

Module 4: Understanding the competences and values

Guidance material	4.1.2 What is Critical Thinking?
What is the purpose of this material?	<ul style="list-style-type: none"> This is a brief introduction to the competence of critical thinking
When to use this material?	<ul style="list-style-type: none"> When introducing the competences to teachers to support them in implementing this competence in their class programme.
With whom to use this material?	<ul style="list-style-type: none"> Teachers
Have you considered these materials first?	<ul style="list-style-type: none"> Introduce teachers to the SCF through: <ul style="list-style-type: none"> 1.2 Structure of the SCF 1.4 Prior knowledge brainstorm activity 1.3 Definitions matching activity For further information on each of the competences, including student progressions, see 1.6 Close reading of ADEC SCF – Framework Requirements & Exemplifications.
How to use this material?	<ul style="list-style-type: none"> This resource can be used in a range of ways, for example: <ul style="list-style-type: none"> Share with teachers and discuss it in staff meetings or departmental meetings. Encourage teachers to plan using the ideas in this resource. Discuss the ideas and then ask teachers to share their own ideas for teaching this competence. For more information on each competence read the Framework Requirements & Exemplifications section of the Abu Dhabi Education Council Student Competence Framework (SCF) for Private Schools - Competences for Abu Dhabi's 21st Century Learners (2014).
What resources or equipment are needed?	<ul style="list-style-type: none"> Copies of the Framework Requirements & Exemplifications section of the ADEC SCF for Private Schools (2014).

4.1.2 What is Critical Thinking?

Definition

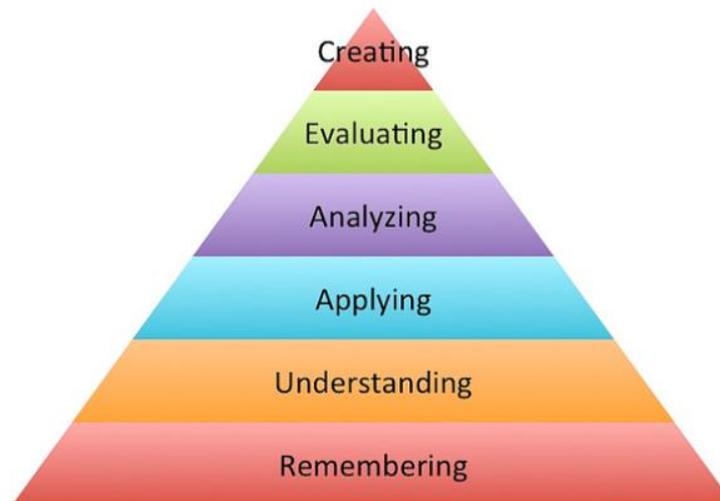
Critical thinking is the ability to use the power of reasoning to arrive at a solution, strategy or proposal. It describes the higher order thinking skills of analysis, application and evaluation. It is closely linked to logic, reasoning and deduction. (ADEC SCF for Private Schools Framework Requirements and Exemplification (2014) p.iii.16)

Background

This summary of research is provided as a background to this competence and further information can be found in the references below.

Facione (2011) contends that teaching people to make good decisions equips them to improve their own futures and become contributing members of society. Educators have long acknowledged the importance of critical thinking for student learning. In her literature review, Lai (2011) identifies that critical thinking involves both cognitive skills and dispositions, including open and fair-mindedness, inquisitiveness, flexibility, a propensity to seek reason, a desire to be well informed, and a willingness to entertain diverse viewpoints. Educational taxonomies can be useful critical thinking tools for both teachers and students as they map a sequence of skills and processes considered to be essential for learning. The most well-known of these is Blooms Taxonomy (Bloom et al., 1956) where educational objectives are divided into domains where learning at the higher levels are dependent on having attained prerequisite knowledge and skills at lower levels. Blooms Taxonomy was revised in the 1990's by a team of cognitive psychologists led by Lorin Anderson, a former student of Benjamin Bloom.

The New Version of Bloom's Taxonomy





Critical thinking is identified by the *ADEC Student Competence Framework for Private Schools (2014)* as one of a set of learning and innovation skills which enable a student to become a skilled, creative, flexible life-long and effective learner. Critical thinking describes the higher order thinking skill of analysis, application and evaluation. Effective critical thinkers think clearly and rationally and engage in reflective and independent thinking which allow them solve problems and make decisions. Teaching strategies that encourage collaboration and problem-solving are likely to involve students in higher order thinking. Critical thinkers are encouraged to pose questions, develop arguments, reflect and share ideas. Teachers need to be consciously nurturing and challenging critical thinking in their students.

Learners who are effective critical thinkers engage in reflective and independent thinking. They can gather, evaluate, analyse and synthesise information from a variety of sources and viewpoints and can use their acquired knowledge and understanding to construct and evaluate arguments and hypotheses. They are able to problem solve logically and systematically using all available information.

Learning Progressions

“The term ‘learning progression’ refers to the purposeful sequencing of teaching and learning expectations across multiple developmental stages, ages, or grade levels. The term is most commonly used in reference to learning standards—concise, clearly articulated descriptions of what students should know and be able to do at a specific stage in their education. In terms of the student competence framework, a learning progression is a road or pathway that students travel as they progress toward mastery of the skills needed for career and post compulsory education.”
(ADEC SCF for Private Schools Framework Requirements and Exemplification (2014) p.iii.7)

The *ADEC SCF for Private Schools (2014)* provides learning progressions from kindergarten / Grade 1¹ through to the end of Grade 12. These progressions provide clear descriptors of what should be expected within that competence at each grade level, for example:

At the end of Grade 2 learners who are effective critical thinkers are developing the ability to:

- solve a variety of problems using their knowledge and understanding
- state and support an opinion
- differentiate between beliefs

At the end of Grade 3 learners who are effective critical thinkers are developing the ability to:

- solve a variety of problems in multiple ways using knowledge and understanding
- state an opinion, evaluate other opinions
- understand that their beliefs represent a specific point of view

(Grade 2 and 3 Learning progressions for Critical Thinking in the *ADEC SCF for Private Schools (2014)*. p.iii.19-21)

¹ The *ADEC SCF for Private Schools (2014)* recognizes that not all schools are able to deliver all competences across all grades. *Table 5: A Road Map for the Delivery of the Competences across the Stages (p.iii.9)* provides schools with a ‘road-map’ to support them in making decisions on the delivery and development of the competences across the four stages of schooling.

المادة التوجيهية: 4.1.2 ما هو التفكير النقدي؟

الوحدة 4: فهم الكفاءات والقيم



While the performance indicators within these progressions do not change in essence, they do expand in breadth and depth. This expansion makes the progressions a useful tool for both teachers and students. Below are some tasks teachers can undertake to help them make best use of these learning progressions:

- Read the progressions carefully as this will help you further understand this competence and what skills and attitudes make up that competence.
- Before reading the descriptors for the grade you teach, read the descriptors for the grades below. These descriptors are the building blocks of what students have experienced in this competence before they reached this grade level. Ask students to share their experiences of these descriptors (e.g. “*Tell me your opinion about...?*”) and use their answers to help you plan your starting point.
- While reading the descriptors for each grade level and identify the ‘step up’ students need to make to move through the progressions. For example, at the end of Grade 2 critically thinking students are developing the ability to “*state and support an opinion*”, while in Grade 3 they “*state an opinion, evaluate other opinions*” (ADEC SCF for Private Schools (2014) p.iii.20). Therefore their step up is learning how to recognise and evaluate other people’s opinions. Ask yourself what this might look like, for example students might create a list of the words and phrases a person uses when they share an opinion (e.g. I think..., I would..., In my opinion...).
- Use the progressions when planning lessons to ensure your focus on a competence is based on the appropriate stage of the competence framework. The progressions are useful to refer to when giving specific feedback to students on their next steps in developing that competence.
- Support student to use the progressions to set goals and self/peer assess their own and others learning.

References

Abu Dhabi Education Council (2014) *Abu Dhabi Education Council Student Competence Framework (SCF) for Private Schools - Competences for Abu Dhabi’s 21st Century Learners*. Pearson Education Limited

Bloom, B., Englehart, M., Furst, E., Hill, W. & Krathwohl, D. 1956, *Taxonomy of Educational Objectives: the classification of educational goals. Handbook I: Cognitive Domain*, David McKay, New York.

Facione P.A. (2011). *Critical Thinking: What It is and Why it Counts*. Retrieved from <http://www.insightassessment.com/Resources/Independent-Critical-Thinking-Research/pdf-file/Critical-Thinking-What-It-Is-and-Why-It-Counts-PDF>

Krathwohl, D. R. (2002). “A Revision of Bloom's Taxonomy: An Overview.” *Theory into Practice*, 41 (4): pp. 212-18.

Lai, E.R. (2011). *Critical Thinking: A Literature Review*. Pearson Research Report. Retrieved from <http://images.pearsonassessments.com/images/tmrs/CriticalThinkingReviewFINAL.pdf>