**Pedagogy**

* **Pedagogy can be defined as the art of teaching.**
* **Pedagogy involves being able to convey knowledge and skills in ways that students can understand, remember and apply.**

Pedagogy is the discipline that deals with the theory and practice of [education](https://en.wikipedia.org/wiki/Education); it thus concerns the study and practice of how best to teach. Its aims range from the general (full development of the human being via [liberal education](https://en.wikipedia.org/wiki/Liberal_education)) to the narrower specifics of [vocational education](https://en.wikipedia.org/wiki/Vocational_education) (the imparting and acquisition of specific skills).

**Watkins and Mortimer (1999**) define it as **‘any conscious activity by one person designed to enhance the learning of another’**. Alexander (2003) defined “Pedagogy is the act of teaching together with its attendant discourse. It is what one needs to know, and the skills one needs to command in order to make and justify the many different kinds of decisions of which teaching is constituted. Leach and Moon (1999) expand further on what may define pedagogy by describing a Pedagogical Setting as ‘the practice that a teacher, together with a particular group of learners creates, enacts and experiences.

**Mathematical pedagogy** explicitly emphasizes not only the substance of mathematics but also its nature and epistemology which assume that students must be actively involved in constructing their own understanding, in discovering and inventing mathematics.

**Pedagogical knowledge**

Shulman (1987) regards general pedagogical knowledge as the broad principles and strategies of classroom management and organisation that appear to transcend subject matter.

Pedagogical Knowledge is deep knowledge about the processes and practices or methods of teaching and learning and how it encompasses (among other things) overall educational purposes, values and aims. This is a generic form of knowledge that is involved in all issues of student learning, classroom management, lesson plan development and implementation, and student evaluation. It includes knowledge about techniques or methods to be used in the classroom; the nature of the target audience; and strategies for evaluating student understanding. A teacher with deep pedagogical knowledge understands how students construct knowledge and acquire skills; develop habits of mind and positive dispositions towards learning.

As such, pedagogical knowledge requires an understanding of cognitive, social and developmental theories of learning and how they apply to students in their classroom.

**Pedagogical Content Knowledge (PCK)**

Shulman defines pedagogical content knowledge as the knowledge of how to teach within a particular subject area. It enables teachers to ease the learning for students through use of clear explanations, appropriate analogies and presenting learning in interesting, motivating and even entertaining ways.

Pedagogical content knowledge identifies the distinctive bodies of knowledge for teaching. It represents the blending of content and pedagogy into an understanding of how particular topics, problems or issues are organised, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction. (Shulman, 1987)

**Pedagogical competence**

“Pedagogical competence can be described as the ability and the will to regularly apply the attitude, knowledge and skills that promote the learning of the teacher’s students. This shall take place in accordance with the goals that are being aimed at and the existing framework and presupposes continuous development of the teacher’s own competence and course design.”(Giertz, 2003)

“Pedagogical competence implies that the teacher from definite goals and frameworks, through continuous development of teaching and personal professional development, supports and facilitates the learning of the students in the best way. This pedagogical competence also reflects the teacher’s competence in regard to collaboration, comprehensive view and contribution to the development of pedagogy for higher education.” (Ryegård, 2008)

A description of pedagogical competence…

1. shall be based on that which supports the students’ learning.
2. shall include the teacher’s ability to develop with the support of theory and to make public their practice - Scholarship of Teaching and Learning.
3. shall make it possible to describe a threshold value (a lowest level) and a progression of pedagogical competence.
4. **Teaching Plan Competency**.

Efforts made to empower teacher competency in this area were done by directing and enabling teachers to have the ability of

(1) describing objectives,

(2) selecting materials,

(3) organizing materials,

(4) determining learning methods and strategies,

(5) determining learning sources, media, and tools,

(6) designing assessment and evaluation tools,

(7) determining assessment and evaluation technique, and

(8) allocating time.

**B . Learning and Teaching Process Competency**

Improved Learning and Teaching Process Competency were

(1) opening lesson

(2) delivering materials

(3) using media and method

(4) using teaching media

(5) using communicative language

(6) motivating students

(7) organizing activities

(8) interacting with students communicatively

(9) concluding lessons

(10) providing feedback

(11) conducting assessment and evaluation

(12)using time effectively

**C. Learning and Teaching Assessment and Evaluation Competency**

The teacher empowerment in terms of this competency turned out to directed to the ability of:

(1) choosing questions based on the level of difficulty

(2) selecting questions based on the level of differentiation,

(3) repairing the problem is not valid,

(4 )checking the answer,

(5) classifying the results of the assessment,

(6) processing and analyzing. assessment results,

(7) making interpretation of the trend assessment results,

(8) determining the correlation problem based on the assessment results,

(9) assessing to identify the level of variation in the results,

(10) infering from the results of the assessment clearly and logically,

(11) arranging follow-up program assessment results,

(12) classifying students,

(13)identifying the need for follow-up assessment results,

(14 ) carrying out follow-up,

(15) evaluating the results of follow up,and

(16) analyzing the results of evaluation.

**Pedagogical Skills**

Pedagogical Skills can be generally divided into content related skills, Classroom management skills and promoting culturally inclusive classroom environment

Significance of pedagogical skills

* Any good teacher knows that a class full of out-of-control students is unlikely to learn much.
* A teacher's first major task, then, is to learn to manage behaviour in his or her classroom.
* This set of pedagogical skills involves establishing clear rules and expectations, because students who do not know what is expected of them are more likely to misbehave.
* Establishing expectations upfront keeps many problems from arising.
* When behavioral problems do arise in the classroom, however, a skilled teacher is able to handle them with a minimum amount of disruption to the learning environment.
* Major area of pedagogical skills is that of teaching content effectively.
* These skills vary with the subject matter and level of instruction, as those skills needed to teach kindergarteners to read are significantly different from those needed to teach secondary students to build sets for a theater production.
* Regardless of the content, however, a good teacher will present information in ways that actively engage the students in the material that they are learning.
* Good pedagogy involves not only imparting information, but also providing opportunities to apply that information.
* A teacher must also be able to tailor content to the needs of his or her students.
* In any given classroom, no two students will have exactly the same knowledge or skills about the subject matter.
* A skilled teacher will be able to anticipate and respond to individual students' learning needs and challenges.
* He or she will also present tasks that are appropriate to the students' level of cognitive development.
* These two types of pedagogical skills work together to create a good learning environment.
* Engaging and appropriate teaching methods help to reduce behavioral problems in the classroom.
* Students who are actively learning are less likely to be disruptive.
* If the material is too easy or not presented in interesting enough ways, students are likely to get bored.
* On the other hand, material that is too difficult may cause students to become frustrated.

**Pedagogical Skills for Classroom Management**

Having good pedagogical skills is essential for classroom and behaviour management.

 The pedagogical skills essential for classroom management are as follows:

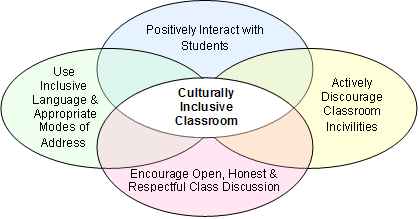
* Knowing your subject.
* Being able to reflect on your teaching practices and identify what works and what doesn’t.
* Acknowledging methods that do not work is key to classroom management.
* Knowing your students – not just academically, we need to know what makes our students tick; what their interests are, their personality and their learning styles.
* Being transparent – students should be well aware of your expectations. In a constructivist learning environment, students should be active participant in building and adhering to the culture go the classroom.
* Teachers need to be consistent and equitable in their negotiation of expectations and consequences for inappropriate behaviour.
* Being able to provide stability and structure in both the academic and cultural aspects of your classroom.
* Being able to create a learning environment that it challenging, open, engaging and rich which enables students to meet their targeted learning outcomes as well as being interested and motivated.

**Creating a Culturally Inclusive Classroom Environment**

**A culturally inclusive classroom is one where students and staff alike recognise, appreciate and capitalise on diversity so as to enrich the overall learning experience.**

**Fostering a culturally inclusive learning environment encourages all individuals – regardless of age, gender, ethnicity, religious affiliation, socioeconomic status, sexual orientation or political beliefs – to develop personal contacts and effective intercultural skills.**

Some useful strategies for establishing a classroom environment characterized by cultural inclusivity, mutual respect, and genuine appreciation of diversity are listed below:



**Engage in Positive Interactions with Students**

* Establish an introduction system or “meet-and-greet” process that enables students and staff to gain information about the cultural backgrounds of others, and the diversity of experience in the classroom (e.g., ice-breaker activities in the first week of semester).
* For example, consider a “name activity’ that encourages students to talk about the origins of their name, how they came to be given it, or what it means. This can help to encourage interaction between students, as well as opening up discussion about diversity.
* It is important to celebrate similarities, as well as discovering differences between students.
* Promote computer and information technologies as an easily accessible method of student-lecturer interaction, particularly electronic bulletin boards, course mailing lists, and other online mediums.
* At the start of each semester, provide students with some information about your teaching style and instructional methods, perhaps on lecture slides or on your own website. Include details of your cultural background and any cross-cultural teaching, learning or research experiences you have had.
* Communicate to your students that you are committed to understanding cultural differences and understanding your own assumptions, values and beliefs associated with diversity. This sends a message to students that culture is valued and respected in the classroom.
* Provide opportunities for your students to interact with you informally. Before and after lecturers or tutorials is an ideal time.
* Make an effort to learn something unique about each student. While this is challenging in large tutorials, exercises such as the “name activity” mentioned earlier can help in this regard.
* Display positive nonverbal behaviours (e.g., inviting facial expressions, eye contact, posture, hand gestures, physical distance) to ensure you appear approachable to students.

**Use Appropriate Modes of Address**

* During one-on-one interactions, ask what name or form of address students prefer.
* During class discussions, refer to students by name as much as possible.
* Correct pronunciation of names is very important, as it demonstrates cultural awareness and respect. Remember – if you are in doubt, check with students.
* Use inclusive language that avoids ethnocentric tones (e.g., “family name” rather than “last name”, and “given” name)

**Eliminate Classroom Incivilities**

* Establish explicit ground-rules for appropriate classroom conduct to protect against cultural exclusion and insensitivity.
* Communicate, verbally and non-verbally, high expectations for displaying mutual respect toward all students
* Encourage students to negotiate an accepted “code of conduct” and set of disciplinary measures for inappropriate classroom behaviour
* Respond promptly to any behaviour (verbal or non-verbal) that could be considered prejudiced, biased or discriminatory in nature. Do not tolerate racist, sexists or culturally insensitive comments made by students
* Avoid ignoring or neglecting the needs of individual students. For example, ensure you do not have a tendency to favour one group over another when answering questions.
* Avoid stereotypes and preconceived assumptions in your teaching practices and course content.
* When presenting information on cultural and linguistic diverse individuals or minority groups, clearly cite published literature and research findings, rather than expressing your personal opinion. Similarly, encourage students to draw on diverse data sources/evidence to develop their arguments and critique opinions.

**Encourage Open and Inclusive Classroom Discussion**

* Prompt students to ask questions by using open-ended statements, such as “Would anyone like to share a different opinion or perspective?”
* Avoid singling out individual students or putting anyone “on the spot”, particularly when discussing culturally or personally sensitive issues. For example, a student will feel pressured if it is assumed they can speak on behalf of all people from their country or culture of origin.
* Promote turn-taking when discussing controversial issues. For example, ensure students take turns expressing their own opinions while also listening to (and genuinely considering) the views of others.
* Ask students how they prefer to learn, and, where possible, examine how you might adapt your teaching and learning activities accordingly.
* For example, inviting students to write a “self-reflective essay” to explain their learning style; completing a learning style inventory assessment, or providing an online forum to openly discuss how they like to learn are ideal methods to explore learning styles.

**Self-Development Checklist**

* To create a culturally inclusive classroom environment, it is helpful if teaching staff reflect on their own attitudes, assumptions and instructional practices.
* To what extent do these attitudes, assumptions and practices promote an inclusive learning environment?