

Credible Credentialing ***IMPORTANCE for Trainers &*** ***Support Programs***

**ROLE OF FOUNDATION SKILLS,
Understanding LLN
& Using the ACSF**

Dr Cheryl Livock



WORKSHOP AIMS

- Workshop will enable participants to easily identify students' LLN levels and how to connect needed LLN levels to AQF certificates.
- It will utilize the ACSF (Australian Core Skills Framework) to identify LLN levels.
- It will discuss/gain participants' feedback on the impact of poor LLN skills levels on 'credible credentialing'.

IMPACT OF LLN ACQUISITION ON CREDIBLE CREDENTIALING

WHAT IS CREDIBLE CREDENTIALING?

What are the components of credible credentialing?

- necessary content knowledge *attained*
- practical ability to apply knowledge in a work situation *displayed in workplace scenarios*
- **to know**
- **to do** – doing *implies ability to use critical thinking in applying knowledge attained*

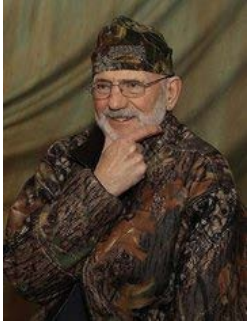
TRAINING PACKAGES – to Know & Do

In training packages this is represented by:

- **required knowledge**
- **required skills**
 - eg [BSBRES401A](#) – *view Training Package*
 - eg [HLTEN507C](#) – *view Training Package*

TO BE ABLE **TO KNOW & DO in Australia ...
adults need more than a basic understanding
of English**

Current literacy demands in industrialised nations



Mikulecky's list of changed workplace conditions

- **Increases in the demand for literacy,**
- **Significant amount of reading on the job,**
- **Increased difficulty level:**
 - integrated tasks (reading, writing, speaking, listening & using computers),
 - critical thinking and analysis within a short time period,
- **These higher literacy skills required in most jobs in developed nations.**

“According to the U.S. Department of Labor, the work areas growing in developed nations are:

service workers, psychiatric aides, dental assistants, claims clerks, secretaries, and sales clerks.

These are not high-tech jobs, but jobs that call for two to three hours of reading each day.

Often they are the jobs that in developed nations **go to the bottom 30 to 40 percent of a high school class.**

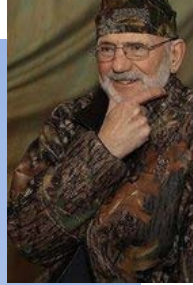
These jobs are not going to college graduates, but to people formerly not in the work force or those formerly doing muscle jobs.

What changed is that the lower 40 percent of the population is encountering situations where literacy demands are higher than high school demands.

Even more literacy is called for in jobs with the largest projected growth rates. These include:

industrial robots—manufacturing them, servicing them, marketing them, and working with them—as well as geriatrics social workers, energy technicians, those who work with industrial laser processing, and emergency medical workers.

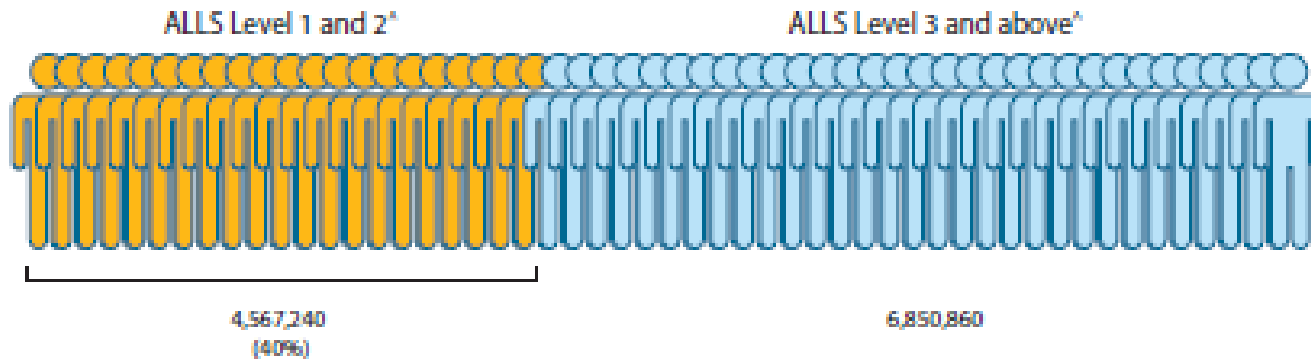
These jobs require some training beyond high school. **It is becoming difficult for someone who just has a high school diploma to be in more than a dead-end job.** Dropouts face even less desirable choices” (Mikulecky 2004,p.4).



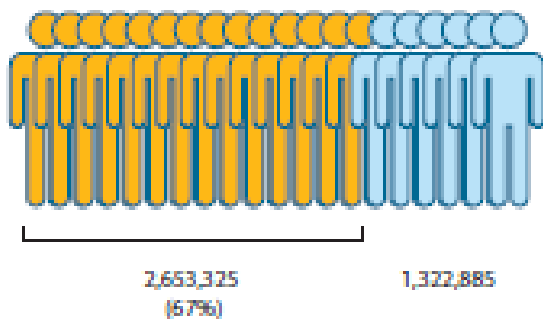
Under utilized Labor force – low LLN levels

DIAGRAM 2: THE PROPORTION OF WORKING AGE AUSTRALIANS, BY LABOUR FORCE STATUS, WHO HAVE 'DOCUMENT' LITERACY BELOW SKILL LEVEL 3 ON THE ALLS SCALE.

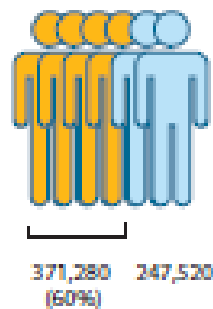
Employed (11,418,100)*



Not in the Labour Force (3,976,210)*



Unemployed (618,800)†



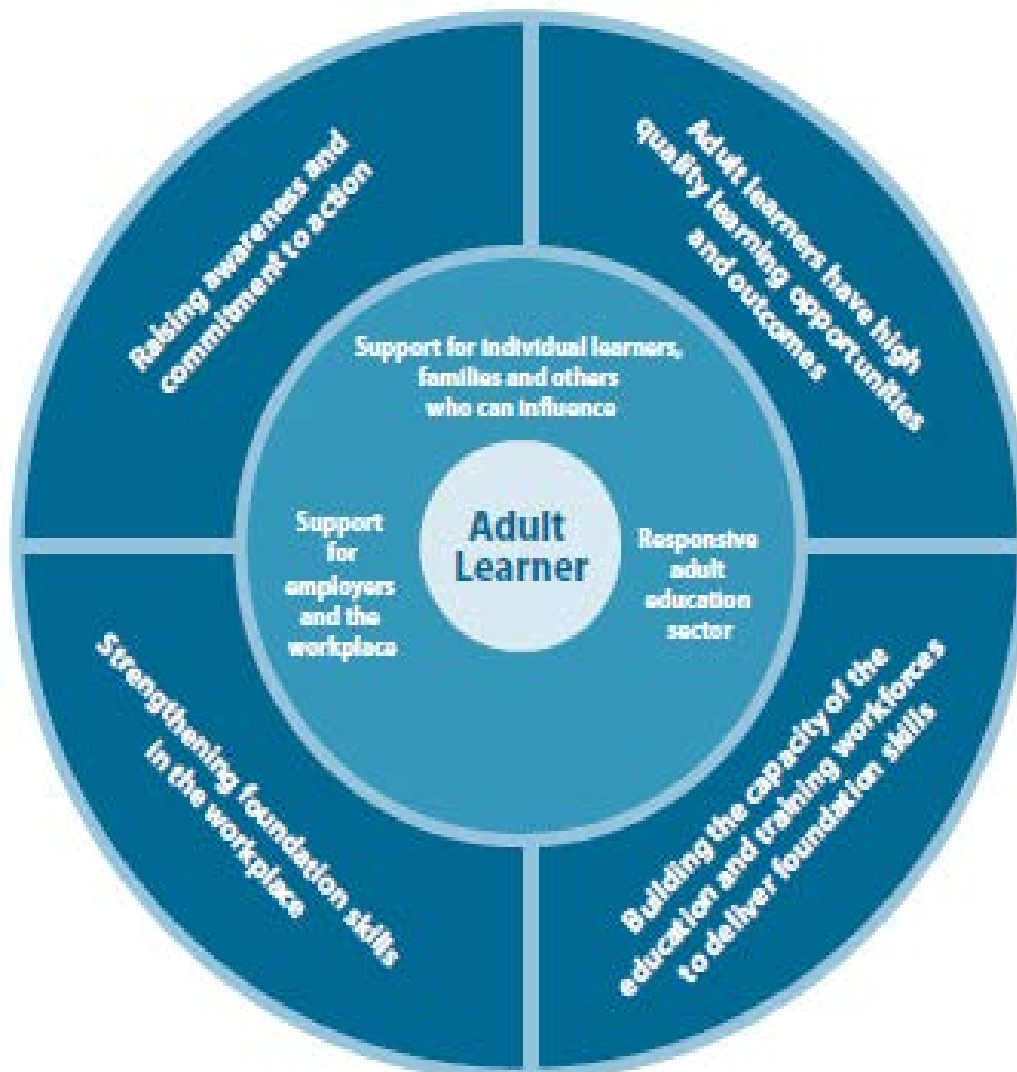
† Trend series data from ABS 2010, 6202.0 Labour Force Australia, December 2010 (pg. 1).

* Data taken from ABS 2009, 6220.0 Persons not in the Labour Force, Summary Results, September 2009 (pg. 10).

^ The ALLS levels here are extrapolated from ABS 2006, 4228.0 Adult Literacy and Life Skills Survey, Summary Results (pg. 38), which shows that approximately 40% of the employed, approximately 60% of the unemployed and approximately 67% of people not in the labour force had document literacy scores below Level 3.

National Foundation Skills Strategy for Adults

DIAGRAM 1: COMPONENTS OF THE NATIONAL FOUNDATION SKILLS STRATEGY FOR ADULTS



Proposed
National Strategy
(p.3) by
**Standing
Council of
Tertiary
Education Skills
& Employment
2012**

Dr Cheryl Livock

13 72 48
tafebrisbane.edu.au



THE AUSTRALIAN CORE SKILLS FRAMEWORK

plays a significant part in

Trainers /Tutors

being able to deliver credible credentialing
to their students

**CRUCIAL ROLE OF BUILDING LLN SKILLS
LINKED TO EACH
AQF CERTIFICATE LEVEL**

WHY THE ACSF?

- Allows VET Educators to assess students' *basic skills levels*;
- Allows TRAINING PACKAGE WRITERS to *design units of competencies* appropriate *for certificate levels*;
- Allows A CONNECTION TO WORKPLACE REQUIREMENTS for credible credentialing.

WHAT IS THE ACSF?



Understanding the ACSF

(i) Three domains of Communication

text types according to context

1. Personal and
Community

text types according to context

2. Workplace and
Employment

text types according to context

3. Education and
Training

(ACSF, 2011, pp.5,8)

UNDERSTANDING THE ACSF

(ii) 5 Core Skills areas

- 1. Learning**
- 2. Reading**
- 3. Writing**
- 4. Oral Communication**
 - speaking
 - listening
- 5. Numeracy**

{Digital coming}

(iii) 5 Levels of Performance

Each level has *increasing* levels of *complexity*.

Each level has *decreasing* levels of *support*

First two levels are in *familiar contexts*.

Levels 3-5 are in *unfamiliar contexts*.

Each level has *consistent performance indicators*

UNDERSTANDING THE ACSF

(iv) *Performance Indicators*

ACSF PERFORMANCE INDICATORS		
Core Skill	Indicator Number	Description
Learning	.01	Active awareness of self as a learner, planning and management of learning
	.02	Acquisition and application of practical strategies that facilitate learning
Reading	.03	Audience, purpose and meaning-making
	.04	Reading strategies
Writing	.05	Audience, purpose and meaning-making
	.06	The mechanics of writing
Oral Communication	.07	Speaking
	.08	Listening
Numeracy	.09	Identifying mathematical information and meaning in activities and texts
	.10	Using and applying mathematical knowledge and problem solving processes
	.11	Communicating and representing mathematics

Table 3: ACSF Performance Indicators

UNDERSTANDING THE ACSF

Spiky Profiles - Students

ACSF, 2011,
p.12

The ACSF recognises that an individual may be operating across different levels within a core skill, demonstrating some Performance Features across two or more levels, or performing more strongly in one Domain of Communication than in another. It is also likely that an individual will not perform at the same ACSF level across all five core skills. This can be captured visually in what is called a 'spiky profile' (Bateson 2001).

Using the ACSF, an individual's performance across the five core skills can be benchmarked and a spiky profile constructed. This provides valuable information about an individual's areas of strength and specifically identifies any areas where further training could be beneficial.

WHY USE THE ACSF?

ACSF LEVELS **for COURSES & WORKPLACES**

Certificate courses have a generally acceptable ACSF Levels

- as detailed in table

However, specific workplace requirements also can demand different ACSF levels within that one course
- *the spiky course profile*

WRITING & READING SKILLS	School Year & TAFE Level	Australian Core Skills based on IALS levels & NRS	Australian Curriculum [English]
- Knowledge of alphabet and associated sounds; developing a known bank of simple words	Prep/K to Year 1	Pre-Level 1	
- Write: simple sentence, fill in basic forms - Read: newspaper with difficulty	Years 2-3 Cert I	Level 1	Year 1 <i>simple sentence</i> Year 2 <i>compound sentence</i>
N A FAMILIAR CONTEXT - Write: compound sentences - Read: newspaper / not fully understand	Years 4-5 Cert I	Level 2	Year 5 <i>complex sentence</i>
N A FAMILIAR CONTEXT - Write: complex sentences, within 2-3 paragraphs - Read and fully understand newspaper	Years 6-7 Cert I Years 8-9	working within/ towards Level 3 Level 3 end Yr 9	Year 7 <i>writes paragraphs with intro/body/ conclusion</i>
N AN UNFAMILIAR CONTEXT - Write: 3+ paragraphs, well constructed, abstract ideas and terminology, genres related to social and cultural contexts - Read: several sources, distinguish fact from opinion, infer purpose	Year 10 Cert II	Level 3	Year 10 <i>manipulates paragraphs</i>
- Write: 3+ paragraphs, well constructed, abstract ideas and terminology, genres related to social and cultural contexts - Read: several sources, distinguish fact from opinion, infer purpose	Year 11 Year 12 Cert III	Level 4	
- Write: selecting stylistic devices to express complex relationships between ideas and purposes. Generates complex written texts with control over generic structures. - Read: critically reads and interprets nuances of structurally intricate texts in chosen fields	Cert IV DIPLOMA University level	[Cert IV working within level 5] Level 5	

CSIT 2004 – Cert II, Access 10 had more stringent English requirements

EXAMPLE OF A SPIKEY PROFILE
Diploma of Enrolled Nursing – Numeracy ACSF Level 4

18 Students
 31 Numeracy questions

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
	X	X	X			X	X	X	X	X	X	X	X	X		X	X		X		X	X		X	X				X	X	X	
			X		X	X													X				X								X	
				X					X	X			X		X		X		X		X	X	X	X	X	X	X	X	X	X	X	
			X																X	X		X			X						X	
	X	X	X	X			X	X				X							X					X		X				X	X	
			X				X						X							X		X		X							X	
		X	X	X								X									X	X	X	X	X	X	X			X	X	
							X												X													
																X			X						X							X
	X			X	X	X		X					X					X	X		X	X		X	X		X		X		X	
	X	X			X	X					X	X	X	X	X	X				X	X		X						X	X		
			X	X						X														X		X				X	X	
	X	X				X	X	X		X		X								X	X	X	X	X	X	X	X	X	X	X	X	

Q	Curric	Title	Workbooks	Q	Curric	Title	Workbooks	Q	Curric	Title	Workbooks
1	N1/L2.1	Negative Numbers	1	2	N1/L2.1/2	Understanding Number	1 2 8	3	N1/L2.3	Ratio	3
4	N1/L2.4	Formulae	9	5	N2/L2.1	Order & Compare Fractions	5	6	N2/L2.2	Equivalent Fractions	7
7	N2/L2.3	Evaluate Fractions	5	8	N2/L2.4	Add/subtract fractions	5	9	N1/L2.2	Calculations	2
10	N2/L2.6	Decimals	6	11	N2/L2.7	Percentages	7	12	N2/L2.8	Percentage Parts	7
13	N2/L2.9	Evaluate Percentages	7	14	N2/L2.10	Calculator	8	15	MSS1/L2.1	Money	10
16	MSS1/L2.2	Time/Date	10	17	MSS1/L2.3	Measurements	11	18	MSS1/L2.4	Temperature	11
19	MSS1/L2.5	Measure Calculations	11	20	MSS1/L2.6	Conversion	11	21	MSS1/L2.7	Perimeter & Area	9 12
22	MSS1/L2.8	Area Shapes	9 12	23	MSS1/L2.9	Volume	13	24	MSS1/L2.10	Scale	14
25	MSS2/L2.1	2D/3D	14	26	MSS2/L2.2	2D Problems	14	27	HD1/L2.1	Extract Information	15
28	HD1/L2.2	Present Data	15	29	HD1/L2.3	Averages	15	30	HD1/L2.4	Extract Range	15
31	HD2/L2.1	Probability	16								

USING A SPIKY PROFILE – TO TARGET CRITICAL SKILL GAPS



Identify Critical Skill Gaps - Numeracy for Diploma of Enrolled Nursing

13 of 30 NUMERACY QUESTIONS NEEDED FOR NURSING [medications calculations]
IN ORDER OF IMPORTANCE:

1. FRACTION Q.s	5 Order fractions	6 Equivalent fractions	10 Decimals	7 Evaluate fractions	8 Add/subtract fractions
2. NUMBER Q.s	1 Negative numbers	2 Number	9 Calculations	27 Extract Information	30 Range
3. BASIC SKILLS Q.s	14 Calculator	16 Time & Date	4 Formulae		

STUDENT ERROR RATE [18 students] – colour coded for Questions above

HIGHEST ERROR RATE	2	7	8	30		
2ND HIGHEST ERROR RATE	1	4	6	9	10	27
LOWEST ERROR RATE	5	14	16			



FOUNDATION SKILLS NEEDED FOR
full participation in civic life in Australia
AND
CREDIBLE CREDENTIALING

**USING KNOWLEDGE OF ACSF & AQF
SPIKY PROFILES
TO BUILD FOUNDATION SKILLS**

WHAT ARE FOUNDATION SKILLS?

Foundation Skills include:

- “English language, literacy and numeracy (LLN) – listening, speaking, reading, writing, digital literacy and use of mathematical ideas; and
- “**Employability Skills**, such as collaboration, problem solving, self-management, learning and information and communication technology (ICT) skills required for participation in modern workplaces and contemporary life”.

Foundation skills development includes both:

1. “skills acquisition and
2. “the critical application of these skills in multiple environments for multiple purposes.”

“Foundation skills are fundamental to participation in the workplace, the community and in adult education and training.”



Foundation Skills Package - ACSF LEVELS

Knowledge of the ACSF has underpinned the writing of the FSK units.

- ***FSK Units all name their ACSF Level***
- ***FSK Units can be contextualised for Industry & Student needs***

An FSK unit Used for Diploma of Nursing

FSKNUM14 Calculate with whole numbers and familiar fractions, decimals and percentages for work

Application

This unit describes the skills and knowledge to interpret and calculate whole numbers, routine fractions, decimals and percentages.

~~This unit applies to individuals~~ who need numeracy skills at Australian Core Skills Framework (ACSF) level 3 to undertake a vocational training pathway or workplace tasks.

This unit is designed for integration and contextualisation with vocational units to support achievement of vocational competency.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

FSK NUM 14 = ACSF Level 3

Elements and Performance Criteria

Element	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and interpret routine mathematical information	1.1 Select and interpret mathematical information that may be partly embedded in routine workplace tasks and texts 1.2 Interpret and comprehend whole numbers and routine or familiar fractions, decimals and percentages including familiar rates
2. Undertake routine mathematical processes	2.1 Perform calculations which may involve a number of steps 2.2 Calculate with whole numbers and routine or familiar fractions, decimals and percentages 2.3 Convert between equivalent forms of fractions, decimals and percentages 2.4 Apply order of operations to solve multi-step calculations 2.5 Apply problem solving strategies
3. Check and communicate results	3.1 Make estimations to check reasonableness of problem solving process, outcome and its appropriateness to the context and task 3.2 Use formal and informal mathematical language and symbolism to communicate the result of the task

Dr Cheryl Livock

13 72 48

tafebrisbane.edu.au

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Learning		<ul style="list-style-type: none"> Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Assessment Requirements for FSKNUM14 Calculate with whole numbers and familiar fractions, decimals and percentages for work

Performance Evidence

Evidence of the ability to:

- interpret and use common fractions, decimals and percentages in real situations
- choose the appropriate operations to solve real life mathematical problems
- perform calculations involving fractions, decimals and percentages.

Note: Where a specific volume and/or frequency is not specified, evidence must be provided at least once.

Knowledge Evidence

Evidence of the following knowledge must be demonstrated:

- place value and use of zero
- relationship between operations
- order of operations
- relationship between fractions, decimals and percentages.

Assessment Conditions

Assessment texts and tasks reflect those typically found in the workplace.

Individuals can access own familiar support resources.

Culturally appropriate processes and techniques suited to the language, literacy and numeracy capacity of individuals and the work being performed must be used.



What is needed for Credible Credentialing?

TO SUMMARISE:

In delivering VET training there must be an alignment AND attainment of:

- Foundation skills
 - Reading, writing, oral communication, digital literacy, mathematics & learning skills,
- Workplace content knowledge and practical application



Have **your** Say

Participants' feedback on

- the impact of poor LLN skills levels
- on 'credible credentialing'

Discuss this in Groups of 4

Write your summary on butchers paper provided.