

# S2S Learning Outcomes Map

Research Phase			PHASE 1: Inquiry & Exploration		PHASE 2: Investigation & Organization		PHASE 3: Analysis & Evaluation			PHASE 4: Creation & Communication	
			Research as Inquiry	Searching is Strategic Exploration	Searching is Strategic Exploration	Information Creation as Process	Scholarship as Conversation				
<i>Learning Outcomes</i>	Module Learning Outcomes	P-M	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	M-9
ACRL's Threshold Concepts											
<b>1. Identify how knowledge in a discipline is formally and informally produced, organized, disseminated and accessed.</b>  <i>COU's GDLE (Depth and Breadth of Knowledge)</i>	1.3 Outline the components of the research process		*								
	3.2 Identify a range of source types relevant to research				*	*	*				
	5.1 Investigate sources of grey literature						*				
	5.2 Compare pathways to theses & dissertations						*		*		
	5.3 Evaluate pathways to government information, data, and statistics						*				
	7.2 Understand publication processes for scholarly & peer-reviewed materials								*		
<b>2. Define specific research questions and select a research approach that align with the nature and context of the questions.</b>  <i>GDLE (Research and Scholarship)</i>	2.1 Investigate potential research topics drawing on discipline-specific sources			*	*						
	2.2 Generate a table of concepts that describe a research topic			*							
	3.1 Document the process you typically follow to find information for your research.			*	*						
	4.1 Explore vocabulary used to describe research topic			*		*					
	6.1 Identify the main attributes and components of research designs in the social sciences		*					*			
<b>3. Apply advanced search principles to access, locate information, organize sources systematically, and</b>	P.1: Identify disciplinary citation styles & software practices	*									
	P.3: Assess & select appropriate citation tool	*									
	P.4: Import citations and generate a bibliography	*									

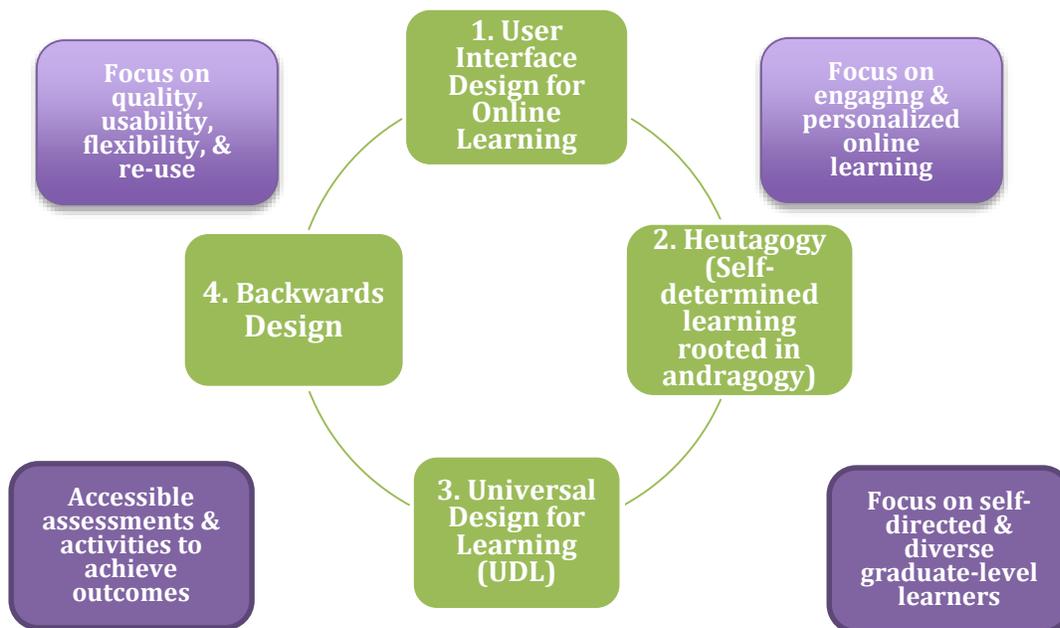
follow established citation practices.  <i>GDLE (Application of Knowledge)</i>	3.3 Apply advanced web-based & boolean search techniques				*	*	*				
	4.2 Investigate, apply, & chart search strategies across a range of research tools				*	*					
	4.4 Organize information sources & citations systematically	*				*					
4. Evaluate the value, authority, accuracy, timeliness, scope, and point of view or bias of information and research sources.  <i>GDLE (Awareness of Limits of Knowledge)</i>	4.3 Evaluate literature reviews					*					
	6.2 Evaluate the validity & reliability of research studies using specific criteria					*		*			
	6.3 Understand how contexts & culture shape the authority that confers value to information							*	*		
	8.1 Identify & interpret the different ways in which information can hold value							*	*	*	
5. Examine the policies and practices surrounding scholarly communication, the ethical use of information, the rights of authors, formats for publication, and the metrics used to evaluate scholarly contributions  <i>GDLE (Communication Skills)</i>	1.2 Identify research support services at your institution		*		*	*					
	7.1 Analyze formats & publication options, licensing available to scholars								*	*	
	7.3 Identify various criteria & metrics used to determine the value of scholarly works								*		
	8.2 Interpret rights as an author & how different publication methods impact them								*	*	
	8.3 Identify ethical standards required for scholarly research and publication							*		*	
	9.2 Understand & manage professional/scholarly persona		*								*
6. Reflect on the development of research skills and knowledge about approach to scholarship.  <i>GDLE (Professional Capacity/Autonomy)</i>	P.1 Identify personal citation needs & software preferences	*									
	P.2: Assess & select appropriate citation tools	*									
	1.1 Assess strengths & areas for development as a scholar		*	*	*	*	*	*	*	*	*
	2.3 Develop habits of reflective practice & collaborative information-seeking			*				*			
	9.1 Identify venues & forms of scholarly communication within particular discipline								*		*
	9.3 Explore how research & knowledge may be mobilized		*								*

## Statement of Design

As defined in the Association of College and Research Libraries' (ACRL) [Framework for Information Literacy in Higher Education](#), *threshold concepts* serve as portals to new ways of thinking and understanding within a given discipline (ACRL, 2014). Combining ARCL's six information literacy threshold concepts with Ontario's [Graduate Degree Level Expectations](#) (GDLE), the modules' learning outcomes equip Ontario graduate students with a "repertoire of understandings, practices, and dispositions focused on flexible engagement with the information ecosystem, underpinned by critical self-reflection" (ACRL, 2014).

The nine ALRS modules are organized by four overarching research phases: 1) Exploration & Inquiry; 2) Investigation & Organization; 3) Analysis & Evaluation; and 4) Creation & Communication.

The ALRS modules are grounded in four main conceptual frameworks that reflect current approaches to teaching and learning while ensuring high quality, interactive experiences for online graduate students (See Figure 1). Best practices for undergraduate, face-to-face learning experiences, as identified by Chickering and Gamson's landmark study (1987), are expanded upon and applied to an online and graduate-level learning context (Arbaugh & Hornik, 2006) (see Figure 1). In particular, this project's pedagogical approach draws upon research-based models of interface design for learning, including Kjell Erik Rudestam and Schoenholtz-Read's *Handbook of online learning 2nd ed.* (2009) and Shneiderman's *Designing the user interface* (2009). Other conceptual frames include heutagogical practice, which embraces learner-centred design and self-directed learning (Blashke, 2012); universal design for learning (UDL), which promotes equitable, barrier-free access to learning (Rose & Meyer, 2002; CAST, 2011); and backwards design, for effective curriculum development (Wiggins & McTighe, 2005).



**Figure 1: Design Framework.**

## References

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