



Assesment

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Assessment

- ▶ - The role of assessment in the educational process is determined by J. Biggs' rule: "Students learn not what is in the syllabus, but what they think will be assessed".
- ▶ Is that the same for medicine students ?????
- ▶ The effective and efficient delivery of healthcare requires not only knowledge and technical skills but also analytical and communication skills, interdisciplinary care, counseling, evidence and system-based care.



Assesment

- ▶ Assessment, as **Derek Rowntree** has defined, is about getting to know our students and the quality of their learning. Quality of assessment is one of the key features of good teaching.
- ▶ Setting appropriate assessment tasks should question students in a way that demands evidence of understanding. It is also important to use a variety of techniques for discovering what students have learned.



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According to Brown, (1990) assessment refers to a related series of measures used to determine a complex attribute of an individual or group of individuals. This involves gathering and interpreting information about student level of attainment of learning goals.

Assessments also are used to identify individual student weaknesses and strengths so that educators can provide specialized academic support educational programming, or social services



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- Evaluation is a key element of any activity, as it allows managing results, identifying deviations from the norm and making decisions aimed at eliminating the causes that did not allow to achieve the desired. Evaluation is based on comparing the current state of an object (process, phenomenon, system) with a benchmark.
- Evaluation is determining the value of something. So, more specifically, in the field of education, evaluation means measuring or observing the process to judge it or to determine it for its value by comparing it to others or some kind of a standard (Weir & Roberts, 1994)
- Evaluation in the educational process is the collection and analysis of information on what knowledge, skills and competences students have.



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Evaluation can, and should, however, be used as an ongoing management and learning tool to improve learning, including five basic components according to Kizlik (2010):

- 1) Articulating the purpose of the educational system.
- 2) Identifying and collecting relevant information.
- 3) Having ideas that are valuable and useful to learners in their lives and professions.
- 4) Analyzing and interpreting information for learners.
- 5) Classroom management or classroom decision making.

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- *The aims of assessment usually come down to two types:*
- *- 1) assessment needed to make decisions about support for specific learners;*
- *- 2) assessment used to shape management decisions at different levels of the education system, from the individual educational organisation to the national ministry of education.*

Differences between assessment and evaluation

(Weir & Roberts, 1994; Howard & Donaghue 2015; (Kellaghan & Stufflebean 2003)

- 1. The process of collecting, reviewing and using data, for the purpose of improvement in the current performance, is called assessment. A process of passing judgment, on the basis of defined criteria and evidence is called evaluation.
- 2. Assessment is diagnostic in nature as it tends to identify areas of improvement. On the other hand, evaluation is judgemental, because it aims at providing an overall grade.
- 3. The assessment provides feedback on performance and ways to enhance performance in future. As against this, evaluation ascertains whether the standards are met or not.
- 4. The purpose of assessment is formative, i.e. to increase quality whereas evaluation is all about judging quality, therefore the purpose is summative.
- 5. Assessment is concerned with process, while evaluation focuses on product.
- 6. In an assessment, the feedback is based on observation and positive & negative points. In contrast to evaluation, in which the feedback relies on the level of quality as per set standard.
- 7. In an assessment, the relationship between assessor and assessee is reflective, i.e. the criteria are defined internally. On the contrary, the evaluator and evaluatee share a prescriptive relationship, wherein the standards are imposed externally.
- 8. The criteria for assessment are set by both the parties jointly. As opposed to evaluation, wherein the criteria are set by the evaluator

Assessment functions

- ▶ In modern educational practice, different assessment functions are known for establishing the educational achievements of students, i.e. ascertaining, diagnosing, motivating and educating.
- ▶ **Final (summative)** assessments perform the ascertaining function. They are used to record the level of achievement of a student at the end of a programme or part thereof. However, assessment can and should fulfil a diagnostic function for both the student and the teacher.
- ▶ Both teachers and students can see what is "not learnt", what is "learnt well", what is "learnt perfectly", etc. and both can see what they have to work on and what they can pay less attention to. In this case assessment acts as a tool for implementing feedback and is called formative assessment.
- ▶ Formative assessment has, in addition to diagnostic, motivational and formative functions (the latter three are sometimes referred to by the generic term: formative assessment function).



Ways of assessment

- Knowledge and understanding are assessed through a combination of unseen examinations and assessed in-course assignments including quizzes, essays, presentations, reports and problem solving-based assessments.
- Intellectual skills are assessed through a combination of unseen written examinations, course work related to engineering, which requires analysis and problem solving.
- Practical skills are assessed through a combination of continuous formative assessment, summative assessments, and objective structured and/or practical examinations
- Transferable skills are assessed through a range of assignments built into the curriculum, including coursework reports, oral presentations and research exercises



Quality Assurance

- ▶ The quality assurance cycle assures the integrity of the assessment and reporting of student achievement against the performance standards for a subject. The interpretation and application of the performance standards is confirmed by a moderation process as part of the quality assurance cycle, ensuring students have fair, valid, and reliable results.
- ▶ There are four stages in the quality assurance cycle: planning, clarifying, confirming, and improving.

The Quality Assurance Cycle

1 Planning

Set up clear, appropriate and measurable goals and objectives in terms of policies, procedures, tasks and human resources

Planning

2 Implementation

Establish procedures to ensure the achievement of goals and objectives (e.g. development of partnerships, involvement of stakeholders, allocation of resources, and organisational or operational procedures)

Implementation

4 Review

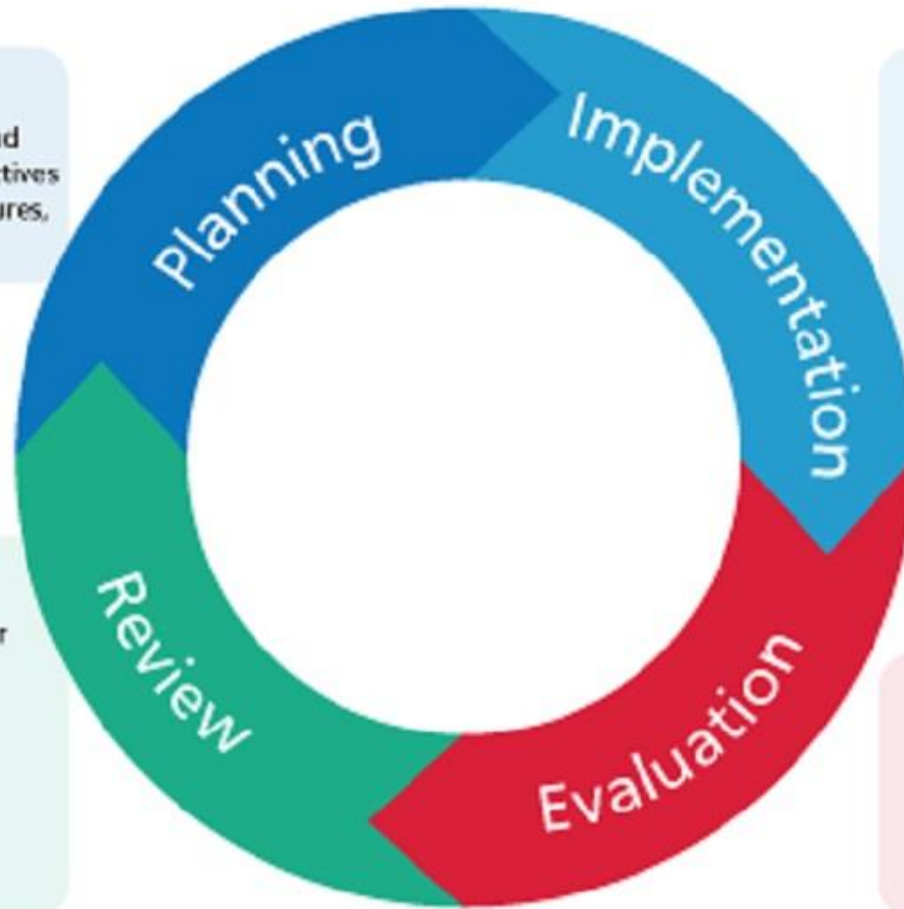
Develop procedures in order to achieve the targeted outcomes and/or new objectives; after processing feedback, key stakeholders conduct discussion and analysis in order to devise procedures for change

Review

3 Evaluation

Design mechanisms for the evaluation of achievements and outcomes by collecting and processing data in order to make informed assessment

Evaluation





Planning



- ▶ In the planning stage of the quality assurance cycle, teaching, learning, and assessment opportunities are devised to enable students to demonstrate their learning against all aspects and levels of the performance standards.
- ▶ During planning, teachers are responsible for:
 - preparing a teaching and learning program
 - developing a learning and assessment plan (LAP)



clarifying,

- ▶ In the clarifying stage of the quality assurance cycle, teachers develop and maintain an understanding of the performance standards and how to apply them consistently to student work.
- ▶ Teachers develop this understanding by:
 - working collaboratively with other teachers
 - participating in professional learning
 - Teachers apply this understanding to task design and the assessment of student work.
- ▶ See Professional learning for information about clarifying activities for teachers.



Confirming

- In the confirming stage of the quality assurance cycle the performance standards in each subject are applied consistently across schools to report student achievement.
- During confirming, teachers are responsible for:
 - assessing student evidence and provide a result in the range A to E for Stage 1 subjects and A+ to E- for Stage 2 subjects, at the end of the teaching and learning program, based on the performance standards for each subject
 - applying results consistently in all classes for each subject throughout the school
 - ensuring that their interpretation and application of the performance standards in a subject are consistent with those of other teachers
 - implementing the school's supervision and verification procedures to ensure the authenticity of student materials submitted for assessment
 - using Schools Online to complete results sheets and submit these to their principal or their principal's delegate, for verification and submission to the QAS Board.



Improving

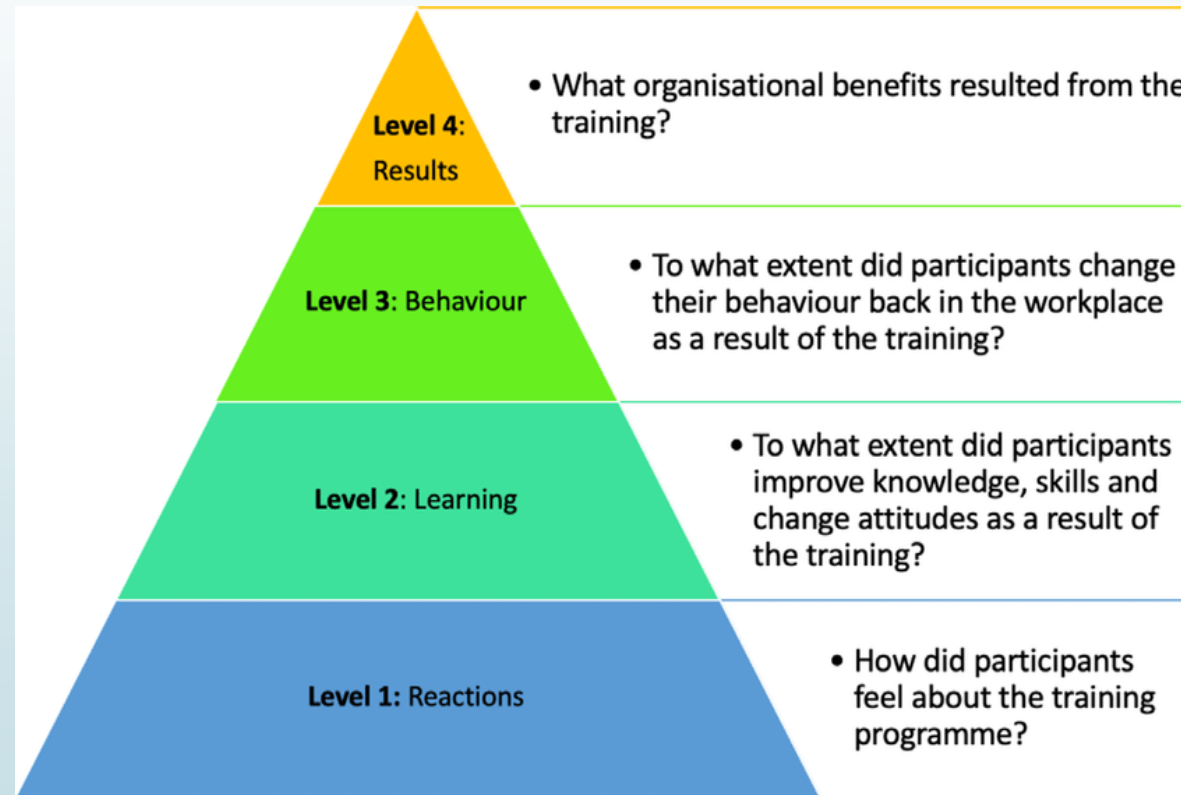
- ▶ In the improving stage of the quality assurance cycle, processes are monitored and analysed so that strategies for improvement can be developed.
- ▶ During improving, teachers are responsible for:
 - acting on feedback from the QAS Board
 - analysing and using the results of their students' learning to guide and strengthen their understanding and application of the performance standards, and improve their assessment design and teaching.



Assessment of learning outcomes

- ▶ Conducting regular assessment helps an academic program determine how the curriculum is contributing to the learning and development of students. Assessment helps programs:
 - Discover through empirical evidence "what students are learning"
 - Identify gaps in student learning areas
 - Inform teaching pedagogy by aligning best practices with learners' needs
 - Make informed decisions; guide curriculum, course action, and revision
 - Demonstrate overall program effectiveness; showcase student learning - "what works"

Kirkpatrick's training evaluation model





The original domains of Kirkpatrick

Level	Domain	Detail
1	Reaction	How well did the participants like the training?
2	Learning	What facts and knowledge were gained from the training?
3	Behaviour	Was the learning from the training utilised in the workplace?
4	Results	Did the training produce the overall intended benefits to the organisation?

Kirkpatrick's model: a working dinosaur

EVALUATION CATEGORY	TRAINER-CENTERED	LEARNER-CENTERED
PROGRAM OBJECTIVES	<p>The program objectives were clearly defined.</p> <p>The program objectives were covered by the instructor.</p> <p>The material was the right level of complexity for my background.</p>	<p>I understood the learning objectives.</p> <p>I was able to relate each of the learning objectives to the learning I achieved.</p> <p>I was appropriately challenged by the material.</p>
COURSE MATERIALS	<p>The course materials were well organized.</p> <p>The course materials complemented the course content.</p>	<p>I found the course materials easy to navigate.</p> <p>I felt that the course materials will be essential for my success.</p>
CONTENT RELEVANCE	<p>The material was relevant to my needs.</p>	<p>I will be able to immediately apply what I learned.</p>
FACILITATOR KNOWLEDGE	<p>The facilitator demonstrated a good understanding of the material.</p> <p>The facilitator shared his/her experiences in regards to the content.</p>	<p>My learning was enhanced by the knowledge of the facilitator.</p> <p>My learning was enhanced by the experiences shared by the facilitator.</p>

Barr Modification

Modification of Kirkpatrick's domains by Barr et al.

Level	Kirkpatrick's domain	Barr's modification
1	Reaction	No change
2	Learning	2a: Modification of attitudes/perceptions 2b: Acquisition of knowledge/skills
3	Behaviour	No change
4	Results	4a: Change in organisational practice 4b: Benefits to patients/clients

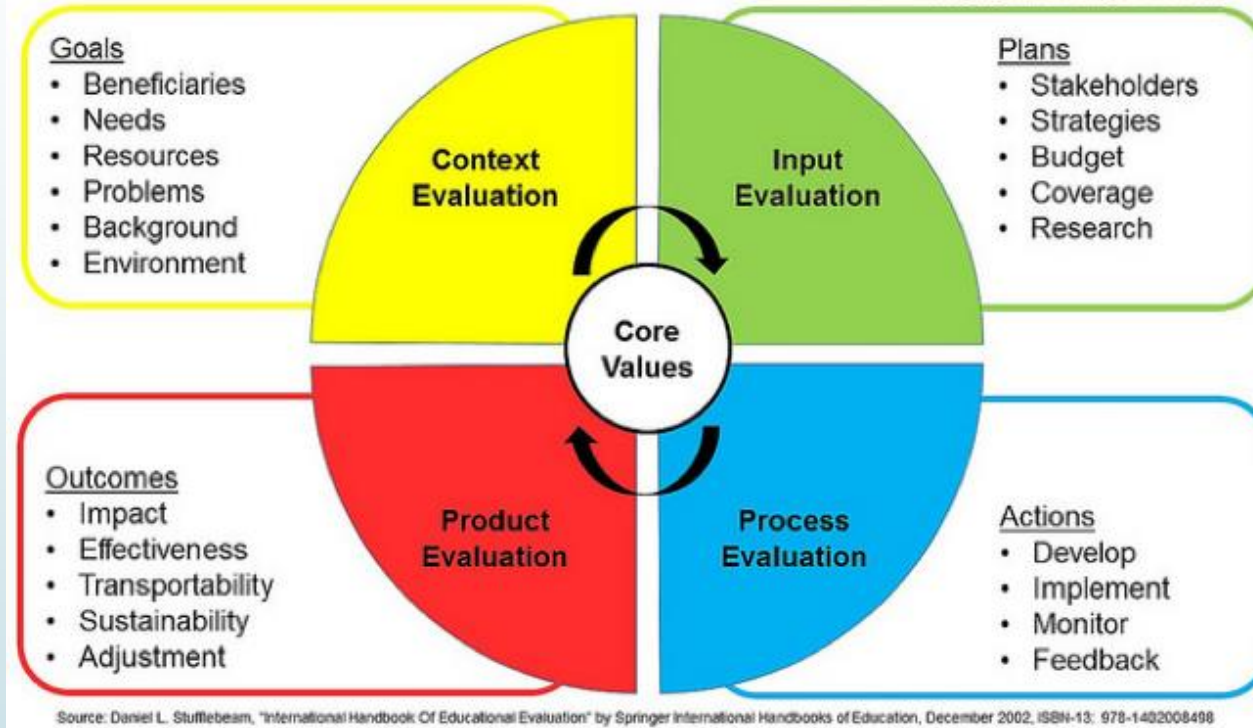


Acknowledging Kirkpatrick as a source, Belfield et al. proposed a five-level hierarchy:

- healthcare outcomes;
- healthcare professionals' behaviour, performance or practice;
- learning or knowledge;
- reaction or satisfaction of participants;
- and participation or completion.

Context, Input, Process, Product (CIPP) Evaluation Model

Designed by Ivan Teh RunningMan, March 2015





ROI Model

SATISFACTION

Did the learners enjoy the training?

LEARNING

Did knowledge transfer occur?

IMPACT

Did the learners' behavior change as a result?

RESULTS

Did the training have an impact on performance?

ROI

Did the value received from the training exceed its cost?

CIRO MODEL

C - CONTENT

Evaluate your company's current situation

The CIRO Model

I - INPUT

Identify the best option for training intervention

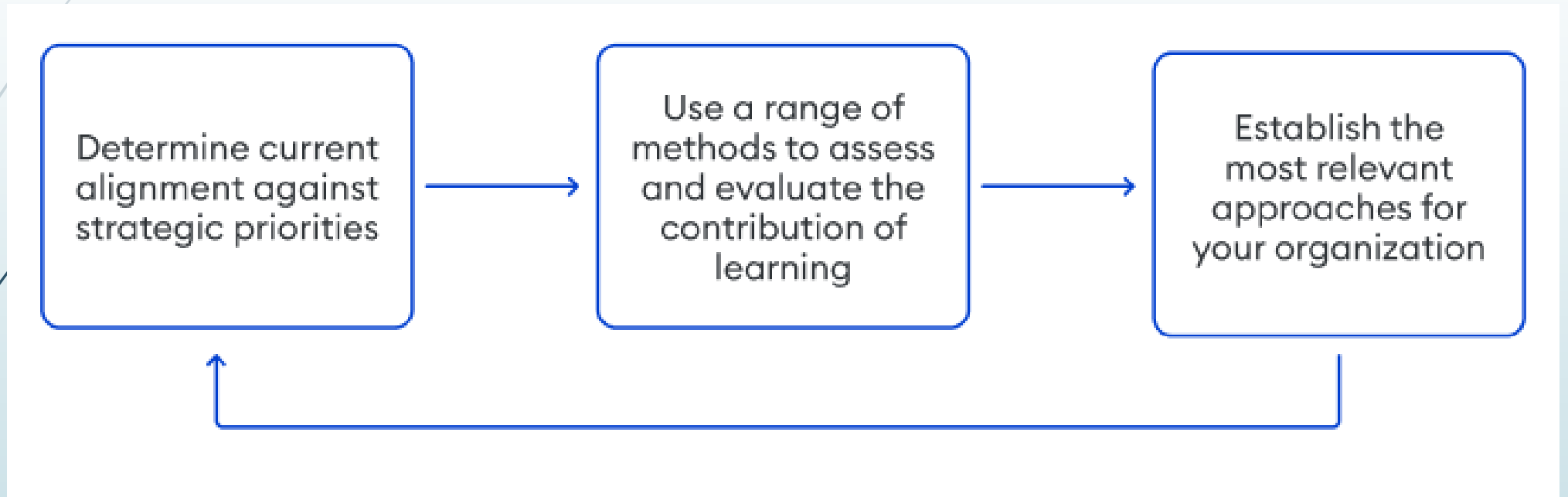
R - REACTION

Assess learners' reactions to the course

O - OUTPUT

Present the results of the training

Anderson Model

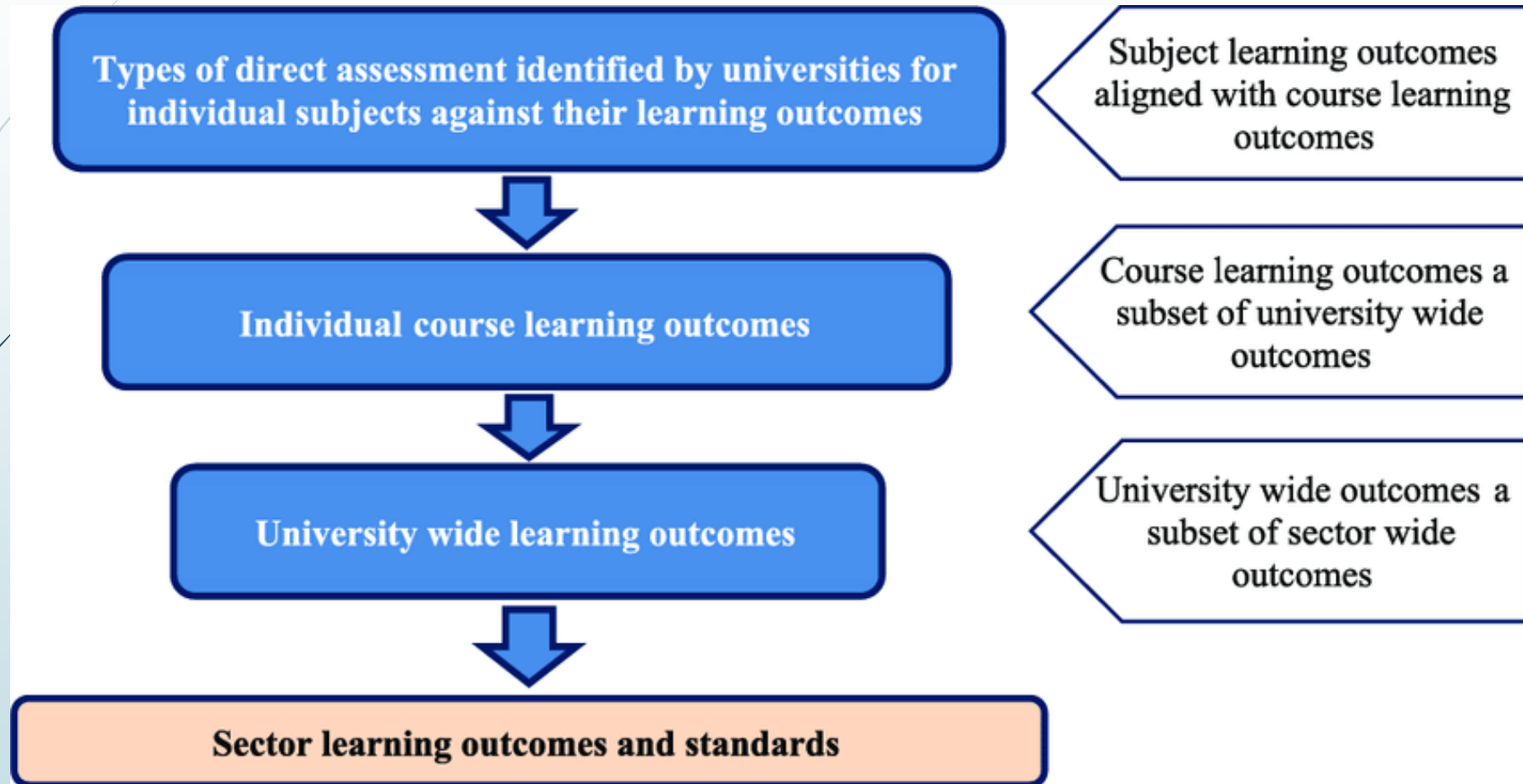




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- ▶ Learning outcomes are best included in quality audits when the institutions themselves are actively assessing student learning outcomes. When this is the case, the inclusion of learning outcomes in quality audits would then be fairly straight forward.

Martin and Mahat model ...







Assessment do we evaluate only the knowledges ...

- ▶ The effective and efficient delivery of healthcare requires not only knowledge and technical skills but also analytical and communication skills, interdisciplinary care, counseling, evidence- and system-based care.

Assessment tools

- **A rubric is** an assessment tool that clearly indicates achievement criteria across all the components of any kind of student work, from written to oral to visual. It can be used for marking assignments, class participation, or overall grades. There are two types of rubrics: holistic and analytical.





Steps and resources

1. Define the assessment criteria and levels of quality, preferably with the learners.
2. Give time to learners to practice and understand the use of the rubric.
3. Once learners are familiar with the tool, use it for self, peer or teacher assessment.
4. Based on the results of self, peer or teacher assessment, teacher gives feedback and guides the learners to improve their work.

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- ▶ **Holistic rubrics**
- ▶ **Analytic rubrics**



Student portfolio

- ▶ A student portfolio is a systematic collection of learner work and related material that depicts a learner's activities, accomplishments and achievements in one or more subjects. Portfolios allow for competence-based assessment by measuring the learner's growth and development. Learners develop a sense of ownership about their portfolios and understand where they made progress and where improvement is needed. Contents of a learner's portfolio may vary with the level of the learner and the types of assignments given in class.



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- ▶ In general, portfolios can be used for any of the following:
 - Student assessment
 - Displaying learning processes
 - Showcasing a student's best work

PORTFOLIO-BUILDING WEBSITES

- ▶ Wix - <http://www.wix.com>
- ▶ Weebly - <http://www.weebly.com>
- ▶ Portfoliopen - <http://www.portfoliopen.com>
- ▶ Cargo - <http://cargocollective.com>
- ▶ Wordpress - <http://wordpress.org>
- ▶ Flickr - <http://www.flickr.com>
- ▶ Indexhibit - <http://www.indexhibit.org>
- ▶ Vimeo - <http://vimeo.com>
- ▶ Deviantart - <http://www.deviantart.com>
- ▶ Behance - <http://www.behance.net>
- ▶ Carbonmade - <http://carbonmade.com>
- ▶ Big Black Bag - <http://www.bigblackbag.com>
- ▶ Blue Host - <http://www.bluehost.com>
- ▶ SmugMug - <http://www.smugmug.com>



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- Contents of a learner's portfolio may vary with the level of the learner and the types of assignments given in class. Some examples are:
 - Learner's work (assignments, assessments, evaluations, score sheets, sample products, attendance sheets).
 - Reflections, teacher observations, conference records, progress reports, worksheets, artefacts (poems, letter, reading logs and audio /videotape recordings, photos, sketches).



Steps and resources



1. Decide together on the portfolio content, such as samples of learner's work, reflections, teacher observations and conference records, and agree on timelines.
2. Develop assessment criteria and procedures to keep track of the learners' progress.
3. Plan for formal learner-teacher conferences as well as informal meetings in which progress is reviewed and discussed, and reflection encouraged.

► **Tip**

- Ask your learners to develop their portfolio online (E-portfolio) using Padlet. Padlet is an application where learners can easily create a virtual pin board to hold resources and to showcase their work.



Self-assessment

- ▶ Learners become better learners when they deliberately think about what they are learning and how they are learning it. In this kind of reflection, learners step back from the learning process to reflect on their learning strategies and their progress as learners. This encourages learners to become independent learners and increases their motivation.
- ▶ Self-assessment is about students developing their learning skills. . . . It is not primarily about individuals giving themselves marks or grades. And it is not about supplanting the role of teachers”. Boud (1995; p 17)

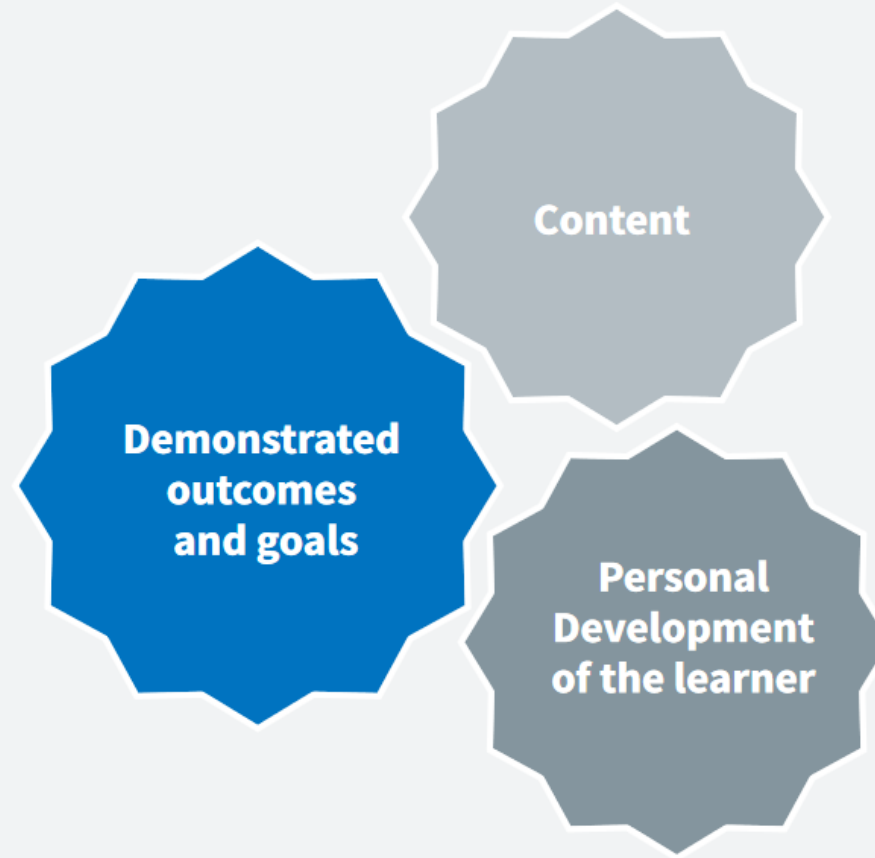



Figure 1: Learning in self-assessment: A dynamic relationship exists between content, demonstrated outcomes and goals and the personal development of the learner. Within self-assessment, it is the learner who decides, as the need arises, which 'cog' is emphasised (adapted from Taras, 2010).

Benefits, Barriers and Issues Associated with Self-Assessment (Leach, 2012; p 139).

Benefits	Barriers
Enhances learning, including deep and lifelong learning and metacognitive engagement	Some students are reluctant to self-assess; they feel they lack the necessary skills, confidence or ability to judge their own work
Prepares students for their role in participating in a democratic society	Students prefer and expect to be assessed by experts and see it as the teachers' responsibility
Makes students feel that they have some control over their own evaluation	Students are afraid of being wrong or are too harsh on themselves and are uncomfortable with the responsibility
Develops learner autonomy, cognitive abilities	Students do not like it and do not see benefit in it



Benefits	Barriers
Promotes active engagement with learning	Students cannot be bothered arguing that they have 'enough to think about as it is'
Promotes better understanding of content and increased quality and thoughtfulness on assignments	For some students cultural issues impact on selfassessment because giving themselves a good grade is considered inappropriate or boasting
Alleviates student anxiety and eases student- teacher conflict by demystifying the grading process	Who is the 'self' in 'self-assessment'? It involves one part of the self assessing another part of the self's actions and outcomes - 'it raises some deep questions about the nature of the self, self-awareness and self-monitoring'
Enhances personal or intellectual development or social competencies	Encourages the internalisation of accountability and may be linked to notions of surveillance and social control

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Peer-assessment

- ▶ One way for learners to internalise the characteristics of quality work is by evaluating the work of their peers. Peer-assessment involves learners reciprocally evaluating each other's work. To do this, they must have a clear understanding of what they are looking for in their peers' work. Evaluating peers' work enhances the evaluators' own learning and self-confidence. Peer-assessment empowers learners to take responsibility and manage their own learning and develop life-long assessment skills. It also enhances learners' learning through knowledge sharing and encourages them to engage with course material more deeply.

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WOOCLAP

- ▶ Wooclap is an instant polling software, that allows you to create quizzes polls and brainstorm for your students, in the classroom and remotely. To participate, students must connect with their device to the quiz site created by the teacher, answering the questions that will appear on the screen



Wooclap

- ▶ Propose 4-5 quizzes to the students at the end of the lesson on the topics just explained. In this way, the teacher can immediately understand in which topics the students show greater difficulty, taking up the more complex content in the next lesson;
- ▶ - provide students with immediate feedback on their learning of the content;
- ▶ - In addition to quizzes, it also presents other activities such as find on image and word cloud, with which it can be used to promote in students a greater ability to observe and argumentation of their own ideas, collecting in a short time the answers/opinions of all the participants.



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- In addition, it has the following advantages
- - it does not require the installation of apps
- - it does not require the registration of an account;
- - quizzes can be prepared before the lesson;
- - the teacher can keep track of the students' answers



Referencias



- ▶ Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, E. J., & Krathwohl, D. R. (Eds.). (1956). Taxonomy of educational objectives: The classification of educational goals. New York, NY: Longmans, Green and Co.
- ▶ <http://caipe.org.uk/silo/files/evaluations-of-interprofessional-education.pdf>