

## Dimensions of effective teaching

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### **Abstract**

*This article explores findings concerning effective teaching. The term 'effective teaching' has been used in this article in a broader sense rather than simply accepting teacher behavior, or what teachers are seen to do in the classroom. It summarizes the vast literature related to effective teaching. This review summarizes effective teaching into five dimensions: supportive learning environment, academic expectations, scaffolding learning, clarity and adoption; and integration of Information and Communication Technology (ICT) in the teaching-learning process.*

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**Keywords:** Effective teaching, school education, higher education, scaffolding learning, academic expectation

### **Introduction**

A sound education plays a vital role in the economic development of a nation (Bala & Rani, 2017). Nowadays, almost all countries have given priority to the education sector in their annual plan and policies. Teaching is a profession with the immense responsibility of imparting knowledge and shaping young minds, is at the heart of the education.

Education and teaching are like two faces of a same coin (Ahmod & Zhang, 2021).

Without teacher's sincere efforts to effective teaching, the outcomes of educational plan are far from the ideal. Thus, more attention is given to the quality of teaching in education in the recent years.

Teaching is regarded as strategy of providing a great deal of opportunities for students to learn with an interactive process as well as an intentional activity. However in teaching, students may not always learn what teacher intends and they may, sometimes also learn notions which teacher did not intend them to learn (Brown & Atkins, 1988). In such a condition, effective instructional strategies and teaching with technology can be panacea.

All the teachers must evaluate their teaching from the side of students to meet the needs of all learners in their classrooms. Teachers are to identify the most successful tactics for their instructional designs by a number of school phenomena, including student development, community changes, and administration changes (Ghafar & Sawalmeh, 2023).

Effective teaching is generally understood as the ability to facilitate learning in a way that maximizes student outcomes—whether in terms of academic achievement, personal growth, or skill acquisition. However, defining and operationalizing "effective teaching" remains a complex and debated topic. Numerous studies have attempted to identify the characteristics, behaviors, or dimensions of teaching that contribute to this effectiveness. Yet, these studies often offer conflicting conclusions. The primary rationales for conducting this analysis are synthesizing the results of multiple studies to draw more generalizable conclusions and attempt on answering the dimensions of effective teaching.

### **Literature review**

A study of extant literature on effectiveness in teaching in both schools and higher education reveals that defining effectiveness is inherently controversial. Evans and Abbott (1998) maintained that there is no consensus about what characterizes effective teaching. Throughout history, there have been several theories propagated by different scholars across the globe which assisted teachers in becoming effective and innovative in their teaching careers. John Dewey is considered as a pioneer scholar who played a bigger role in the education sector (Gutek, 2014). He believed that students are all unique learners, and the teachers should give them the golden opportunity and provide the environment through which they exercise their potential. It is therefore the responsibility of the teacher to have a positive and constructive environment so that students create a positive educative experience for themselves. For effective teaching to occur within an educational setting, Dewey (1938) stressed the sensitivity of the relevant teachers towards learners' needs and their individual differences. Dewey stressed that teachers should be aware that there is nothing like a one-for-all concept of teaching and learning. The process of learning should be decided in accordance with the aptitude, learners' former experiences, and their present experiences. Teachers should identify students' interests,

observe the directions they naturally take, and then assist them to develop problem-solving skills.

Generally speaking, effective teaching is systematic, stimulating, and caring (McKeachie and Kulik 1975; P. A.Cohen 1981; Marsh 1982). Obviously, the emphasis on these factors varies between lecturers and subjects and each of these factors is complex and, in practice, challenging.

Centra (1993), defines effective teaching as “that which produces beneficial and purposeful student learning through the use of appropriate procedures”.

Braskamp and Ory (1994) include teaching and learning in their definition, defining effective teaching as the “creation of situations in which appropriate learning occurs, shaping those situations is what successful teachers have learned to do effectively”.

#### **Characteristics of effective teachers:**

- Effective teachers are clear about instructional goals.
- Are knowledgeable about curriculum content and the strategies for teaching it.
- Communicate to their students what is expected of them and why.
- Make expert use of existing instructional material in order to devote more time to practices that enrich and clarify the content.
- Motivate students and nurture their desire to learn in a safe, healthy and supportive environment which develops compassion and mutual respect.
- Are knowledgeable about their students, adapting instruction to their needs and anticipating misconceptions in their existing knowledge.
- Cultivate cross cultural understanding and value of diversity.
- Monitor student understanding by offering regular appropriate feedback.
- Provide students equitable access to technology, space, tools and time.
- Use multiple methods to systematically gather data about student understanding and ability.
- Provide meaningful learning opportunities for students.
- Scaffold instruction to help students reason and develop problem solving strategies.
- Integrate their instruction with other subject areas.
- Use techniques that best serve the learning needs of their students.

Young and Shaw (1999) propose six major dimensions of effective teaching: value of the subject, motivating students; a comfortable learning atmosphere; organization of the subject; effective communication; and concern for student learning.

Hativa, Barak and Simhi (2001) propose four dimensions of teaching effectiveness interest, clarity, organization and a positive classroom climate.

As Campbell et al (2004) point out, most studies in teacher effectiveness take achievement against standardized tests as the benchmark for an outcome measure, with the implication that these tests stand “as a proxy for other kinds of learning” (p. 457). In a contemporary context, these other kinds of learning may be defined as:

- becoming an independent learner,
- developing meta-cognitive skills,
- solving problems,
- acting on feedback,
- assessing one’s strengths and weaknesses,
- acquiring generic study skills, e.g. communicating effectively, making effective use of technology to promote one’s own learning,
- working effectively with others and,
- efficient time-management (Allan & Clarke, 2007).

In 2010, the Washington State Legislature passed E2SSB 6696, a broad education reform bill that included a teacher evaluation model. Teacher Evaluation Model (TEM) is a comprehensive framework designed to assess and support the effectiveness of teachers in the state. It is grounded in the principle that effective teaching practices are integral to student learning and achievement. The Washington State Teacher Evaluation Model has following eight criteria:

- Criterion 1: Centering instruction on high expectations for student achievement.
- Criterion 2: Instruction: Demonstrating effective teaching practices.
- Criterion 3: Differentiation: Recognizing individual students’ learning needs and develop address those needs.
- Criterion 4: Content knowledge: Providing clear and intentional focus on subject matter, content and curriculum.

- Criterion 5: Fostering and managing a safe, positive learning environment
- Criterion 6: Assessment: Using multiple student data elements to modify instruction and improve student learning.
- Criterion 7: Communicating and collaborating with parents and school community.
- Criterion 8: Professional practice: Exhibiting collaborative and collegial practices focused on improving instructional practice and student learning.

According to Hattie (2012) there are five highly effective teaching practices that have the greatest impact on student learning, which are teacher clarity, classroom discussion, feedback, formative assessment, and the teaching of metacognitive strategies. Hattie defines these five teaching practices as follows:

**Teacher clarity:** When beginning a new unit of study or project with students, the teacher clarifies its purpose and learning goals and provides explicit criteria on how students can be successful. In addition, the teacher presents models or examples so the students can see what the end product looks like.

**Classroom discussion:** The teacher frequently steps “of stage” to facilitate whole-group discussions that allow students to learn from each other. By observing these whole-group discussions, the teacher can also formatively assess how well students are grasping new content and concepts.

**Feedback:** The teacher provides ongoing, consistent feedback, which allows students to gauge their relationship to what they are learning. Without feedback, both written and verbal, individual students cannot monitor their own progress. By sharing feedback with the entire class, the teacher can point out patterns in the students’ collective understanding while also observing further areas of need. Similarly, students can share feedback about their perceptions of their own growth and areas of need so the teacher can make incremental adjustments to the learning process, materials, and instructional practice.

**Formative assessment:** To provide students with effective and accurate feedback, teachers must assess their learning frequently and routinely, determining specifically where students are in relation to the unit of study’s learning goals or end product (summative assessment). Hattie found optimal value when teachers spent equal amounts of time on formative evaluation and summative assessment.

Metacognitive strategies: The teacher provides students with how to plan and organize themselves, how to monitor and direct their own work, and how to engage in self-reflection through the learning process. When teachers provide students with time and space to be aware of their own knowledge and their own thinking, student ownership in the learning outcomes increases.

As the world is undergoing rapid changes, there have been several research contributions and innovations in the field of education, especially in regard to effective teaching practices. Similarly, the advent of technology has brought significant transformations across the globe. As in different sectors of the countries, the education sector has also experienced a tremendous pedagogical paradigm shift due to the adoption and integration of Information and Communication Technology (ICT) in the teaching-learning process. As such, to be an effective teacher in this modern age, there must be competency in the operation of ICT-based tools so that teaching and learning can happen with ease.

(Harbour et al, 2015) Jan & Jrf (2017) conducted research on the qualities of effective teachers. They reported that effective teachers adopt learner-centered approaches in the classroom, learn new technologies and integrate them into the teaching process and use collaborative learning strategies.

Mokhets & Pallai (2022) pointed that highly effective teachers in the 21st century have; the ability to integrate technology in the teaching-learning process, incorporation of a learner centered approach, acknowledgement of individual differences and creation of a positive learning environment.

Similar argument was raised by Kurata, Mokhets'engoane, & Selialia (2022) that in the 21st century, learners must be given the opportunity to discover new ideas for themselves. For that reason, if students are deprived of the opportunity to engage and participate in their own learning, then it is arduous for them to understand and become interested in the teaching – learning process. As such, teachers are encouraged to acquaint themselves with new skills to meet the needs and interests of the 21<sup>st</sup> century learners.

There is much debate within the higher education community on how teaching or teaching effectiveness may be defined (Braskamp, and Ory; 1994). For instance, Centra (1993), defines effective teaching as “that which produces beneficial and purposeful

student learning through the use of appropriate procedures” (p. 42). Braskamp and Ory, (1994, p. 40) include both teaching and learning in their definition, defining effective teaching as the “creation of situations in which appropriate learning occurs; shaping those situations is what successful teachers have learned to do effectively.”

Although Patrick and Smart (1998) claim that there appears to be little agreement on the nature and number of dimensions that represent teaching effectiveness. Over the past 30 years, a remarkable portrait of an effective teacher from teachers’ perspectives has emerged from a range of research studies. The summary of these dimensions is based on the work of Marsh, 1987; Swartz et al, 1990; Entwistle & Tait 1998; Ramsden, 1991.

### **1. A supportive learning environment**

A supportive learning environment is one where students feel safe, valued, and engaged, respect is seen between students and teachers and among students in their educational journey. Such environment fosters collaboration, creativity, and critical thinking, ultimately enhancing the learning experience. Here are some key components that contribute to a supportive learning environment:

#### **a. Emotional safety**

**Trust and respect:** Students should feel respected by their peers and educators.

Building trust allows for open communication and encourages students to express themselves without fear of ridicule.

**Encouragement:** Positive reinforcement and constructive feedback help students develop confidence in their abilities.

#### **b. Inclusive practices**

**Diversity and equity:** Recognizing and valuing diverse backgrounds, experiences, and perspectives is essential. This includes adapting teaching methods to meet varied learning styles and needs.

**Accessibility:** Ensuring that all students have equal access to resources, materials, and opportunities for participation.

#### **c. Engaging curriculum**

**Relevance:** Connecting learning material to students' lives and interests makes education more meaningful.

Active learning: Incorporating hands-on activities, group projects, and discussions encourages participation and deeper understanding.

d. Collaborative learning

Group work: Encouraging collaboration among students fosters teamwork skills and allows them to learn from one another.

Peer support: Establishing a culture where students help and support each other can enhance social skills and build a sense of community.

e. Effective communication

Open dialogue: Regular communication between students and educators promotes feedback and discussion of ideas, challenges, and successes.

Active listening: Encouraging active listening among students and teachers helps to validate each person's contributions.

f. Development of life skills

Critical thinking: Teaching students how to analyze and solve problems prepares them for real-world challenges.

Social-emotional learning (SEL): Integrating SEL helps students manage emotions, set goals, show empathy, and make responsible decisions.

g. Consistent support

Mentorship: Providing mentorship opportunities can guide students and offer additional support as they navigate their educational paths.

Resources: Access to counseling, tutoring, and extracurricular activities can enhance student well-being and academic success.

h. Positive classroom environment

Physical space: A well-organized and inviting classroom can make a significant difference in how students feel about learning.

Classroom management: Implementing clear expectations and routines helps create a structured environment conducive to learning.

Creating a supportive learning environment requires continuous effort and commitment from educators, students, and the broader educational institutions community. By prioritizing emotional safety, inclusivity, engagement, and



collaboration, educational institutions can foster a space where all students can thrive and reach their full potential.

## **2. Academic Expectations**

Academic expectations refer to the standards and benchmarks that students, educators, and institutions set for learning, performance, and behavior in an educational context. Here are some key components of academic expectations:

- a. **Academic performance:** Students are typically expected to achieve a certain level of proficiency in their subjects. This might include maintaining a specific GPA, completing assignments on time, and preparing for exams.
- b. **Attendance and participation:** Regular attendance and active participation in classes, discussions, and group activities are often expected. This promotes engagement and supports collaborative learning.
- c. **Critical thinking and problem solving:** Students are encouraged to develop critical thinking skills, analyze information, and solve problems creatively and effectively.
- d. **Respect and integrity:** Academic environments generally promote respect for peers, educators, and the learning process. Academic integrity, including honesty in submitting work and avoiding plagiarism, is a cornerstone of academic expectations.
- e. **Collaboration and communication:** Group work and effective communication are often emphasized. Students are expected to collaborate with their peers, share ideas, and contribute to group objectives.
- f. **Self-directed learning:** Students are encouraged to take initiative in their learning, seek out resources, and manage their time effectively to balance academic and personal responsibilities.
- g. **Feedback and improvement:** Students should be open to receiving feedback from instructors and peers and be willing to use that feedback to improve their skills and understanding.
- h. **Preparation for future endeavors:** Academic expectations often include preparing students for further education or careers, equipping them with the knowledge and skills necessary to succeed in their future pursuits.

- i. **Diversity and inclusion:** Educational institutions may emphasize the importance of understanding and respecting diverse perspectives and backgrounds, fostering an inclusive environment.
- j. **Lifelong learning:** There is an expectation that students will develop a love for learning that extends beyond formal education, encouraging them to pursue knowledge and skills throughout their lives.

These expectations vary by educational level (elementary, secondary, higher education) and institution, but they collectively aim to create a productive and meaningful learning environment.

### **3. Scaffolding learning**

Scaffolding learning is an instructional technique that involves providing temporary support to students as they develop new skills or concepts. It helps students to fill the gap between what they know and what they need to know. The idea is to break down complex tasks into manageable parts, allowing learners to build on their existing knowledge and gradually gain independence in their learning process. This approach is rooted in constructivist theories of education, particularly those of Lev Vygotsky, who emphasized the importance of social interaction and guided learning. Here are some key components that contribute to a scaffolding learning:

- a. **Supportive environment:** Create a safe and supportive atmosphere where students feel comfortable taking risks and making mistakes.
- b. **Gradual Release of responsibility:** Start with high levels of support and gradually reduce it as learners become more confident and capable. This can follow a model like "I do, we do, you do," where the teacher models a task, then guides the students as they practice together, and finally allows them to work independently.
- c. **Chunking information:** Break down complex information or tasks into smaller, more manageable parts. This makes it easier for students to process and understand the material.
- d. **Use of tools and resources:** Provide access to tools, resources, and technologies that can aid in the learning process. This might include graphic organizers, educational software, or collaborative platforms.

- e. **Interactive learning:** Encourage collaboration and discussion among students. Working together can help them articulate their understanding and learn from each other.
- f. **Feedback and assessment:** Provide ongoing feedback to help students understand their progress and areas for improvement. Formative assessments can help gauge student understanding and inform instructional adjustments.
- g. **Metacognitive strategies:** Teach students to reflect on their own learning processes. Help them develop strategies for planning, monitoring, and evaluating their own understanding and performance.

#### **4. Clarity**

Clarity refers to the quality of being clear, easily understood, and free from ambiguity in instructional practice. It can apply to various contexts. Here are some key components that contribute to clarity:

- a. **Communication:** Clear communication involves expressing thoughts and ideas in a way that the audience can easily comprehend. This includes using simple language, structured arguments, and avoiding jargon.
- b. **Clarity of examples**  
Provide opportunities for practice and feedback, and gradually release instructional support. Include illustrative examples and non-examples to contrast
- c. **Visuals:** In design, clarity means that visual elements are presented in a way that is easy to interpret. This includes the use of appropriate colors, fonts, and layouts that guide the viewer's understanding.
- d. **Goals and objectives:** Clarity in goals involves having well-defined, specific, and measurable objectives that provide direction and focus.
- e. **Clarity of assessment:** Regularly assess student work and receive feedback to adjust teaching strategies and ensure students are on track.
- f. **Thought processes:** Clarity in thinking involves organizing thoughts logically, leading to well-reasoned conclusions and decisions.
- g. **Emotional clarity:** This refers to the ability to understand and articulate one's feelings, which can lead to better decision-making and interpersonal relationships.

Improving clarity in any area often involves simplifying complex ideas, being concise, and ensuring that the intended message is conveyed effectively.

### **3. Statement of the Problem**

Effective teaching is widely recognized as a critical factor in enhancing student learning outcomes, but its nature is multifaceted and complex, encompassing various dimensions such as instructional strategies, teacher-student interactions, classroom management, and assessment methods. Despite the substantial body of research on teaching effectiveness, there is a lack of consensus on the key dimensions that constitute effective teaching and how these dimensions interact to produce optimal educational results. Moreover, existing studies often focus on isolated aspects of teaching or are limited to specific educational contexts, making it challenging to develop a comprehensive understanding of what makes teaching truly effective across diverse settings and disciplines. This meta-analysis seeks to answer these gaps by synthesizing the findings from multiple studies on “What are the most commonly identified dimensions of effective teaching?”

### **4. Objectives of the study**

Objectives of the present study are as follows:

- To synthesize the findings from multiple studies on the dimensions of effective teaching.
- To find out the key dimensions of effective teaching.
- To generate evidence-based insights that can inform best practices in teaching.

### **5. Methods**

This study offered a way to broaden the search, examining all available studies at once, and reviewed these articles to synthesize the findings from multiple studies on the dimensions of effective teaching, defines the key dimensions of effective teaching and generates evidence-based insights that can inform best practices in teaching

### **6. Discussion and findings**

This study has synthesized data from multiple empirical studies examining the dimensions of effective teaching across various educational settings. In total 26 articles and books of studies were included in the final analysis, covering diverse

contexts from school to higher education. The findings revealed regarding the dimensions of effective teaching are as following

**1. A supportive learning environment**

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Accessibility: Ensuring that all students have equal access to resources, materials, and opportunities for participation.

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**Resources:** Access to counseling, tutoring, and extracurricular activities can enhance student well-being and academic success.

h. **Positive classroom environment**

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**Classroom management:** Implementing clear expectations and routines helps create a structured environment conducive to learning.

Creating a supportive learning environment requires continuous effort and commitment from educators, students, and the broader educational institutions community. By prioritizing emotional safety, inclusivity, engagement, and collaboration, educational institutions can foster a space where all students can thrive and reach their full potential.

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- f. **Thought processes:** Clarity in thinking involves organizing thoughts logically, leading to well-reasoned conclusions and decisions.
- g. **Emotional clarity:** This refers to the ability to understand and articulate one's feelings, which can lead to better decision-making and interpersonal relationships. Improving clarity in any area often involves simplifying complex ideas, being concise, and ensuring that the intended message is conveyed effectively.

#### **5. Adoption and integration of Information and Communication Technology (ICT) in teaching-learning process**

The adoption and integration of Information and Communication Technology (ICT) in teaching-learning process is a transformative approach that reshapes education by

leveraging digital tools to enhance the effectiveness and accessibility of learning. The integration of ICT offers a range of benefits that positively impact both teachers and learners:

**a. Enhanced Learning Experiences**

**Interactive Learning:** ICT enables interactive, engaging content through videos, simulations, animations, and gamified learning experiences.

**Personalized Learning:** Technology can adapt to individual learning paces, providing personalized pathways for students through educational software.

**Access to Global Resources:** Students have access to a vast amount of information, resources, and research through the internet, broadening their knowledge base.

**b. Improved Collaboration and Communication**

**Collaboration Tools:** Tools like Google Docs, shared drives, and forums facilitate collaborative projects and peer-to-peer learning.

**Global Connectivity:** ICT allows students and teachers to connect with peers, experts, and educational institutions worldwide, fostering global collaboration and exchange of ideas.

**c. Increased Engagement**

**Student engagement:** Interactive whiteboards, quizzes, and multimedia presentations capture students' attention, making learning more dynamic and engaging.

**Gamification:** Many educational apps incorporate gaming elements to motivate students and improve retention.

**d. Efficient Administration**

ICT streamlines administrative tasks such as grading, scheduling, attendance tracking, and communication between teachers, students, and parents.

**Conclusion**

On the basis of above literature, it can be concluded that concept of effective teaching is inherently controversial and not wholly consistent. Generally speaking, effective teaching is systematic, stimulating, and caring. Although there is little agreement on five broad

dimensions that represent effective teaching, these broad dimensions include supportive learning environment, academic expectation, scaffolding learning, clarity and adoption and integration of Information and Communication Technology (ICT) in the teaching-learning process. The first is supportive learning environment, a concept which embraces provision of intellectual excitement, enthusiasm and a stimulating & creative environment, high degree of subject knowledge in teacher, respect for, and interest in, students, climate of approachability, provision of a motivating environment, and recognition of student diversity. The second dimension is academic expectations. This concept embraces high level of expected output, expected outcomes expressed directly in academic terms— explaining to students what they are to learn and why, clarity in standards and assessment criteria, appropriate workload and level of difficulty, development of critical thought. The third dimension is scaffolding learning. This concept embraces varied ways to teach content, anticipation of misconceptions in students' existing knowledge, appropriate pace for the group being taught, high level of engagement, excellent management of student behavior, systematic, well organized and well-structured sessions, students work collaboratively with both their peers and their teachers, effective and timely feedback, encouragement of independent learning, encouragement of active learning, effective & sympathetic guidance. The fourth dimension is clarity. It means teachers must have strong, unambiguous presentation skills high quality explanation and fifth dimension is adaptation and integration of ICT in teaching learning process.

*[The article was reviewed by Dr. Chandra Prasad Luitel, Freelance Researcher]*

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