Learner-Centric Education Booklet

كتيب التعليم المتمركز حول المتعلم

This document is part of a series that defines, explains, and demonstrates Qatar University's five Education Excellence Themes.

Qatar University
Center for Excellence in Teaching and Learning
January 2021

Version 1.1
This a preliminary version, which will be subject to periodic review. Subsequent versions will be issued via the CETL

Introduction

Qatar University's mission is "to equip current and future citizens of Qatar with the skills, expertise and competencies they need to be able to contribute to, and lead, Qatar's development for the benefit of future generations" (Qatar University Strategy 2018–2022, p. 20). To achieve this, the university has rigorously pursued educational excellence. Having developed and implemented its Education Excellence Framework, the university aspires to be regionally recognized for the provision of holistic education. The five main themes of the Education Excellence Framework are: learner-centric, experiential, research-informed, digitally enriched, and entrepreneurial education. These five aspects of a holistic education will yield graduates who are well-rounded and who have attributes, competencies, and values that will enable them to maximize their future impact locally and internationally (Qatar University Strategy 2018-2022). This document is part of a series that defines, explains, and demonstrates Qatar University's five themes for education excellence. This document focuses on **learner-centric education**. The objectives of the document are to:

1. Motivate readers to relate the learner-centric education theme to their educational backgrounds, professional practices and characteristics as instructors at Qatar University.
2. Familiarize readers with theory and research on learner-centric education.
3. Demonstrate some of the teaching and learning skills required to implement learner-centric education.
4. Introduce strategies for applying learner-centric education in higher education.
5. Introduce methods of assessment appropriate for learner-centric education in higher education.

This document was created for Qatar University educators and attempts to distill, organize, and highlight key elements from the vast amount of research, literature, and information on learner-centric education that already exists in academia. This document references a wide variety of educational resources in order to identify critical points, perspectives, practices, and definitions of learner-centric education, and attempts to guide the reader through some of the steps necessary to structure and implement learner-centric educational practices in Qatar University contexts.

Overview of Learner-Centric Education

A Learner-centric approach (LC) is a method of teaching and learning that focuses on creating and implementing active roles of the learners by placing them at the heart (or centre) of the learning process as intentionally and frequently as possible. A learner-centric environment encourages students' interaction with each other and with the instructor. This approach encourages student reflection, critical thinking, dialogue, engagement, creativity, and collaboration to promote the development of effective, life-long learning skills. LC activities often emphasize solving problems, sharpening one's understanding using approaches such as study groups, team-based assignments, collaborative projects, etc.

In a learner-centric classroom, students are expected to be engaged and responsible. They must work to explore their own career interests and strive to produce quality work to enhance their learning. Additionally, instructors are portrayed as guides who assist students in constructing their individual system(s) of knowledge. Instructors design educational experiences to advance specific learning objectives, and support students as they work to achieve those expectations. Furthermore, instructors act as coaches, advisors, and facilitators of student learning. They must be willing to critically examine and evaluate their teaching practices and invest the time and effort required to archive positive, long-term change in their classes and curricula.

In a traditional teacher-centric approach, most class time is spent with the instructor lecturing and the students passively listening. Knowledge and skills are viewed as being "dispensed" by the instructor and "absorbed" by the students. In this approach, assignments and evaluations typically require students to work individually. In contrast, learner-centric approach attempts to shift the focus from the instructor to the students in order to engage them more directly and actively in all phases of the learning process.

Despite the educational community's enthusiasm for and increasing adoption of LC practices, change is always challenging, especially for students. It is important to note, students may initially reject the additional levels of effort and personal responsibility that LC classrooms demands and desire a return to more traditional (and less demanding) teacher-centric, lecture-based learning experiences. Anticipating some initial resistance among students to the increased demands of LC classes, educators might proactively develop and employ a mixture of teacher-centric and learner-centric pedagogies and activities. By combining teacher and learner-centric approaches, students can gradually become acclimatized to LC practices and benefit from a more balanced educational atmosphere.

Overview of Theory Supporting Learner-Centric Education

There are three main learning theories: behaviourism, cognitivism, and constructivism (Stevens, 2020).

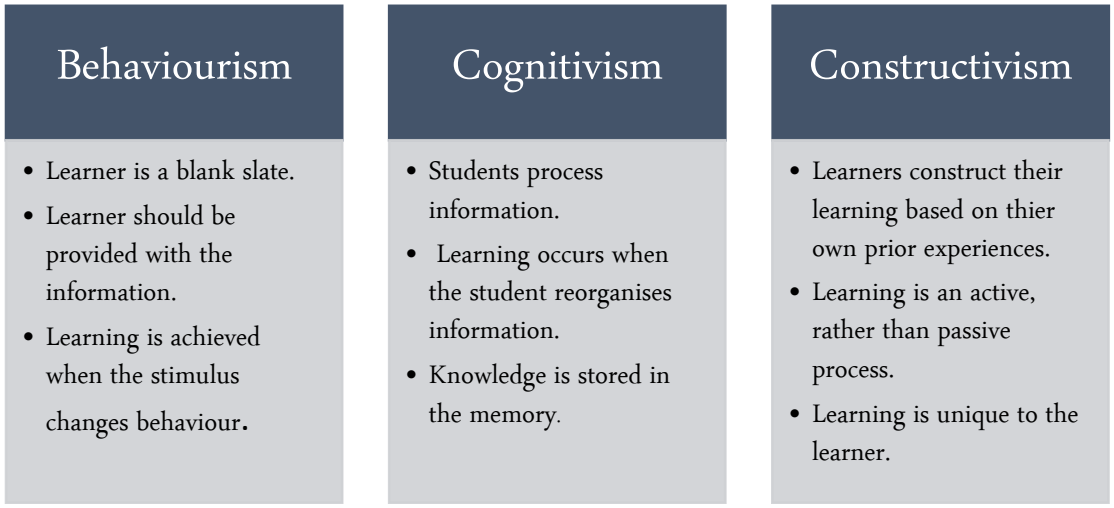


Figure (1) Main learning theories

LC is based primarily on constructivism theory. Constructivism is a learning theory that enables learners to participate actively in constructing their knowledge accompanied by the integration of learners' experiences (McLeod, 2019). Constructivism is based on four main principles: (1) knowledge, instead of being passively consumed, is constructed; (2) learning is described as an active process instead of one that is passive; (3) all knowledge is created within a social context, therefore socialization is needed; and (4) all knowledge is personal, therefore each learner, has a recognizable point of view depending on his/her values and current knowledge (McLeod, 2019). Constructivism is often misinterpreted as a philosophy requiring students to "reinvent the wheel," while, in actuality, it seeks to activate students' inherent curiosity about the universe and how things work. In order to accomplish this, students should be prompted to activate and integrate their current knowledge and real-world experiences, learn to hypothesize and evaluate their hypotheses, and eventually learn to make inferences and draw conclusions from their observations (Education WNET, 2004).

In conclusion, the focus in constructivist approaches is the learner, therefore affording students proper experiences will facilitate knowledge construction. In contrast to traditional teaching approaches where the focus is primarily on delivering information to students, constructivists strive to consider the meaning constructed by a learner's personal experience and how it is formed by the interaction between prior knowledge and new events.

Bloom's Taxonomy

In 1956, Benjamin Bloom proposed a framework for categorizing educational goals. Known as Bloom's Taxonomy, this framework has been applied and developed by generations of K-12 teachers and college instructors to create learner-centric classrooms. The taxonomy includes six aspects of learning, these are:

1. **Remembering:** Retrieving, recalling, and recognizing stored related knowledge from long-term memory.
2. **Understanding:** Constructing meaning by reading, exemplifying, classifying, summarizing, inferring, contrasting, and demonstrating from oral, literary, and graphic communications.
3. **Applying:** Carrying out or using a process for production or implementation.
4. **Analyzing:** Breaking material into component parts, deciding by differentiating, grouping, and attributing how the parts contribute to each other and to an overall structure or purpose.
5. **Evaluating:** making decisions by testing and criticizing depending on criteria and standards.
6. **Creating:** Bringing elements together to create a cohesive or functional whole; reorganizing elements into a new pattern or structure by generating, designing, or making.

Figure (2): Bloom's Taxonomy

Bloom's Taxonomy is a convenient way to set educational goals in a learner-centric classroom. It allows instructors to describe the degree to which their students need to understand and use concepts, to demonstrate particular skills, and to have their values, attitudes, and interests affected. More information on how to set educational goals based on Bloom's Taxonomy is given during regular workshops presented by the center of Center for Excellence in Teaching and Learning.

There is no single approach for implementing learner-centric educational practices. Instead, educators actively and creatively combine elements of authentic, collaborative, reflective and digitally enriched learning practices to develop and teach learner-centric curricula. These learning practices manifest themselves in teaching methods and strategies such as: (1) problem-based learning (PBL); (2) case studies; (3) just-in-time teaching; and (4) flipped classrooms.

1. Problem-Based Learning (PBL)

Problem-based learning (PBL) is defined as an instructional approach in which complex real-world situations are used as a vehicle to facilitate student understanding of concepts and values. PBL should facilitate the growth of skills such as critical-thinking, problem-solving and leadership in addition to gaining course-content knowledge. It also includes resources for collaborative work. In a PBL setting, the instructor provides a problem (without a single correct solution), to which students should need to investigate, explore, explain and resolve. The instructor acts as a facilitator guiding students and supporting them as they learn the necessary cognitive and collaboration skills. Students generally form small collaborative work groups that will formulate and analyse the problem, followed by identifying relevant facts that will support representation, understanding and generating a hypothesis regarding practical solutions. At the early stages of conducting PBL, students may encounter certain knowledge deficiencies, which will lead them research via self-directed activities. This process is quite circular, that is when students learn, they will apply their new knowledge, evaluate their hypothesis and reflect on the abstract knowledge they gained.

2. Case Studies

A case study is a teaching method in which a story (real or fictional) is used to demonstrate the theory or concept application in a real situation (Vanderbilt, 2020). The use of case studies depends on the intended instructional goal; they can be either fact-driven and deductive, where a correct answer is the key, or they can be driven by context where multiple solutions are possible. In both scenarios, instructors should seek to identify a “good case" in their various disciplines. Aspects of a good case include being relevant to the reader; assisting a teaching function; and requiring a dilemma to be solved. Additionally, the case should attempt to tell a story that is relevant to students, contains dialogue, creates empathy and has generality (Vanderbilt, 2020).

3. Just-in-Time Teaching (JiTT)

In just-in-time teaching (JiTT), students prepare for class either by reading from a textbook or using various resources to complete their assignments online. These assignments, usually called WarmUps or Puzzles, have complex answers that are submitted to the instructor a few hours before class starts. This enables the instructor to modify and adapt the lesson based on student performance on the assignments and "just in time" for the class. Significantly, JiTT supports interactive classroom environments and can encourage active learning and cooperative problem-solving. Additionally, it encourages students to be better prepared for classes and topics and engaged in what is taking place during the class (Brame, 2020).

4. Flipped Classroom

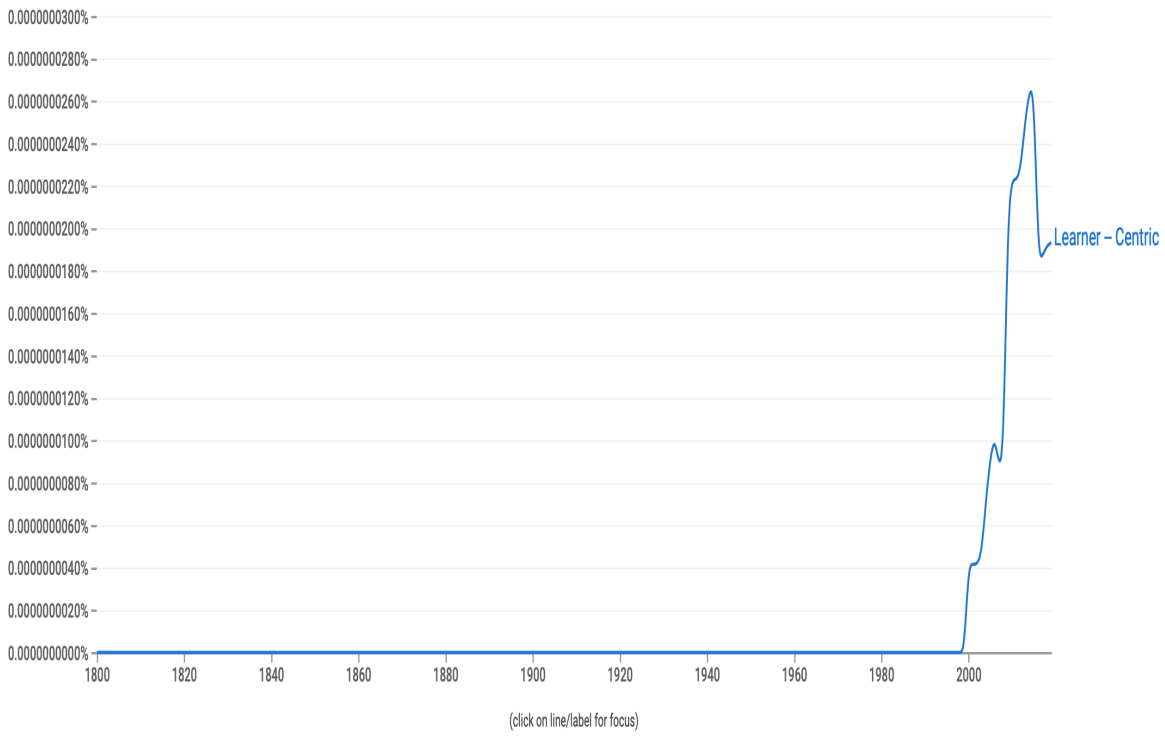
The flipped classroom is an active learning approach that places students at the center of the learning experience. It exposes them to the course material outside the classroom through lecture videos or readings, while utilizing class meetings for learning activities such as discussions, debates, or problem-solving. One of the flipped classroom's most important features is that it allows students to learn and develop at their own pace. In the event of lectures videos given prior to class meeting, students will have the ability to pause, replay or forward certain parts as needed (Zainuddin and Attaran, 2015). Students can also catch up on any missed material due to illness or other pressing events (Bergmann and Sams, 2012). As for in-class meetings, the absence of traditional lectures allows students to engage with each other, thereby encouraging peer-to-peer learning. A study by Fadol et al. (2018) found that students enrolled in a flipped classroom experience lower levels of higher absenteeism and higher engagement relative to students enrolled in a traditional class. The flipped classroom approach is also becoming increasingly reliant on technology-driven resources and web-based application, thus making it a "blended learning approach."

Assessment in Learner- Centric Education

Assessment in learner-centric education is multidimensional and generally involves evaluating and providing feedback on several small assignments instead of one main examination. In a learner-centric classroom, the assessment should be compatible with the teaching method designed and used to give students proper feedback on their progress in achieving learning objectives. The learner-centric approach shifts the focus from one summative assessment that utilises students' grades at the final stage of the learning period, toward several smaller varied forms of formative and constructive feedback during the learning process. In any form of assessment, the focus should be on personal improvement rather than competition as bellow table explains.

- **Formative Assessment:** Also called assessment for learning (AFL), feedback is given to students during their learning, to highlight learning gaps and areas for development. There are different ways to apply AFL: diaries, logs and journals, portfolios, peer- or self-assessment, negotiated assessment, projects, group work, and identification of one's own skills and competencies (Trumbull, Lash, & WestEd, 2013).
- **Criterion-Referenced Assessment:** In this method, the instructor assesses students relative to certain learning criteria. This is different from norm-based assessment, which assesses students against other students. A great benefit of this method is identifying areas where students develop and where they don't. This information is critical for both students and instructor. Bloom's Taxonomy integrates exceedingly well with criterion-referenced assessment practices.
- **Peer- and Self-Assessment:** In the learner-centric education, students' active involvement in the assessment is a core principle. Self-assessment will support students in understanding their role as active agents in the learning process and assessment procedures. It will also support them as they evaluate their learning outcomes, processes, and styles through continuous reflection (Harris & Brown, 2013). Self- assessment can be applied in various stages during the learning activity. Areas for involving students in assessment include providing students opportunities to discuss the assessment criteria, provide self-assessment comments, suggest and negotiate self-assessment grades.

A Google Ngram Reader search of the term Learner-Centric Education



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This document is also available in Arabic. We wish to convey our thanks to the College of Education at Qatar University for its valuable contribution.

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