

Let's talk about competency-based education

2021 Researcher-Academic Town Meeting

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 - Honoraria for the presentation today
- Non-Financial
 - Honorary academic with The University of Sydney and Flinders University
 - Advise Speech Pathology Australia re COMPASS© and participate in consultations re competency standards



Gambay - First Languages Map


First Languages Australia is working with regional language centres nationally to develop a map of Aboriginal and Torres Strait Islander languages that reflects the names and groupings favoured by community.

[Explore the map...](#)



[http://www.kurnaplacenames.com/
using_the_maps.php](http://www.kurnaplacenames.com/using_the_maps.php)
<https://gambay.com.au/>



- 
- History
 - Definitions and competency framework
 - Implementation
 - Lessons learned



Why CBE?

Desired outcome: Graduates who are fit for practice

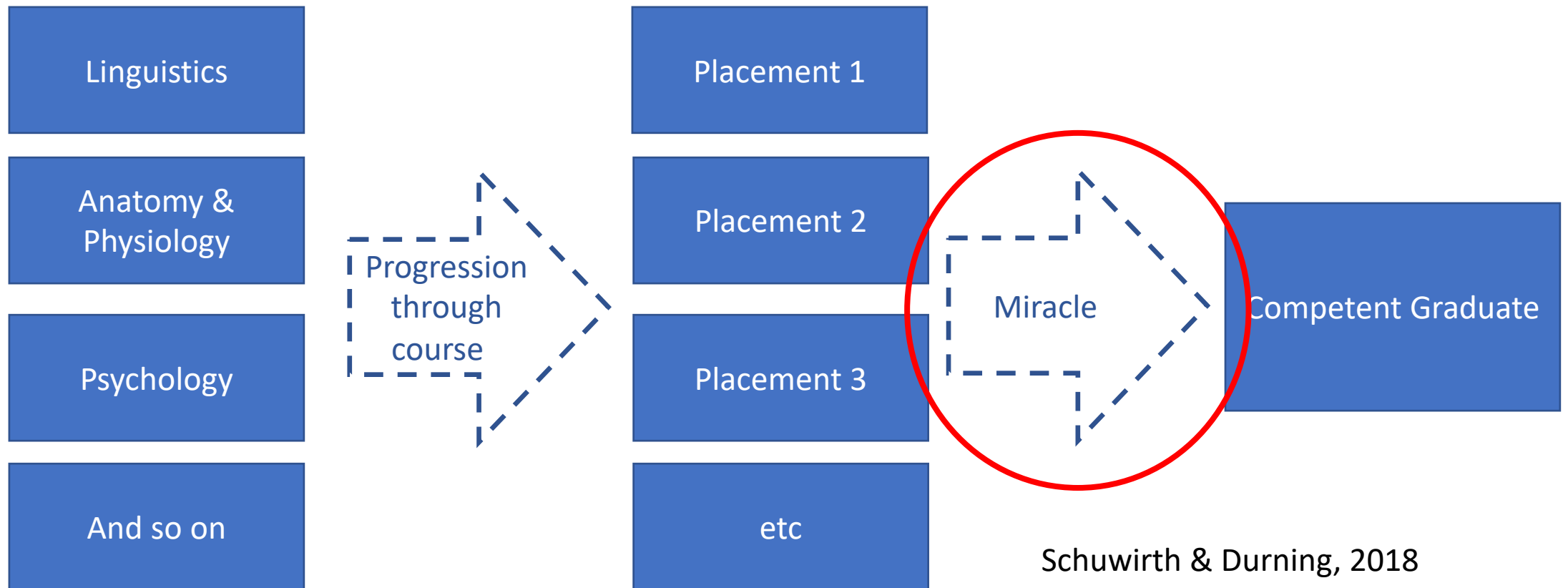
If we focus on inputs – how do we know we have achieved the outcome?

Drivers

- **Values and social context**
- **Fit for purpose education models**

Fit for purpose?

Adapted from Fig 1, pg. 442; Albanese et al 2010



Schuwirth & Durning, 2018

Fit for purpose?

Hager, 2004



Williams (2021) *“Programs are trying to squeeze growing content into an educational model that is already bursting at the seams.”*

Le Maistre & Pare (2004) pg. 47 *“When they come in, they have no sense of how the theory fits in with the practice . . . they see . . . a real separation between their theory and their practice.”*

University learning

Pass assessment of theory
e.g. how language is acquired

Collaboration is cheating

Focus is the student

Workplace practice

Theory is a tool to solve
problems e.g. facilitate
language development

Collaboration is essential

Focus is the
patient/client/community

Fit for purpose?

Advances in Health Sciences Education
<https://doi.org/10.1007/s10459-021-10073-8>

Not too little, not too much: supervisor perceptions of work-readiness of speech-language pathology graduates

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Advances in Health Sciences Education
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Why shouldn't we do that on placement if we're doing it in the real world? Differences between undergraduate and graduate identities in speech and language therapy

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Critical skills for work readiness: Independence; Attitude; Teamwork; and Learning.
Knowledge or skills specific to workplace not emphasised
Implicit expectations re graduates managing transfer

History: Values and social context


Australian Commonwealth Government CBE reform initiated 1980's (Harris, 1995).

- National training reform agenda
- National Office for Overseas Skills Recognition
 - Resources to develop competency frameworks (Hager et al 1994; Heywood et al 1992)
 - Funded Speech Pathology Australia's development of first Competency Based Occupational Standards (CBOS – 1994, 2001, 2011)

History: competency frameworks

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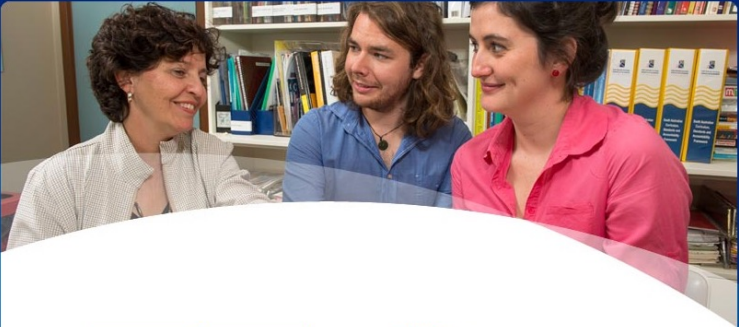
Speech Pathology Australia

Competency-based Occupational Standards for Speech Pathologists

Entry Level

Revised 2011

The Speech Pathology Association of Australia Limited
ABN 17 008 989 440



competency assessment in speech pathology

COMPASS®


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PASSWORD

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[Forgotten your username or password?](#)

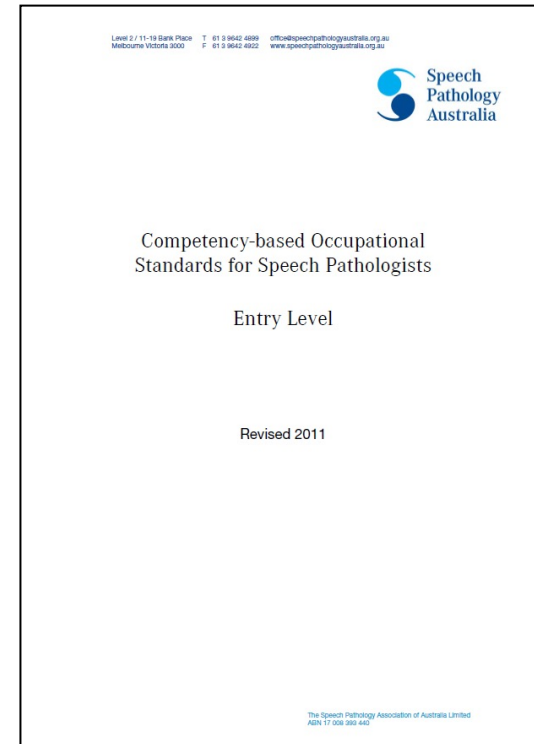
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CBOS

- Collaborative development
- Long term cycles of engagement
 - 1994
 - 2001
 - 2011
- Competency based accreditation
- Focus on **outputs** not inputs

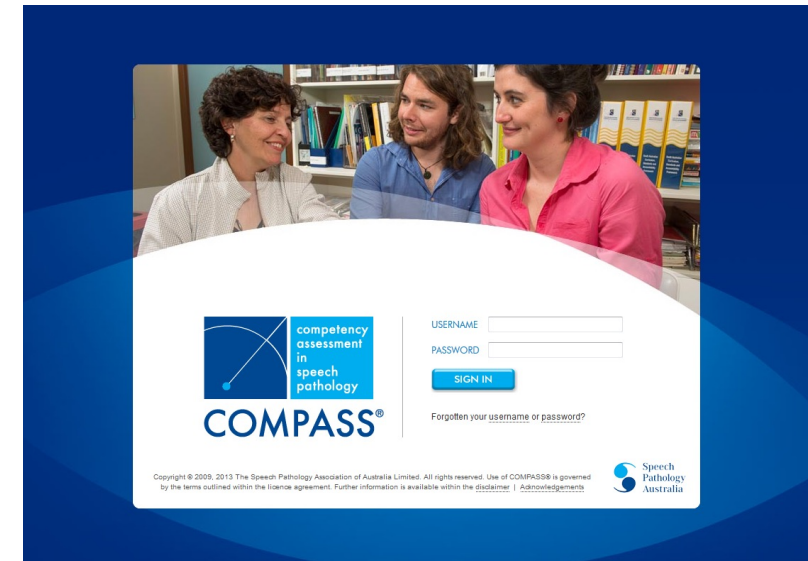
Now moving to Professional Standards...



COMPASS©

- Performance based assessment tool
- Occupational + Professional competencies
- Australia, New Zealand, Hong Kong, Singapore, Malaysia
- Secure online database
- Educationally sound
- Maps progression to entry level

See bibliography for research background



Nature of SLP competency

- Developmental
- Competent exercise of professional judgement to inform action across all tasks and contexts of the profession
- Wholistic integration of occupational and professional competencies
- Inferred from performance of professional tasks
- Competency arises from combinations of knowledges, skills and attributes
- Competencies facilitate transfer across domains and contexts of practice

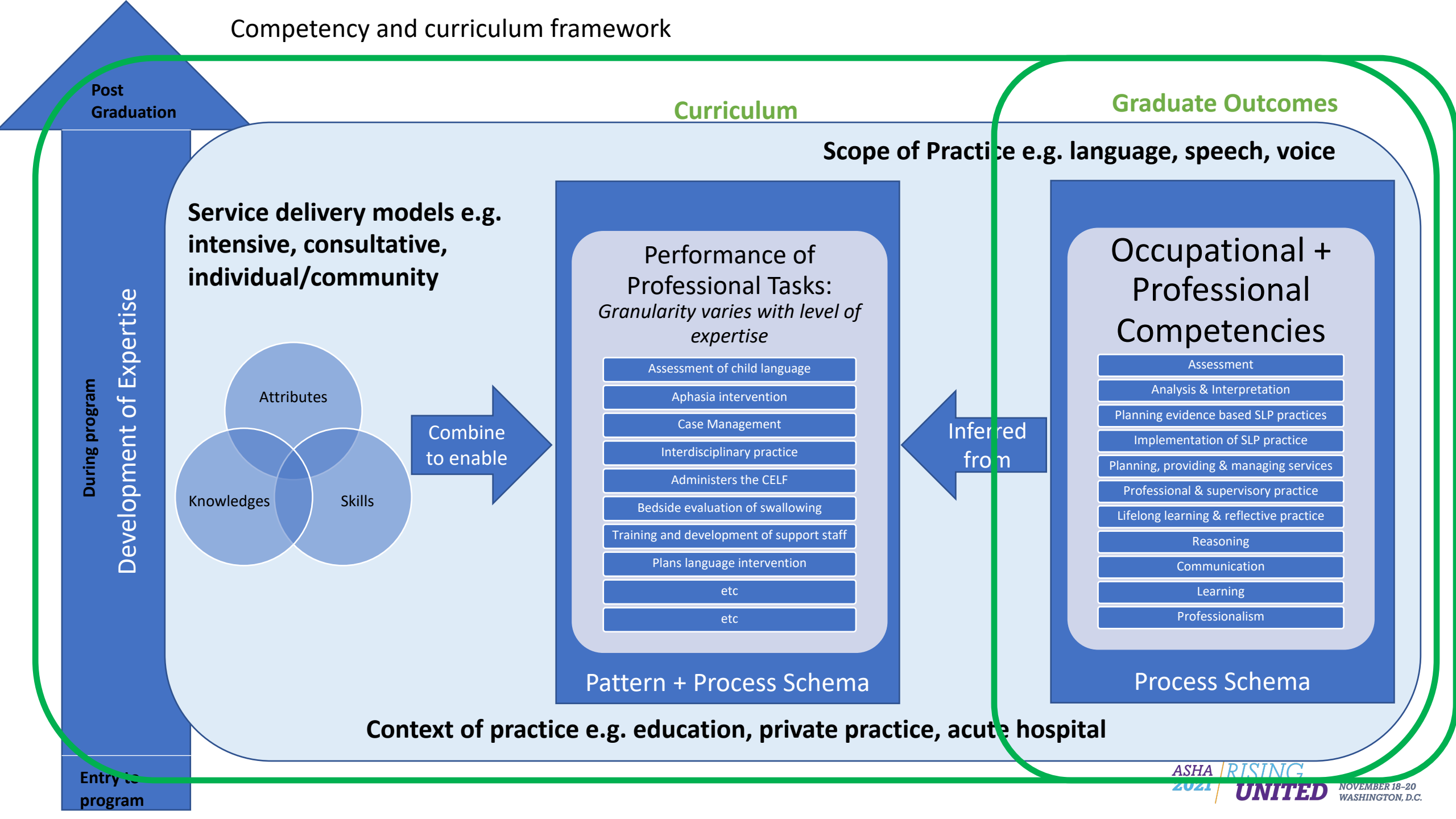
Transfer

Schema – organise, store and retrieve information from long term memory (Fraser et al, 2015; van Merriënboer & Sweller, 2005; van Merriënboer & Kirschner, 2018)

- Processes
- Patterns

Surface vs Deep structures (Barnett & Ceci 2002)

Clinical Swallowing Evaluation examples from McAllister et al 2020.



Example: teaching research

Relevant competencies

- a) Professional: communication, lifelong learning, reasoning (COMPASS©)
- b) Occupational: assessment; analysis and interpretation; planning evidence-based speech pathology practice; Intervention; Planning; Providing and managing speech pathology services (CBOS, 2011) e.g.

CBOS definition of evidence-based practice

*“When a clinician engages in evidence-based practice, they approach their clinical practice from the perspective of a **researcher**. They critically analyse their practice and formulate focused and structured questions or hypotheses about the likely outcomes of their planned management.” (pg. 4)*

CBOS domains of SLP practice

“Speech pathologists provide services across all of the following domains: advocacy, clinical services, consultation, education, prevention and **research** for communication and swallowing disorders across the lifespan.” (pg. 6)

Occupational + Professional Competencies



Process Schema

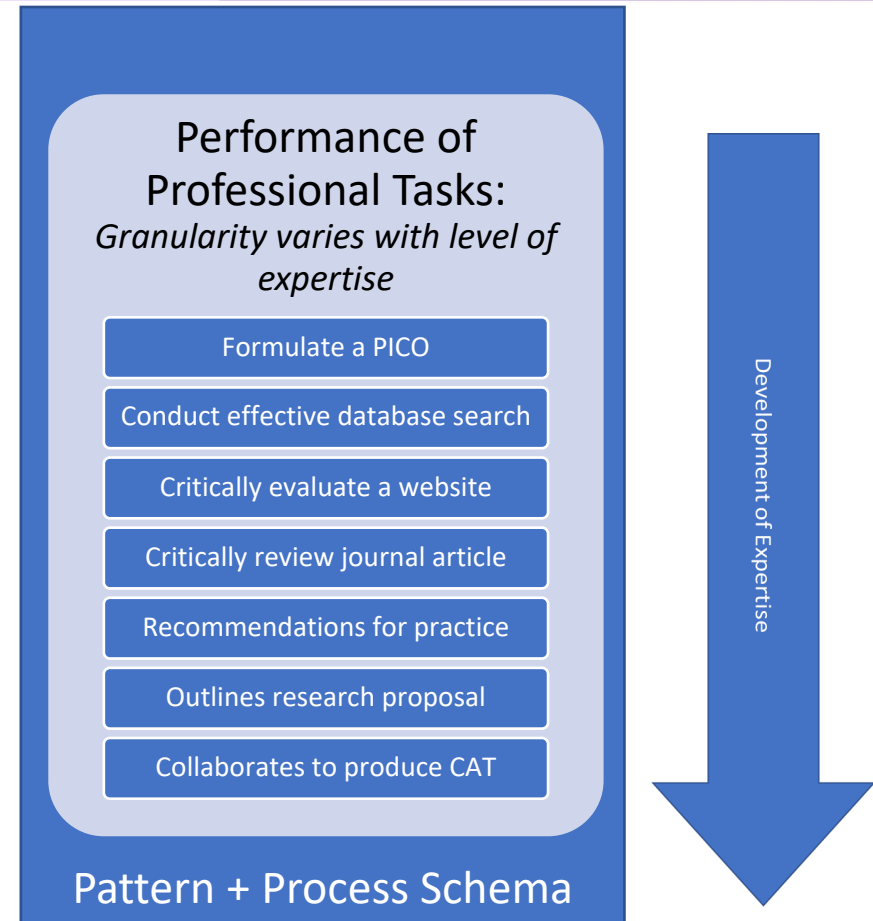
Example: Mapping questions

- How will learning about research enable graduates to better serve their clients and community?
 - Engage in high quality EBP
 - Contribute to research
- What do I think students need to be able to DO
 - Think critically
 - Ask high quality questions about their practice
 - Find and evaluate relevant research
 - Use the results appropriately to inform practice
- How will I know they can do it – assessed professional tasks
- What knowledge, skills and attributes will enable them to undertake these tasks successfully?
- What is the developmental sequence and how can I build this across the program?

See: <https://www.johnbiggs.com.au/academic/constructive-alignment/>

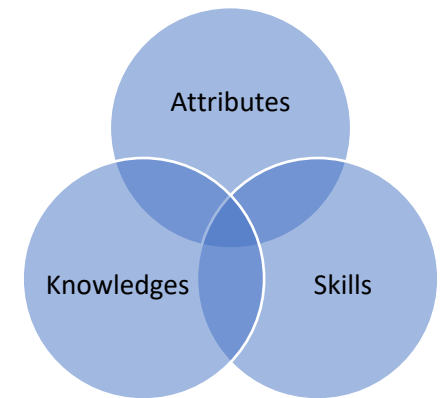
Professional tasks = Assessment tasks

1. Construct a PICO and search, critically evaluate the evidence for a website promising a 'cure' and make a recommendation for a parent
 - linked to PBL cases and simulated clinical task
2. Critical review of the evidence presented in research articles, providing recommendations for practice and research, identifying methodology to further develop evidence
 - Linked to PBL cases, successful reviews published on external website to inform clinicians
3. Produce a Critically Appraised Topic and make recommendations for education, research and practice
 - Partnered with SLP to address real clinical question, CAT statements made available and publicly presented to peers and profession



What learning do I need to facilitate?

- **Knowledges:** What do the students need to know?
 - Propositional e.g. What is qualitative research?
 - Practical e.g. How to formulate a PICO.
 - Personal knowledge e.g. What do they already know about research methods?
- **Skills:** What do the students need to be able to do?
 - Practical e.g. Conduct a database search
 - Cognitive e.g. Identify and manage cognitive biases
 - Emotional/social e.g. Negotiate CAP topic with SLP
- **Personal qualities:** What might influence their performance?
 - Cognitive style e.g. flexibility
 - Interpersonal style e.g. persistence
 - Integrity e.g. willing to admit error





Did I succeed?

“It’s been a fantastic project [CAT] ...we find that we are now reading articles with much more knowledge and ability to look critically at the quality of the research and findings, so thank you so much for giving us such a useful assignment.”

Development of expertise

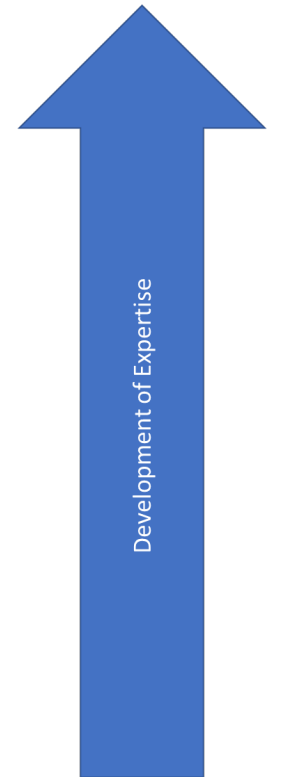
Developed and tested via COMPASS© research

Continuum of competency

- 3 levels: Novice, Intermediate, Entry-Level
- Developed with reference to
 - SOLO Taxonomy (Biggs & Collis, 1982)
 - Stages in skill acquisition (Benner, 1984; Dreyfus & Dreyfus, 1996)
 - Degree of support required (Anderson, 1998; Brasseur, 1989)

Describe the development of student's ability to

1. Manage complexity
2. Transform knowledge into practice
3. Work independently



Practicum example



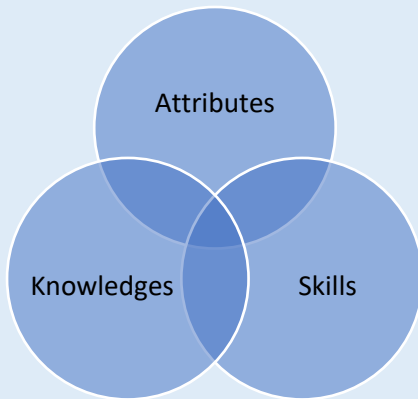
Post Graduation

Curriculum

Graduate Outcomes

Scope of Practice e.g. language, speech, voice

Service delivery models e.g. intensive, consultative, individual/community



Combine to enable

Performance of Professional Tasks: Granularity varies with level of expertise

- Assessment of child language
- Aphasia intervention
- Case Management
- Interdisciplinary practice
- Administers the CELF
- Bedside evaluation of swallowing
- Training and development of support staff
- Plans language intervention
- etc
- etc

Pattern + Process Schema

Inferred from

Occupational + Professional Competencies

- Assessment
- Analysis & Interpretation
- Planning evidence based SLP practices
- Implementation of SLP practice
- Planning, providing & managing services
- Professional & supervisory practice
- Lifelong learning & reflective practice
- Reasoning
- Communication
- Learning
- Professionalism

Process Schema

Context of practice e.g. education, private practice, acute hospital

During program Development of Expertise

Entry to program

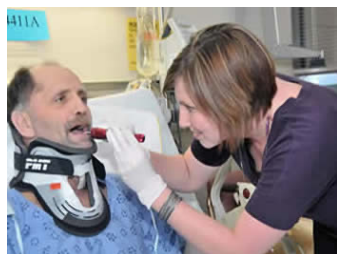
Convention

Key elements for successful CBE

- Well articulated competency based framework
- Whole of program approach
- Strong educational design informed by theory
 - Spiral curriculum and development of expertise
 - Horizontal and vertical integration
 - Schema building and transfer
 - Constructively aligned
 - Quality assessment

Outcomes

National consensus and collaboration



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