

**Module1: Unit 2 Pedagogical Theories Supporting Blended and Collaborative Approaches**

# Introduction to Blended Learning and Collaborative Teaching Methods

## 1.2 Pedagogical Theories Supporting Blended and Collaborative Approaches

### *Pedagogical Theories supporting Blended Learning*

Since the majority of people on the planet have completed their education mostly in-person in classroom settings, we typically refer to the blend of online and in-person instruction as a unique type of learning known as "blended." But eventually, we anticipate that this format will be accepted as the norm, and the phrase "blended learning" will be completely abandoned.

According to Bonk and Graham (2006), blended learning is "part of the ongoing convergence of two archetypal learning environments" (p.2). The effects of the two delivery methods are not identical, though, and the way you integrate varies depending on whether you come from a background in online learning or traditional classroom instruction.

For centuries, traditional in-person, face-to-face classroom instruction has been the primary mode of delivery. Opportunities for distributed and remote teaching and learning are far more recent, especially when it comes to technology-enabled learning. The initial application of online education was in distant learning, when students completed their coursework entirely online. Later on, ideas of combining online or distance learning with traditional classroom instruction emerged.

The availability of technology for learning has only increased in the last few decades. Because it developed so swiftly, the usage of these technologies was put into practice long before we had a clear understanding of their effects and the distinctions they caused for both teachers and pupils.

We can now carefully consider how to combine the two delivery modes of in-person and online teaching and learning since we have more evidence, better theories and models, and a clearer understanding of how to use each.

An essential summary of the main blended learning theoretical frameworks is given by Wang, Han, and Yang (2015). Two frameworks—the Community of Inquiry and the Complex Adaptive Blended Learning System—will be the main subjects of discussion.

[A Guide to Blended Learning Chapter 2: Theories Supporting Blended Learning](https://www.youtube.com/watch?v=nha62Gs6t-E&ab_channel=CommonwealthofLearning)

### *The Complex Adaptive Blended Learning System*

Like animals or organisations, Complex Adaptive Systems (CAS) are dynamic networks of interconnected components that alter and adapt in response to both internal and external changes. They behave in an emergent manner, in which interactions between constituents result in unforeseen consequences. From biology to economics, CAS theory is utilised to explain phenomena in many different domains.

[Complex Adaptive Systems (CAS): Explained](https://www.youtube.com/watch?v=kEld3h_JTx0&ab_channel=B2Bwhiteboard)

Because of its emphasis on the needs of the student, the Complex Adaptive Blended Learning System, also named as CABLS is widely accepted and applicable everywhere in the globe, from the lowest levels of education to higher education. Students are the primary emphasis of this paradigm, with all other elements influencing one another.

See Figure 1:

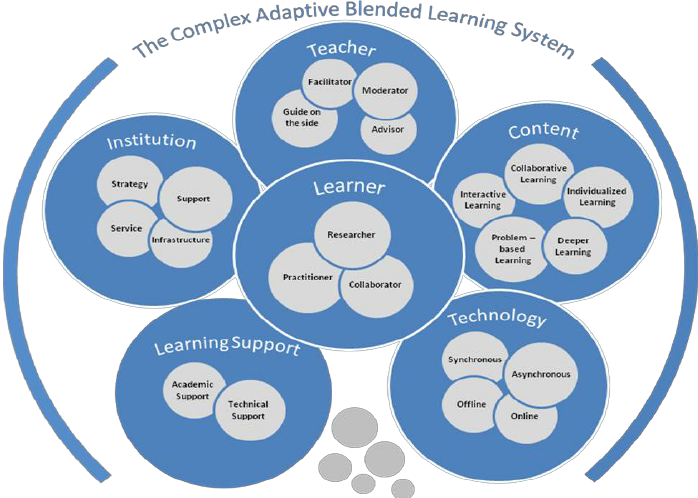


Figure 1. The CABLS Framework (Yuping Wang, Xibin Han and Juan Yang, 2014)

There are six elements in the system, all with their own sub-systems. These six elements are:

* the learner
* the teacher
* the technology
* the content
* the learning support
* the institution

**The Learner**

The new method and system, as well as the rapidly evolving educational landscape, also bring about changes in the roles and responsibilities of students. In order to adjust to this new paradigm shift, students are putting in more effort and making the most use of their time, which helps them go from being passive to active learners. This is key to the support and training of lifelong learners, a characteristic identified as important in 21st-century society.

**The Teacher**

In terms of integrated learning, teachers are also more polished, engaged, and technologically knowledgeable. Students' perceptions and responsibilities will co-evolve since they both have an impact on the other four system parts. Because of the large diversity of teachers and facilitators, blended learning has been implemented in a way that allows students to meet the needs of 21st-century teaching and learning while also making the most of their free time for self-study. From now on, these so-called "teachers" will defend themselves by identifying themselves as advisors, moderators, mentors, and facilitators, among other new and sophisticated roles.

**The Technology**

In general, technology encompasses the development and application of technical means, their interaction with life, and any apparatus or process that increases the ability of humans to do tasks. New technologies are put to the test before being either abandoned if they don't have much value or modified for new applications. Learning with technology necessitates new roles for both teachers and students as well as new methods for gaining access to and using content. Numerous studies have been conducted on the use of technology for learning in a variety of contexts and learner groups, yielding a wide range of results. To determine the uses, difficulties, and results of technology for education, considerably more investigation and testing are required. According to this theoretical framework, technology must be viewed as a component of the integrated learning system, where all components interact with one another.

**The Content**

The topic matter and substance are crucial to the learning process. Simply put, e-learning content is the information and components utilised to motivate students to understand the course in question. There are a plethora of dynamic, interactive, media-rich resources available online that provide teachers and students with access to course experience, with the medium being handled as a dynamic between the two parties. The implementation of user-friendly technology by the institutions has an impact on the selection and utilisation of information in addition to supporting learners. Students now have the chance to learn material in-depth, and this technology engages multiple learners through a variety of learning modes influenced by numerous ICT factors.

**The Learning Support**

A component of education must include assisting students in mastering the material and developing their competence. This framework incorporates learner support to highlight the development needed to become a proficient blended learner and the continuous help required when the system involves complexity. In addition to the standard help with comprehending the subject and assignments, support might also include learning how to interact successfully online, accessing materials, and troubleshooting technology. Online learning also comes with a certain degree of independence that, if mastered, is a lifetime advantage. It does, however, call for the gradual and varied scaffolding of support for learners. Learner support, according to Wang et al. (2015), is defined as "technical support aiming to help students improve their knowledge of the technological tools and the fluency with which they use the tools to complete specific learning tasks, and academic support focusing on helping learners to develop effective learning strategies, such as time management and collaborative skills" (p. 384).

**The Institution**

Blended learning requires digital janitors and technology infrastructure, just as classroom-based learning needs the buildings, desks, lighting, and other fixtures of physical institutions. If not sufficient, institutional support is an essential requirement for blended learning to be successful.

### *The Community of Inquiry Framework in Blended Learning*

A theoretical framework designed to organise the process of learning in an online or blended environment was published in 2001 by Garrison, Anderson, and Archer. Constructive conceptions of experiential learning and the writings of John Dewey serve as the foundation for the Community of Inquiry (CoI), a model of inquiry-based teaching and learning.

The components that are required to produce profound and significant learning are outlined in the CoI framework. According to the original framework, the educational experience arises from the convergence of three presences: social, teaching, and cognitive.

More than ever, inquiry-based teaching and learning is crucial as a method of instruction and as a subject for learning how to instruct.

Inquiry-based learning is viewed as a crucial chance for acquiring higher-order thinking skills in addition to content acquisition (Garrison, 2016). Inquiry-based learning does not accommodate amateur and passive learners. Inquiry-based learning therefore requires a greater emphasis on providing opportunities for meaningful participation than on directly imparting knowledge; the latter encourages and supports passive learning.

**What does the research tell us?**

The CoI framework facilitates guided inquiry by designating instructional activities and offering recommendations on blended learning methods and content that are grounded in theory and practice.

Blended learning that makes use of the CoI framework fosters possibilities for self-reflection, active cognitive processing, engagement, and peer teaching—all of which are consistent with the three original presences of the CoI framework (social presence, cognitive presence, and teaching presence). Furthermore, timely professional advice from educators promotes participation and cooperative learning, underscoring the need of developing communities of inquiry in all forms of education—in-person, online, or mixed.

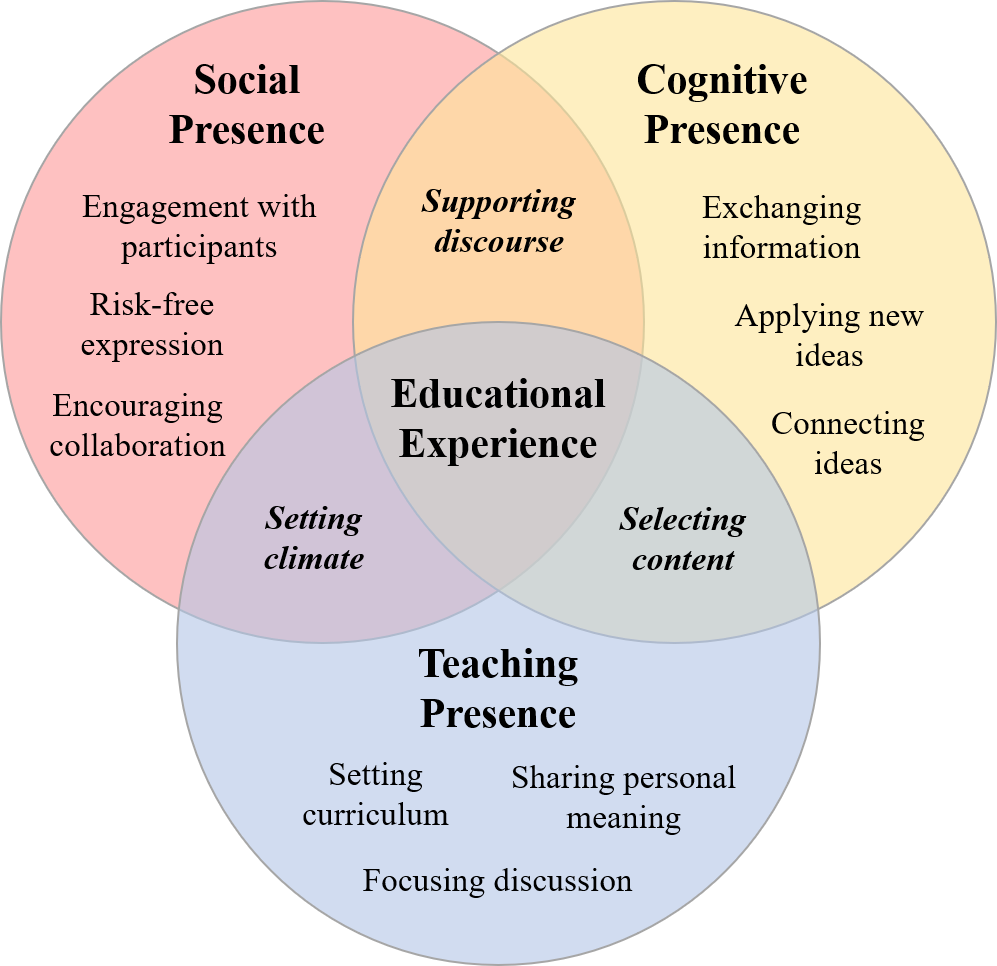


Figure 3. The Community of Inquiry Model (Garrison, Anderson and Archer, 2001)

### *SAMR Model*

[What Is the SAMR Model?](https://www.youtube.com/watch?v=9b5yvgKQdqE)

An additional blend introduces technology into the classroom. Incorporating technology into face-to-face instruction, often known as technology-enabled learning, has the potential to increase student engagement and enhance learning outcomes. The SAMR model is a method for the gradual adoption of new technology and is well-suited for K–12 education. One strategy for the SAMR model is the gradual adoption of new technology in the form of digital transformation. The SAMR model is based on a logical and reasonable approach and primarily concentrates on four key components, which are covered in more detail below.

* Substitution:

This particular type uses computer technology in place of pen and paper to fill out worksheets digitally on a computer, tablet, or smartphone. Only the mode instructions—which can be switched from manual to digital at the student's request or teacher's direction—will differ functionally.

* Augmentation:

Technology will intervene and take the place of the conventional method of administering quizzes (pen and paper). The quizzes will be hosted by a computer with the aid of various ICT tools. With the autocorrect methods, the system not only archives each student's performance history but also provides real-time feedback, adding a new layer to traditional teaching and learning. Additionally, technology has digitalized traditional classrooms, transforming them into "smart classrooms'' that use dynamic text, audio, video, and other elements to further improve student learning.

* Modification:

When digital ICT tools are integrated with traditional teaching and learning methods, students' learning shifts from being passive to active, changing the purpose of the session. Adding audio and video filters makes a basic writing assignment more engaging and dynamic. That essentially makes the entire exercise centred around a narrative and performance. Additionally, it gave facilitators and students the ability to record the entire activity and archive it for later streaming.

* Redefinition:

This model uses technology to create new teaching and learning activities. Students are using many search engines on the internet as e-resources instead of going to the library to look up books or printable materials. Numerous new ITC tools and applications are designed to finish the discussions, such as spell-checking and having a decent vocabulary. The most widely used app is Grammarly.

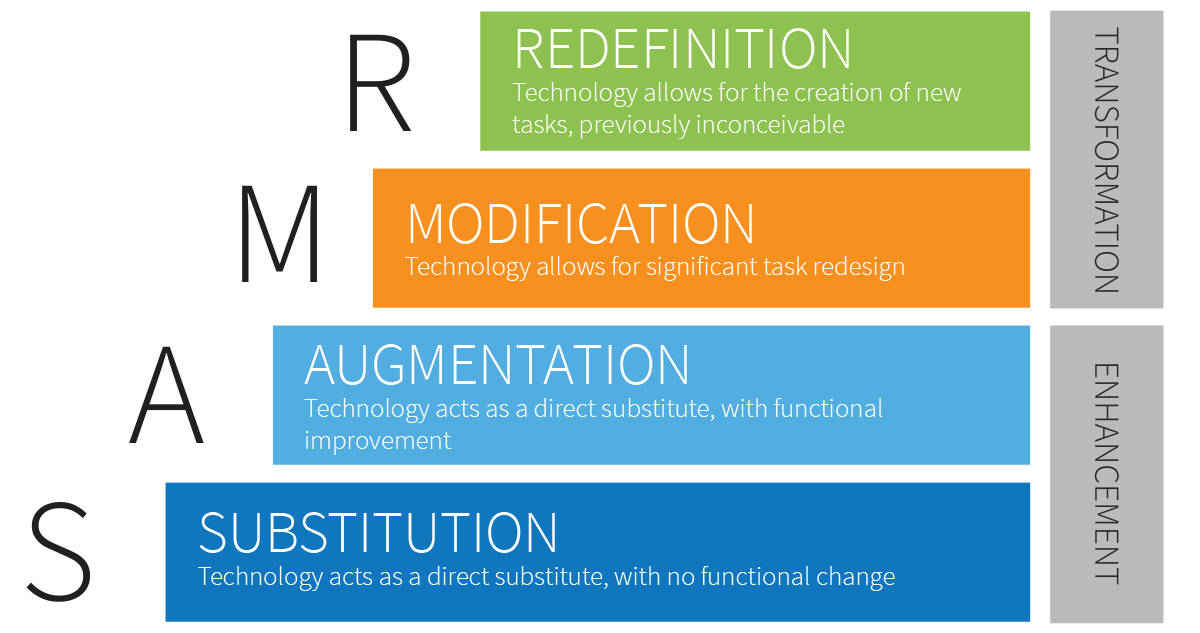


Figure 2. SAMR Model (Brubaker, 2013)

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The Community of Inquiry resource site, including an overview of the CoI framework, survey and key publications. Retrieved from <http://coi.athabascau.ca/>

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### *Additional material:*

B2Bwhiteboard: The 7 Benefits of Blended Learning (<https://www.youtube.com/watch?v=kEld3h_JTx0>)

Commonwealth of Learning: The Flipped Classroom: A Blended Learning Approach (<https://www.youtube.com/watch?v=nha62Gs6t-E>)

Common Sense Education. Introduction to the SAMR model. What is the SAMR model? (<https://www.youtube.com/watch?v=9b5yvgKQdqE>)