing in the workplace.

For example, at a polytechnic, bakery students communicated with their tutors and each other using mobile phones, sending pictures of their work.

Other apprentices used a computer software programme to fill in speech bubbles showing plumbing instructions.

Texting strategy to increase literacy

Strategy determined by the tutor enables the adult to use texting to support their literacy by texting in correct English using word prediction.
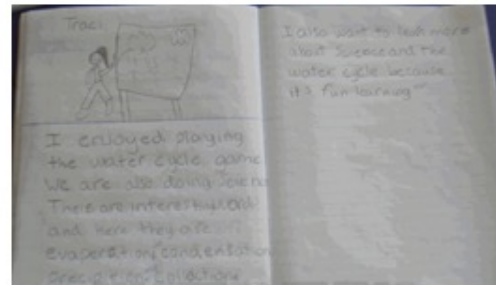
ePortfolios

Evidence against standards with formative feedback to develop a career profile

3. Culturally supportive practices

Polytechnic management had identified Māori students as a key group with high numeracy and literacy needs.

Whilst acknowledging the importance of new technologies to re-energise adult learners, the management at the institution believed that other factors needed to be considered before learning could take place for its Māori students.

For example, the polytechnic had a marae (a traditional Māori meeting house) to allow Māori students to feel culturally valued.

Improving motivation and engagement

A trial at a rural private training organisation with 65-75% Māori students:

A group of six students from the same whanau (related by family or tribal affiliation) spent half the time working on computers before moving to specific foundation numeracy or literacy courses.

As they worked on computers their own literacy skills are likely to have improved.

The students worked on their own curriculum vitae, formal letters or on on-line numeracy sites.

The students felt more comfortable in addressing their learning deficits in an informal and culturally familiar environment, whilst having ongoing communication and support from tutors.

Tutor strategies with Google docs – what are yours?

Family pride

Many learners wanted slow, small steps, which they could practise with the computer. By gaining confidence through working with tutors in the workplace, some learners were now able to go on-line at home and were very proud of their progress.

"They now (especially the middle-aged people) feel part of their (children's) generation, whereas previously the children were surpassing them."

Adult learners complained that children and grandchildren had tried to teach them but they went too fast.

The students developed a feeling of inadequacy and failure with no learning actually taking place.

4. Contextualisation to employment needs

In the meat industry, a tutor encouraged her students to use digital camera technology during a project on wastage, which was then presented to management. They measured the meat processing chain and were very motivated to use technology to present their findings in a professional way.
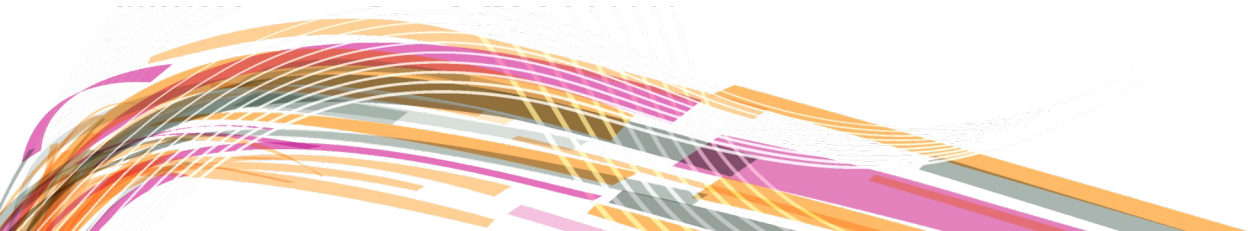
"They wrote their report using Microsoft Word. They have learned to create headers and footers, and have developed various word processing skills. They used numeracy skills to calculate conveyer belt speeds and distances. "

Khan Academy, e.g. http://www.khanacademy.org/math/arithmetic video & practice + tutor sites

Contextualisation & numeracy

Meat industry

- Interactive programme– speaks and covers reading scales, fractions and decimals

- Meat tagging and coding process with handheld scanner – information needs to be correct

- Project on wastage using digital cameras where it was loaded on computer and report written using Word (conveyer belts configuration altered to reduce amount of walking)

5. Regular opportunities for professional development

The leader of the Trades Training Facility at a polytechnic encouraged the sharing of innovative teaching examples of e-learning, to motivate and support staff. She likened this approach to a cognitive apprenticeship.

When staff started off listening to what they were being told.... then trying to put it in place... that balance (was) gradually changing until (staff) were actually arguing about methodology and the best approaches ... and then starting to think there's something good happening here.

This confidence to use e-learning in their courses came from a planned professional development programme for staff. Some possible avenues staff could explore included accessing IT courses as part of a Certificate in Adult Teaching and sharing motivation and experiences across the whole polytechnic to ensure generic gains in e-learning use.

Potential of e-learning depends on ongoing professional development for tutors

Ensure that ongoing professional development of teaching staff is informed by research.

tutors need to know why they are using ICT and how they can best use these tools to achieve their teaching aims.

Having staff conduct their own action research relative to their growing understanding and use of e-learning is also a valuable professional development strategy.

Provide a range of professional development opportunities, including informal networking (so that educators can share successful e-learning innovations) and formal accredited programmes

Provide professional development for tutors in the use of games on computers, the web, and mobile devices

6. English language learners

- Supporting adult learners who are learning the English language and who live in countries where English is the dominant language provides ongoing challenges for adult educators.

- One solution has been computer assisted language learning (CALL) and online language learning.

- These e-learning options can be particularly effective in supporting English Language Learners (ELL) when they include blended and online distance modes of learning .

- The need to develop learner autonomy has resulted in language teachers moving to the role of guide and facilitator, and it is necessary for them to "help learners steer a path through the barrage of text form within the web that can be quite daunting at first, especially to lower level learners" (Mishan, 2005: 243).

U.S.A. Learns

Web-accessible grammar and vocabulary learning software package with a skills' focus (particularly in oral language and reading) for English Language Learners (ELLs).

In the USA there are an estimated 11 million adults who need instruction in English as a second language, but less than 15% are in adult education + migrants elsewhere

USA Learns was designed for

Self service online learning encouraging adults to work through the sequence of activities *or*

Teachers to develop a planned programme of selected activities to meet specific

learning needs

http://www.usalearns.org/teacher/

Adult students' views on USA Learns

"Yes, it's very useful…. I am a Samoan, born of the Pacific Islands, so I really need to learn my English and practise… here, not only the written but also the oral speaking, so I can easily speak to other students, especially here in the College as I am trying to graduate and pass all my courses here. So I really need to speak good English. " (Female ESOL student)

"It's fairly animated. The lady pops up and she comes in… it's good for the brain, I guess. It's not just plain writing. It's bright colours… and the lady can talk to you. I guess it keeps you interested because it makes it sort of fun… I think it's a really simple tool… Someone with simple computer skills could still use it, because it's just click the button… I think there'd be general consensus (that) everybody could use it. (Male student)

Computer games

Computer games for language learning

Sorada Wattand's PhD research provides evidence that computer games can be used to increase 'willingness to talk' and so improve English skills, providing the teacher prepares well and is determined to make it work

Blended redesign

VA3: Maori Visual Culture

Maori Visual Culture

Distance and on campus groups: Week starting 12th March

Tēnā koutou. In this module we are aiming to extend your knowledge and understanding of Maori art/ visual culture and consider how this might be approached in teaching. This, and next week's module, will help to extend your perceptions of the value people place upon the artworks of their culture. Future predictions of the demographics of Aotearoa/ New Zealand indicate a growing percentage of the population will identify as Maori, and this will be reflected in the classrooms of the future ie. your classroom! You will be reviewing the resource booklet "He Wakahuia Toi Maori" Maori Visual Culture in Visual Art Education Years 7-10 **or** "He Papahuia Toi Maori" Maori Visual Culture in Visual Art Education Years 1-6 , both published by the Ministry of Education.

Goals for module 3:

: to extend or reconfirm your understanding of Maori art/ visual culture

: to consider the different ways you would incorporate maori art/ visual culture into your classroom programme

: to reflect upon the implications for your own learning journey

This weeks quote...

"Whaia e koe ki te iti kahurangi; ki te tuohu koe, me maunga teitei"
Seek the treasure you value most dearly: if you bow your head, let it be to a lofty mountain

Resources needed for module 3:

Modes of study blend in 1 site in a Learning Management System
1. On main campus
2. Flexible Learning Option nationwide
3. Outreach partner's campus

Space redesign

Multi-purpose learning space design

Large medium and small group work is possible in this space as well as links with groups in other locations

Co-evolution of polytechnic
e-learning & embedding LLN

How is your organisation progressing in this evolutionary process?

Localized

- Innovator(s) adopt the innovation and use it in their classroom or other individual context
  - E-learning numeracy in pre-med 10 years ago. Some still emerging.
  - TEC projects started 3 years ago. Some still emerging.

Internal Integration

- Coordinator appointed to manage applications and resources across the organization
  - e-Learning Coordinator in 2000; e-learning on campus courses
  - Foundation Coordinator appointed in 2008

Transformative

- The school or college changes internal routines & activities take advantage of innovations
  - E-learning in ESOL centre; m-learning in employment
  - ESOL centre continuing to evolve; LLN tutors co-teaching

Embedded

- The school or college uses networks with other organizations in relation, in existing scope
  - *Project proposed for e-learning in partnership with local migrant community's home islands*
  - *Māori community project on authoring by elders in partnership with iwi*

Innovative

- The school or college changes scope and activities to take full advantage of the innovation
  - None identified

Summary: Powerful incentive

E-learning contexts allowed learners independence to use the intranet and complete online workplace requirements .

New technologies not motivational tools when used alone, but must be integrated into purposeful vocational related numeracy and literacy learning.

Tutors need a thorough understanding of their students' employment requirements.

Tutors should be confident in the use of these technologies and be able to impart this knowledge to their learners in the workplace through ongoing professional development.

Questions?

Acknowledgements

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Online PD Programme
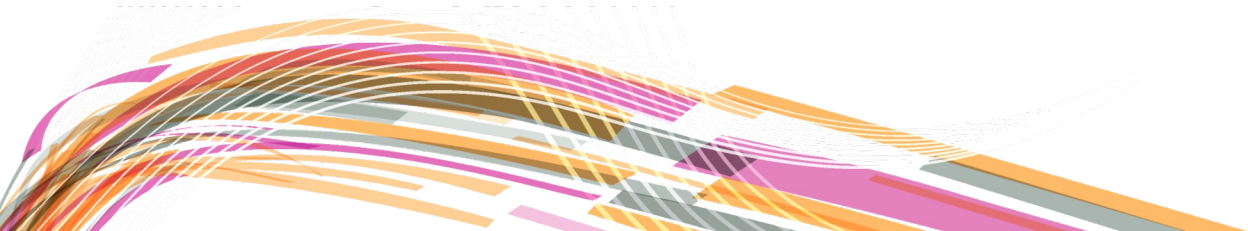Postgraduate Diploma in Education (e-learning & digital technologies)

Please promote co-evolution of e-learning and embedding LLN – **You** have a role

E-learning is relevant to and useful for most adults with literacy, language and/or numeracy (LLN) learning needs.

However, these benefits rely on a learning programme that is carefully designed to fit each individual's needs and lifestyle, his or her proficiency with digital technologies, and his or her level of reading literacy.
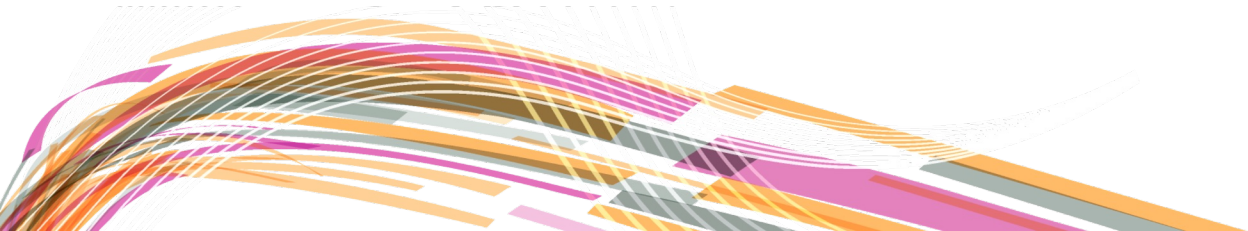
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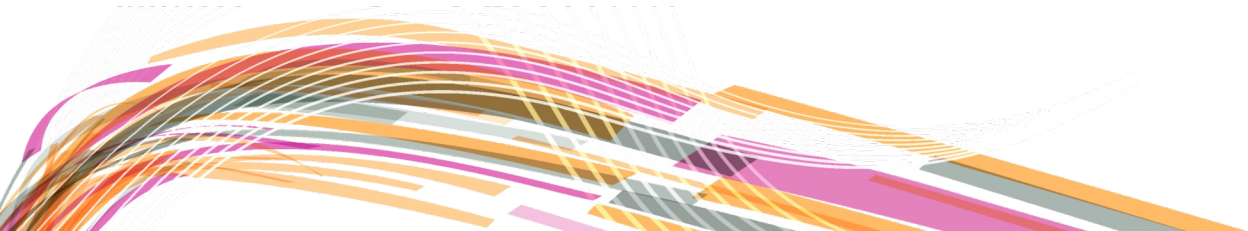http://journals.akoaotearoa.ac.nz/index.php/JOFDL/article/view/9.

Postgraduate Diploma in e-learning and digital technologies
http://www.canterbury.ac.nz/courses/grad_postgrad/education/pgdiped_elearninganddigitaltechnologies.shtm
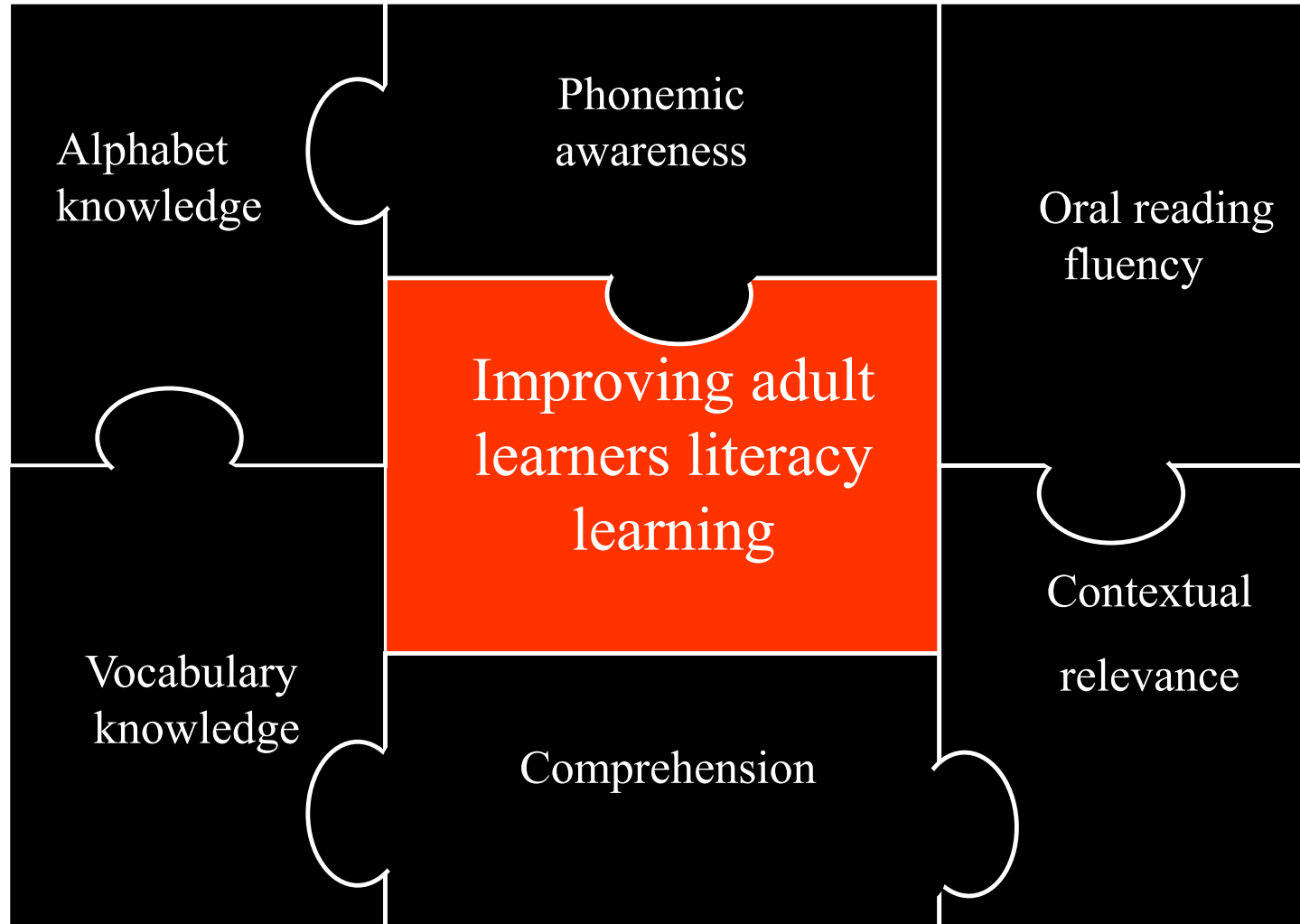
USA Learns web site http://www.usalearns.org/

Quality Concerns

- We contend that high student tutor ratios are a cause for concern.

- These low level literacy and numeracy adults are the very people who need the support, care and follow-up of their tutors if they are to have any hope of improving their motivation and engagement in learning.

- Of further concern, was it seemed that using digital technologies in this part of the institution was a mechanism for maximizing earning potential.

- Additionally, in many of our interviews with tutors it was often indicated that they were lowly paid and frequently working in less than positive situations.

Literacy skills

Alphabet knowledge

Phonemic awareness

Oral reading fluency

Vocabulary knowledge

Improving adult learners literacy learning

Contextual relevance

Comprehension

Six key factors that are essential to the success of e-learning:

- The adult's lifestyle (across life roles improving self esteem)
- The tutor's pedagogic goals
- The tutor's e-learning proficiency
- The purpose and culture of the education and/or training organisation
- All other locations where learning takes place, including the home
- Agencies can improve their approach to support e-learning