



# Researcher Skill Development Framework

A conceptual model for the development of student and researcher skills.

LEVEL OF RESEARCHER AUTONOMY

**Researchers**

A. **Embark** on inquiry and so **determine a need** for knowledge/understanding

B. **Find/generate** needed information/data using appropriate methodology

C. **Evaluate** information/data and the process to find/generate this information/data

D. Students **organise** information collected and manage the research process

E. **Synthesise** and **apply** and **analyse** new knowledge

F. **Communicate** knowledge and the processes used to generate it, with an awareness of ethical, social and cultural issues

		Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
		Research is conducted at the level of a <b>closed inquiry*</b> and require a <b>high degree of structure/guidance</b>	Research is conducted at the level of a <b>closed inquiry*</b> and require <b>some structure/guidance</b>	Research is conducted independently at the level of a <b>closed inquiry*</b>	Research is conducted at the level of an <b>open inquiry*</b> within <b>structured guidelines</b>	Research is conducted at the level of an <b>open inquiry*</b> within <b>self-determined guidelines</b> in line with the discipline	Research <b>informs others' agendas</b>	Research <b>enlarges field</b> of inquiry
<b>Curious</b>	Respond to questions/tasks arising explicitly from a closed inquiry.	Respond to questions/tasks required by and implicit in a closed inquiry.	Respond to questions/tasks generated from a closed inquiry.	Generate questions/aims/hypotheses framed within structured guidelines.	Generate questions/aims/hypotheses based on experience, expertise and literature.	Identify previously unstated gaps in literature and articulate research directions in response to them.	Articulate research directions that expand the field.	
	<b>Determined</b>	Collect and record required information/data using a prescribed methodology from a prescribed source in which the information/data is clearly evident.	Collect and record required information/data using a prescribed methodology from prescribed source/s in which the information/data is not clearly evident.	Collect and record required information/data from self-selected sources using one of several prescribed methodologies.	Collect and record self-determined information/data from self-selected sources, choosing an appropriate methodology based on structured guidelines.	Collect and record self-determined information/data from self-selected sources, choosing or devising an appropriate methodology with self-structured guidelines.	Synthesise others' methods to formulate novel methods/ methodologies or apply existing methods to novel application	Generate new methods/ methodologies.
		<b>Critical</b>	Evaluate information/data and the inquiry process using simple prescribed criteria.	Evaluate information/data and the inquiry process using prescribed criteria.	Evaluate information/data and the inquiry process using criteria related to the aims of the inquiry.	Evaluate information/data and the inquiry process comprehensively using self-determined criteria developed within structured guidelines.	Evaluate information/data and the inquiry process rigorously using self-generated criteria based on experience, expertise and literature.	Generates substantial research outcomes, so that ideas, practices or interpretations cited/ implemented by others.
	<b>Organised</b>		Organise information/data and manage the research process according to a simple prescribed structure	Organise information/data and manage the research process according to prescribed structures	Organise information/data and manage the research process by adapting providing structures	Organise information/data and manage the research process using self-determined structures that fit provided guidelines	Organise information/data and manage the research process using self-determined protocols in accordance with the discipline	Form a research team or a team of communitybased practitioners.
		<b>Creative</b>	Synthesise and analyse information/data to reproduce existing knowledge in prescribed formats. Ask questions of clarification/curiosity.	Synthesise and analyse information/data to reorganise existing knowledge in standard formats. Ask relevant, researchable questions.	Synthesise and analyse information/data to construct emergent knowledge. Ask rigorous, researchable questions based on new understandings.	Synthesise, analyse and apply information/data to fill recognised knowledge gaps.	Synthesise, analyse and apply information/data to fill self-identified gaps or extend knowledge.	Synthesise others' concepts or interpretations to frame novel outcomes. May also address substantial concerns of a community.
	<b>Persuasive</b>		Use mainly lay language and prescribed genre to demonstrate required knowledge and understanding for lecturer/ teacher as the audience.	Use some discipline-specific language and prescribed genre to demonstrate self-selected knowledge and understanding from a stated perspective and for a specified audience.	Use mostly discipline-specific language and appropriate genre to demonstrate knowledge and understanding within a field from a scholarly perspective and for a specified audience.	Use the language of the discipline and appropriate genre to address knowledge and understanding gaps from several perspectives for a self-selected audience.	Use the language of the discipline, choosing appropriate genre to extend knowledge and understanding, from diverse perspectives for a range of audiences. New knowledge is publicly accessible.	Contributes to, or changes the direction of, the conversation within the discipline/ field through publicly-available communication of knowledge/understanding.

Many cycles may occur between Level I and Level IV or V during the course of formal education. However, when the process of research begins to yield knowledge new to humankind, then the researcher is set to move towards level VI and VII in the discipline. Concept by John Willison and Kerry O'Regan, produced by Nik Cornish, Centre for Learning and Professional Development. Levels VI and VII are adapted from Bernstein, (2006). See [www.adelaide.edu.au/clpd/rsd](http://www.adelaide.edu.au/clpd/rsd) for information on the original five level framework. Email: john.willison@adelaide.edu.au - © The University of Adelaide, August 2008.