

## Designing an assessment rubric

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Developing rubrics is never easy, but done well, the effort is well worth the time spent. Used well they can reduce variation between the grading outcomes where there are multiple assessors and they can reduce student appeals because they can be a ready guide to explain decisions. Unfortunately, while rubrics abound, many fail to achieve the clarity that the users, students and assessors, need. This is often because the levels of performance are rarely grounded in evidence based learning frameworks, but are dependent on terms such as satisfactory, excellent, advanced and the like, that provide very little in the way of reference points in terms of standards of performance. Alternatively, the levels of performance are quantified by terms such as 'a little', 'more of' and 'less of' and 'a lot'. These too are poor indicators for students to assess their own work before handing it in for assessment or for large numbers of assessors to gain any consistency in their assessment judgements due to the subjectivity of such terminology.

Developing useful rubrics requires a sound knowledge of the subject matter and experience in teaching and assessment that, over time, develops an appreciation of the challenges students face in mastering the learning outcomes. This is sometimes called "pedagogical content knowledge" Shulman (1986). This is the pedagogical knowledge or 'wisdom' gained from working with students and translating the learning outcomes into incremental understandable chunks to make the learning possible for students to master. Shulman also described that such teacher-generated knowledge as that which distinguishes an expert in the discipline from a teacher of the discipline. For example, while a mathematician may have an advanced command of the discipline, an expert teacher of mathematics knows not only the content but how to make it understandable by a novice learner. It is this kind of knowledge integrated with educational learning frameworks that are the foundation for generating useful assessment rubrics.

At the end of this guide is a generic assessment rubric (see page 10. This rubric is also provided as a download document that readers are invited to download and use). It is designed for those not used to developing rubrics to cut and paste and to translate the language of framework to develop rubrics that best reflect the language of their discipline. The generic rubric provided is grounded on the idea that assessment should assess not just **what** is learned but also **how well** it has been learned (Biggs, 1982). The generic rubric is grounded in conceptions of learning qualities that have been identified in credible and systematic research on learning in education and some in higher education specifically. They address intellectual and cognitive development, and ethical/moral reasoning. Some of these frameworks are outlined briefly in the pages prior to the generic rubric.

The resulting rubric is intended to assist departments and disciplines articulate what they believe is worth learning (**what to learn**) in their discipline and how the various levels or standards of attainment are recognised (**how well was it learned**). It is not expected that all the attributes and indicators will be used in every course and every discipline. The following guide has been written based on the taxonomies that follow and is intended for curriculum designers and educational leaders to translate it to align with the learning attributes and standards in their own disciplines.

This generic rubric can be used in a number of ways.



1. As a guide in curriculum design. The rubric can be used as a checkpoint to ensure that the knowledge, skills and capacities deemed important are included in the educational design and the teaching, learning and assessment strategies.
2. As a framework for teaching teams to clarify, negotiate and determine a commonly held frame of reference for the programme they teach and assess.
3. For communicating learning expectations to students.
4. As a feedback tool to provide students with an idea of where they sit in a framework of orderly development towards expertise.
5. As a peer and self-evaluation tool for students and to develop students' self-regulation capabilities.
6. As a guide for assessors to aid *consistency*, *accuracy* and *representativeness* in interpreting and grading students learning outcomes.

## What's worth learning in higher education

Designing and planning for student learning is demanding. It goes far beyond considerations of what content to include in the curriculum. In student learning centered curriculum development, the following questions are central:

- What's worth learning in higher education?
- What kind of approach to teaching and learning tasks will engender the kinds of learning that is important in higher education?
- How can we determine if students have learnt what we wanted them to learn?
- How can we give students feedback that will help them to be their own critics in the future and to independently direct their own learning?

## What is POSSIBLE to Learn?

Reflection on what might be possible for students to learn or develop as a result of engaging in a course of study in higher education, might include a taxonomy of skills, knowledge and capacities to:

- Conduct systematic research including collecting, analysing and organizing ideas and information
- Communicate coherently in writing and verbally to express ideas and convey information
- Solve problems, including problem posing, hypothesizing, setting objectives and evaluation
- Using mathematical ideas and techniques to solve problems
- Self-manage: including planning, prioritizing and organizing activities
- Work cooperatively and collaboratively with other individuals and in teams

- Select and use appropriate technologies and take up new technological affordances
- Undertake personal, critical self-reflection and provide others with constructive feedback
- Empathise with others' experiences with which they are unfamiliar
- Form opinions based on evidence and take a reasoned stance on a social issue

## Learning is not just Learning to Reproduce Fact on Demand

There are many ways to think about learning. Different forms and styles are appropriate for different objectives. Most higher education providers define a set of graduate capabilities. Curriculum designers are required to demonstrate how their course of study will address the graduate attributes to ensure that students do graduate with demonstrable evidence that they have achieved the prescribed knowledge, skills, capacities and dispositions.

One of the goals of all higher education teaching is to encourage analytical reasoning capabilities that can be transferred to new contexts. It is important to recognise that higher education courses are responsible for **developing** student thinking and reasoning so that they leave higher education functioning at a higher level of thinking than at that which they entered. This is particularly important to consider in undergraduate courses.

Academics universally describe their ideal of higher education as teaching 'critical thinking'. Just exactly how this capacity is recognized is often not clear, nor is it universal. In practice, critical thinking can look quite different in each discipline, but it is rarely articulated in concrete terms to students that they can appreciate what is expected of them. Thus, students are often left wondering just what it is they must achieve. It is a little like asking an athlete to make a high jump before they get to see the apparatus and without telling them just how high they must jump. It is extremely important for teachers in higher education to have a clearer concept of what critical thinking means in their discipline so that it might be communicated to students and to be an important consideration in the development of learning tasks and grading rubrics.

What follows is a number of frameworks that inform a description of critical thinking in a discipline and how it might be distinguished from lower levels of thinking. Not all of these need to be used in developing rubrics, but together they can be synthesised to develop rubrics that give students and assessors a clearer, consistent and more accurate understanding of learning expectations. Blooms Cognitive Taxonomy (1956)

In 1956 Bloom headed a group of educational psychologists who published the well-known Blooms Taxonomy of Learning to distinguish the qualities inherent in a hierarchy of intellectual behaviour. Bloom found that over 95 % of the test questions students encounter require them to think only at the lowest possible level, namely, that of the recall of information. Bloom identified six levels within the cognitive domain, from the simple recall or recognition of facts, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order, which was classified as evaluation. This taxonomy has been well used and further developed by Lori Anderson in the 1990s to place creativity at the top of the hierarchy.

Cognitive Level	Learning Behaviours
<b>Remembering</b>	<i>Recognising, listing, describing, identifying, retrieving, naming, locating, finding</i>
<b>Understanding</b>	<i>Interpreting, summarising, inferring, paraphrasing, classifying, comparing, explaining, exemplifying</i>
<b>Applying</b>	<i>Implementing, carrying out, using, executing</i>
<b>Analysing</b>	<i>Comparing, organising, deconstructing, attributing, outlining, finding, structuring, integrating</i>
<b>Evaluating</b>	<i>Checking, hypothesising, critiquing, experimenting, judging, testing, detecting, monitoring</i>
<b>Creating</b>	<i>Designing, constructing, planning, producing, inventing, devising, making</i>

Still other taxonomies have since provided different, but not conflicting, understandings of the qualitative differences in learning behaviour and attainment.

## Biggs and Collis Solo Taxonomy

The SOLO taxonomy was developed by Biggs and Collis (1982), and is further described in Biggs and Tang (2007). SOLO stands for: **Structure of Observed Learning Outcomes**. This taxonomy describes levels of increasing complexity in a student's understanding of a subject, through five stages, which can be applied to any subject areas or disciplines. Not all students attain the higher stages and indeed not all teaching or assessment tasks lead them to attain these stages.

Stage	Learning Behaviour
<b>1 Pre-structural:</b>	Students are simply acquiring bits of unconnected information, which have no organisation and make no sense.
<b>2. Uni-structural:</b>	Students can report single facts and constructs and make simple and obvious connections, but their significance is not grasped.
<b>3 Multi-structural:</b>	Students know a number of facts, but can make few connections between them and the significance of the whole.
<b>4 Relational</b>	Students know and understand a significant body of knowledge and appreciate the significance of the parts in relation to the whole.  It is desirable for all university students to reach this level. Biggs called it the 'B' grade level. Most universities correlate this with a Credit.



Stage	Learning Behaviour
5 Extended abstract	Student make connections not only within the given subject area, but also are able to evaluate the quality of the ideas, transfer the principles and ideas underlying the specific instance and generate new ways of using the conceptual knowledge.

## The Florida Taxonomy

The *Florida Taxonomy*, (Givens Fisher and Grant, 1983) focuses on cognitive attainment and is an elaboration of Blooms 5 level taxonomy. It is reasonable to assume that good students should demonstrate thinking that exemplifies level five upwards. This research found that university professors (teachers) when teaching rarely model thinking that exemplifies reasoning beyond levels 1-3, in fact, some fail to demonstrate thinking beyond level one. You might like to use the blank column to describe what this level might look like in your discipline.

**Florida Taxonomy Exercise:** Consider what level of thinking your assessment tasks encourage.

General	In your discipline
<p><b>1. Knowledge of specifics</b></p> <p>(Reads, spells correctly, identifies by name, defines meaning, cites specific facts, describes events)</p>	
<p><b>2. Knowledge of ways and means of dealing with specifics</b></p> <p>(Recognises symbols, cites rules, gives chronological sequences, steps of process, describes methods, cites trends, names classification systems or standards)</p>	
<p><b>3. Knowledge of universals and abstracts</b></p> <p>(States and names generalised concept or idea, principle, law, theory)</p>	
<p><b>4. Translation</b></p> <p>(Restates in own words or briefer terms, gives concrete examples of an abstract idea, translates verbalisation into graphic form)</p>	



General	In your discipline
<p><b>5. Interpretation</b></p> <p>(Gives reasons, shows similarities, differences, summarises or concludes from observation of evidence, shows cause and effect relationships, gives analogy, simile, metaphor, performs a directed task or process)</p>	
<p><b>6. Application</b></p> <p>(Applies previous learning or principle to new situations, applies abstract knowledge in a practical situation, identifies, selects and carries out process)</p>	
<p><b>7. Analysis</b></p> <p>(Distinguishes fact from opinion and from hypothesis, and conclusion from statements, which support it. Points out unstated assumption shows interaction or relation of elements, points out particulars to justify conclusion, checks hypotheses with given information, distinguishes relevant from irrelevant statements, detects error in thinking, infers purpose, point of view, thoughts, feelings, recognises bias or propaganda)</p>	
<p><b>8. Synthesis (Creativity)</b></p> <p>(Reorganises ideas, materials, processes, produces unique communication, divergent idea, produces a plan, proposed set of operations, designs an apparatus or structure, devises a classifying scheme, formulates hypotheses, makes deductions from abstract symbols, propositions, draws inductive generalisation from specifics)</p>	
<p><b>9. Evaluation</b></p> <p>(Evaluates something from evidence)</p>	

Givens Fischer, and Grant (1983) *Studies of College Teaching*, Lexington Press, Lexington

## Perry's Levels of Ethical-Moral Reasoning

William Perry (1999) conducted significant research on the ways that students' social and moral reasoning developed. From this extensive study, he outlined an observable scale of development in students' moral reasoning. He argued that many students, when they arrive at university, largely think in absolute terms. Absolutist thinking is recognisable in classroom discussions and written assignments in which arguments are constructed as **either right or wrong** and they are deemed so **because an authority has declared it so** not through any systematic consideration of supportive evidence. The goal of teaching these students is to



establish conditions in which students have cause to **doubt the feasibility** of such **'black and white'** thinking.

Perry proceeded further to elaborate on eight further levels of moral reasoning. Perry's argument is that it is the tasks of teaching to provide challenges that enable students to progress through nine levels of development. The goal of teaching is to understand the level of thinking that your students demonstrate and construct learning experiences that encourage student reasoning to progress to a higher level. For a clear synthesis of Perry's nine levels, see Chapter 2 in *Teaching at its Best* (Nilson, 2003). The following taxonomy is a further consolidation of the concepts to just five levels.

### Five Levels of Ethical and Moral Reasoning (based on Perry, 1999)

Type	Levels of thinking	Source
1) <b>Dualistic</b>	Black and white simplicity.	AUTHORITY Absolute truths given by an authority figure.
2) <b>Multiplicity</b>	Recognition of uncertainty.	AUTHORITY Ambiguity is a temporary condition. Still seeks ultimate truth from authority.
3) <b>Relativism</b>	All views are valued equally with the limits of a standard.	SOCIAL VALUES No one true interpretation. Reserves the principle of right and wrong.
4) <b>Commitment</b>	Makes commitments based on principles and evidence. Reflects on them and modifies them in the light of new evidence and experience	PERSONAL VALUES Examines the impact and implications of commitment. Sees them as trade-offs.
5) <b>Limited commitment</b>	Part of human growth.	UNIVERSAL PRINCIPLES Makes commitments based on principles and evidence. Reflects on them and modifies them in the light of new evidence and experience.



## Review

The proceeding learning taxonomy frameworks are useful guides for reflections on what and how to teach and assess. The frameworks are not intended to be checklists but rather frames of reference from which you construct your own discipline-specific design for student learning and a rubric that will inform tutors' judgements and students' self-evaluation.

Setting out to achieve these learning outcomes, however, is not straightforward. Academic teachers often find themselves weighing up the importance of teaching *merely useful prescribed knowledge* and skills against the importance of helping students develop **independent thinking** and *really useful* dispositions for lifelong learning. This teacher deliberation should reflect their sense of accountability to the requirements of their discipline or profession. They must balance ensuring safe practice and rigour against developing students' autonomy in learning and encouraging students' creativity and originality. Accountability in content, coverage and safe practice often encourage a **reproduction approach** to teaching and learning design. This approach limits the development of independence, creativity and critical thinking and reasoning that is required to achieve a **transformational** approach. These contrasts are observed in the significant differences between a fixed content-based curriculum and a flexible, student-learning-centred curriculum.

Here are four questions, to guide course design deliberations. Does the teaching and assessment engender:

- Higher order thinking described in the taxonomies?
- Observable connectedness to the real world and relevance for students?
- Engagement and conversation between students and between students and their teachers?
- Social support for student development of self-regulation of their learning and successful achievement?

## Author's Bio

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## References

Anderson, L W, and Krathwohl, D R (Eds.) (2001). *A Taxonomy For Learning, Teaching, And Assessing: A Revision Of Bloom's Taxonomy Of Educational Objectives*. New York: Longman

Biggs, J, and Collis, K. (1982) *Evaluating The Quality Of Learning: The SOLO Taxonomy* New York: Academic Press

Biggs, J., and Tang, C. (2007) *Teaching For Quality Learning At University* (3rd Edition) Buckingham: SRHE And Open University Press

Boom, B. S. (1956). *Taxonomy Of Educational Objectives, Handbook I: The Cognitive Domain*. New York: David McKay Co Inc.

Givens-Fisher, C. and Grant, G. E. (1983) 'Intellectual Levels in College Classrooms. Ellner', C. L. and Barnes, C. P. (Eds)

*Studies of College Teaching*, Lexington Books, Lexington.

Nilson, L. (2003) *Teaching at its Best: A Research-Based Resource for College Instructors: Second Edition*. Anker Publishing Co. Bolton, MA. ISBN 1-882982-64-9.

Shulman, L. (1986) Those Who Understand: Knowledge Growth in Teaching . *Educational Researcher*, Vol. 15, No. 2 (Feb. 1986), pp. 4-14



## Generic Assessment Rubric

Assessment Attributes	Levels of Attainment			
	Developing	Functional	Proficient	Advanced
<b>General description of the levels of attainment</b>	<p>Not yet to desired standard of knowledge or safe practice.</p> <p>Possibly a resubmit or a fail grade would be given.</p>	<p>Reached basic academic standards. Accurate knowledge of some facts and capable of limited safe practice.</p> <p>Work is rule based with limited or no translation and interpretation of concepts, skills and procedures and limited adaptations to meet situational factors unless aided.</p> <p>Would attract a pass grade at best, even if it displays a good standard of writing, grammar and referencing.</p>	<p>Has completely reached the expected standards of thinking and practice. Can function independently in novel contexts, adapting concepts, skills and procedures to meet situational factors.</p> <p>Demonstrates an appreciation of own limitations and can set personal learning goals. Given adequate teaching, assessment tasks resources, and student effort most students should be able to reach this standard.</p> <p>Would attract a credit grade.</p>	<p>Has gone beyond the basic expected standards. Exhibits high levels of independence and can use principles to generate new understandings and ways of completing procedures and can provide theoretically defensible arguments for their new interpretations and adaptations.</p> <p>Would attract a distinction or higher grade.</p>
<b>Knowledge and understanding</b>	<p>Limited to reproduction of required concepts and knowledge.</p> <p>Inaccurate reproduction of text and lectures.</p> <p>Cannot discuss concepts in their own words.</p>	<p>Encyclopaedic knowledge and can reproduce accurately required facts and definitions.</p> <p>Have adequate breadth, but limited depth of understanding of basic concepts.</p>	<p>Exhibits breadth and depth of understanding of concepts in the knowledge domain. Can use terminology accurately in new contexts and has transformed the ideas so that they can express them appropriately in their own words.</p> <p>Demonstrates an appreciation of the limits of their own understanding.</p>	<p>Exhibits accurate and elaborated breadth and depth of understanding of concepts in the knowledge domain. Knows how particular facts came to be. Demonstrates an appreciation of the limitations and temporary nature of conceptual knowledge in the discipline or field.</p> <p>Can generate and justify principles, protocols and hypotheses.</p>

# Online learning good practice

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Assessment Attributes	Levels of Attainment			
	Developing	Functional	Proficient	Advanced
<b>Psychomotor skills and procedures</b>	Cannot complete tasks and standard procedures unaided.	Can successfully complete most tasks largely unaided. Does not exhibit a capacity to make adaptations unaided to account for situational factors. Can practice safely under close supervision. Demonstrates limited capacity to evaluate their own behaviour and skill level and to establish personal learning goals.	Can independently complete all tasks and standard procedures successfully and safely. Can provide theoretical explanation for them. Can adapt standard procedures and protocols effectively to novel contexts and to meet situational demands and can theoretically defend the adaptations. Can critique their own practice and identify ways to improve.	Effectively executes procedures and skills that are embedded within a theoretical framework. Selects from a range of options, appropriate ways of proceeding taking contextual factors into account and providing a theoretically defensible rationale for doing so. Can prioritise and make compromises and provide a justification.
<b>Communication skills</b>	Poor verbal communication and listening skills accompanied by a lack of self-awareness of impact of their own communication on others.	Communicates ideas and relates sensitively to others. Can listen to the ideas of others and respond to them.	Communicates most effectively and explains ideas clearly. Actively listens to others and responds appropriately, reflecting a personal understanding of the viewpoint expressed. Asked follow-up questions.	Balances listening and responding. Synthesizes what has been heard and responds, evaluates and elaborates on ideas, offers and responds to alternative perspectives.
<b>Use of mathematical ideas</b>	Knows a few mathematical ideas and rules can use them with supervision.	Rule based, knows basic concepts and rules and can use them to solve problems and in novel contexts. Requires support for transferring to new situations.	Thorough and accurate understanding of concepts and processes and can analyse and apply them in new situations.	Uses principles and theories accurately. Abstracts and applies them in novel situations. Uses concepts to build new knowledge and understanding. Recognises the limitations of current thinking. Is open to new ways of mathematical thinking and problems solving.

Assessment Attributes	Levels of Attainment			
	Developing	Functional	Proficient	Advanced
<b>Reasoning</b>	Personal and anecdotal.	Rule based, derived largely from authority (texts, teachers, authority figures). Mostly black and white thinking. Little interpretation or translation.	Can recognise competing explanations and can identify the relative merits and limitations of an argument or position. Can describe and defend their view or position.	Uses principles to formulate a position or an argument. Can articulate the limited nature of their argument and can challenge boundaries of disciplinary understanding. Open to new information and to rethinking their own viewpoint.
<b>Analysis</b>	Personal and anecdotal.	Descriptive and anecdotal with limited use of theoretical frameworks. Limited capacity to identify the complex factors within a larger idea or context. Limited capacity to synthesise a number of ideas into a larger argument.	Can break large ideas, situations or problems down into components and explain each using the theoretical ideas and concepts of the discipline. Can synthesise a number of concepts or factors into a larger idea. Can evaluate the salience and limitations of arguments.	Analysis is sophisticated with a balance of theory and personal reflection. Capable of generalising from personal reflection on theoretical ideas or real life experiences to formulate principles and evaluate the efficacy of ideas from a number of standpoints.
<b>Ethico-moral reasoning</b>	Black and white thinking. Dependent on the views of authority and experiences difficulty in formulating own opinion or in hearing the efficacy of another's opinion.	Multiplistic or relativistic thinking. Still largely dependent on the views of authority to form an opinion. Can hear differences in viewpoints but is persuaded by majority viewpoint. Difficulty in formulating conclusions.	Evaluates ideas to formulate and justify personal conclusions. Recognises the need for compromise in decision-making. Can recognise the competing interests in arguments and identify the ethical issues embodied in them.	Uses principles to decipher competing interests and views. Can elaborate on the ethical and moral positions inherent in their personal viewpoints and actions. Articulates a personal position, but is willing to accommodate and modify it should further persuasive evidence emerge.

Assessment Attributes	Levels of Attainment			
	Developing	Functional	Proficient	Advanced
<b>Professional and work based literacy</b>	<p>Fails to notice important information and factors in the workplace. Requires constant supervision. Unable to make independent decisions.</p> <p>Is not safe. Does not relate to colleagues and clients appropriately.</p> <p>Does not seek guidance through sensible questioning.</p>	<p>Can practice safely. Carries out most procedures without direct supervision. Notices basic contextual cues and asks questions. Attempts to relate to colleagues and clients. Functions largely through imitation, protocols and rules rather than through problem posing, critical reasoning and effective problem solving strategies. Finds little theoretical relevance for workplace practices.</p>	<p>Establishes personal learning goals. Practices safely, balances initiative and independence with seeking guidance and feedback. Uses/critiques theoretical learning in the workplace. Considers and prioritises alternative action. Relates professionally to colleagues and clients. Makes effective contributions to the workplace. Understands organisational structure, functions and contemporary social context and issues that impact on it.</p>	<p>Makes a major contribution to the organisation through judicious use of the academic learning. Has the capacity to notice important cues in the workplace environment. Can work independently and take initiative as well as co-operating effectively in a team. Investigates the organisation and understands the social, political and economic factors that impact on it. Establishes personal learning goals and monitors their own learning.</p>
<b>Cultural and global literacy</b>	<p>Fails to recognise cultural differences or issues. Does not recognise own biases or appreciate their culturally embedded values. Takes a fairly ethnocentric view on most issues.</p>	<p>Recognises their own viewpoint as one of a number of competing views. Understands that they have tacit personal biases to justify their opinions and actions. Recognises cultural differences and competing interests.</p>	<p>Recognises cultural differences and how they are enacted in the social life, economic privilege and personal and political empowerment and marginalisation.</p>	<p>Demonstrates a critical understanding of own cultural history and how it influences their interpretation of privilege and oppression. Able to articulate how social institutions perpetuate 'othering' and continued racialised practice and marginalisation.</p>
<b>Aesthetic appreciation</b>	<p>Is unable to engage in any discussion about aesthetics.</p>	<p>Is encyclopaedic in any discussion of aesthetics, using the language of lectures and texts appropriately, but reveals no informed personal views or ideas.</p>	<p>Is able to identify elements of a complex whole and can appreciate aesthetic qualities using course related concepts appropriately. Can compare the qualities of similar bodies of work.</p>	<p>Able to identify and comment on elements of a complex body of work. Demonstrates a capacity to understand the underlying ideology or genre of a body, critically evaluating its relative worth using course concepts. Suggests improvements for a body of work.</p>

# Online learning good practice

Assessment Attributes	Levels of Attainment			
	Developing	Functional	Proficient	Advanced
<b>Technological literacy</b>	Is not confident in using technologies. Needs support. Rule based.	Largely rule-based, but can function independently. Can transfer some learning from one platform to another.	Confident, independent user of a variety of technologies and platforms. Understands underlying principles and uses this understanding to move between platforms and modalities. Is open to technological change and development.	A sophisticated and independent adopter of new technologies to solve organisational and informational problems. Can adapt technologies to meet personal preferences rather than adapting practice to standard platforms. Creative, innovative and critical interaction with technology.
<b>Information literacy</b>	Uses immediately available information with little discrimination. Cannot and does not independently seek out and locate required information.	Can seek out and locate required information with minimal support. Does not always discriminate effectively between sources of information.	Can independently seek out and locate required information. Is selective, effectively discriminating between sources of information.	Independently seeks out and locates required information. Is selective and discriminates between sources of information. Adopts effective processes for storage and retrieval of information.
<b>Use of academic conventions</b>	Absence or inaccurate use of referencing and citation conventions.	Basic referencing accurate and use of a bibliography and or reference list. Sometimes lacks consistency, but is a reasonable acknowledgment of the sources of information.	Use of academic conventions such as referencing and citation is accurate, consistent and appropriate for the discipline.	Use of academic conventions such as referencing and citation is accurate, consistent and appropriate for the discipline. Able to adapt the approach to different disciplinary conventions.
<b>Use of academic writing and presentation grammars</b>	Fails to demonstrate an understanding of what is expected in presentation of learning products. E.g. use spell checker, sentences need verbs, poor punctuation, written in note form, no logical structure to their assigned tasks, no concern for their audience.	Adheres to most basic expectations regarding the formatting and presentation of work. E.g., titles name on work, introduction, conclusion, and reference list. Has correct sections for reports, case notes etc. Spell checked and grammatically correct.	Adheres to all expectations and conventions with all expected attributes present. Some translation and interpretation of the conventions to suit personal style and the specific execution of the task.	All expectations and conventions with all expected attributes present but have been creatively interpreted to suit personal style and the specific execution of the task. A unique but appropriate presentation of work.

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