**Teaching & Learning Strategies and Reflective Practices**

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| **Course Title**: Teaching & Learning Process | **Course Code:** |
| **Program:** BS-Special Education | **Batch** |

**Capsule Statement / Course Description**

This course has been designed for the BS-Education Program. This course includes the mechanism of instructional process in the class-room situation. The influence of the personality of the teacher has been highlighted. The purpose of the course is teacher training and to make the teaching learning in educational institutions effective and sound. Various aspects of effective teaching learning are discussed to enable prospective teachers to use different teaching strategies successfully.

This course has been designed for MA (Education) level students and includes the mechanism of instructional process. In present era there has been a growing pressure on teachers to ‘prove’, ‘show’ and ‘certify’ that their students understand what they are teaching. Teachers are expected to use warm-up activities, promote activity based teaching and collaborative learning among students. Moreover, teachers are expected to reflect on their practices to change the weaknesses into strengths. Similarly, there has been a growing concern to promote creativity and productivity among students. It seems there is major shift from teaching to reflective teaching and performance based teaching. Teachers are expected to prepare learners for instructions by using various learning strategies. The major purpose of the course is to prepare student teachers to select suitable, sound and effective teaching strategies in the classroom. Various aspects of effective teaching methods are discussed in the course to enable the prospective teachers to make the teaching more successful. This course also highlighted various students centered and teachers centered teaching methods. The course also shed light on techniques and strategies of reflective practices. Hopefully, this course will help out prospective teachers to adopt suitable teaching method and reflect on their teaching practices.

**Course Goals/ Outcomes**

After studying this course, the student will be able to:

1. explain the concept of teaching, teaching learning strategies, and relationship among different elements;
2. examine the role of teacher in detail;
3. generate awareness of the different classroom teaching-learning strategies;
4. use various teaching learning strategies for effective classroom learning;
5. develop appropriate lesson plans according to the nature of the subject matter;
6. use various teaching aids for effective teaching learning activities; assess student learning in the class and improve his/her teaching in the light of feedback.
7. Explain the concept of teaching, teaching process and learning strategies.
8. Understand relationship among different elements of teaching.
9. Enhance their observation skills during teaching learning process.
10. Understand the role of teacher in teaching learning process.
11. Select suitable teaching-learning strategies during practical classroom settings.
12. Select appropriate teaching strategy according to the nature of the subject matter
13. Develop appropriate lesson plans according to the nature of the subject matter
14. Reflect on their own practices to identify strengths and weaknesses of their teaching method.
15. Improve their teaching in the light of student’s feedback and self reflections.
16. Apply various student centered and teacher centered teaching strategies.

**Course Contents:**

**Unit 01**: **Teaching Process**

1.1 Concept of teaching method, approaches and strategies

1.2 Process of teaching

1.3 Variables of teaching

1.4 Main features/characteristics of teaching

1.6 Operations in teaching

1.7 Determining behavioral objectives of teaching learning Process

**Concept of teaching method, approaches and strategies**

General models and families of teaching methods are guides for designing educational activities, environments and experiences. They help to specify methods of teaching and patterns for these methods. Instructional strategies, or teaching methods, depend on a number of factors such as the developmental level of students, goals, intent and objectives of the teacher, content, and environment including time, physical setting and resources. Imagine a course that challenges teachers to meet a number of objectives. A single method cannot meet all of our goals nor can a single method accommodate all learning styles at once. For example, demonstrations or projects are effective for meeting some goals but ineffective for meeting others. So we need a toolbox of methods, not merely a single tool. In the most general terms, there are four or five different models of instructional strategies or teaching methods. Having spent years in schools, you will recognize each and probably have strong preferences for one or two models.

* Didactic- Direct teaching; Verbal and typically in the form of a lecture or presentation.
* Modeling- Direct teaching; Visual and typically in the form of demonstration and practice.
* Managerial- Indirect or Interactive teaching; Facilitation, individualization and group management.
* Dialogic- Indirect Interactive teaching; Socratic Technique of dialogue, questions and thought provocations.

**The Teaching and Learning Process**

Individual students may be better suited to learning in a particular way, using distinctive modes for thinking, relating and creating. The notion of students having particular learning styles has implications for teaching strategies. Because preferred modes of input and output vary from one individual to another, it is critical that teachers use a range of teaching strategies to effectively meet the needs of individual learners. Sound health instruction should incorporate a variety of teaching methods intended to complement the learning styles of children. This should lead to young learners who are both intrinsically and extrinsically motivated to inquire, infer, and interpret; to think reflectively, critically and creatively; and in the final analysis to make use of the knowledge and skills they have gained by becoming effective decisionmakers. A number of students will require support to meet the objectives of the prescribed curriculum. This support may be in the form of changes in teaching strategies, approaches or materials and may require the support of resource and/or special education teachers. The Department’s Special Education Policy Manual provides direction in meeting the needs of students who require alternate or modified curriculum objectives. A student-centred approach which actively engages the young person in the learning process is critical if skills which result in healthy behaviours are to be fostered and developed.

Some of the learning strategies that could be incorporated in a comprehensive approach include self-directed learning, co-operative learning, role playing, behavioural rehearsal, peer education and parent involvement. Consideration should be given to allowing students to plan some learning experiences. They could be provided with opportunities to identify topics or areas for further study, contribute information relevant to an issue for study and/or make suggestions for follow-up activities. Students should also be given the opportunity for self-assessment and be encouraged to evaluate their habits, attitudes, and behaviours with respect to personal health and well-being. This can be accomplished through real-life activities or simulations in which students can become involved in a meaningful way. Activities such as recording eating habits and designing a plan for healthy eating, taking a classmate’s pulse, and analyzing advertisements for obvious and hidden messages, help young people apply their understanding of concepts to everyday situations and occurrences.

The school environment must be a supportive and non-threatening one in which both the students and the teacher are comfortable. This is critical for the child’s cognitive, physical, social and emotional growth. Within the classroom, teachers need to be sensitive to values which are promoted by family, peers, friends, religious and cultural backgrounds. Learning must be meaningful and appropriate for the child’s cultural environment. Learning experiences must be varied and an atmosphere of support must be provided.

<http://www.vtaide.com/gleanings/teaching.htm>

**Teaching as a Process**

Teaching is fundamentally a process, including planning, implementation, evaluation and revision. Planning and teaching a class are familiar ideas to most instructors. More overlooked are the steps of evaluation and revision. Without classroom assessments or some other means of receiving feedback on a regular basis, it is surprisingly easy to misunderstand whether a particular teaching method or strategy has been effective. A teacher can create an environment of mutual trust and respect by relying on students for feedback -- students can be a valuable resource for verifying whether the class pedagogy is (or isn't) working. Self-examination with feedback from your students and the instructor are key to improving your teaching.

* **Planning:**

There are many different levels of setting goals for teaching, from the scale of an entire semester (syllabus) to a single class (lesson plan). You have the overall task of helping your students learn how to think critically and to understand the basic concepts and tools of your discipline.

* **Revision**

Revising your pedagogy will help your students learn... and keep you interested. If you keep your focus on student learning, you will find a richer meaning to the typical lecture/discussion/test/grade process. Instead of an adversarial relationship, the teaching process encourages a relationship of cooperation and mutual discovery. Ernest Boyer helped redefine the notion of scholarship, in fact, by including the scholarship of teaching as a culminating activity of the research process of discovery, integration, and application of knowledge (Boyer 1990).

* Assessment

Regular assessment of your students and yourself is critical to your success as a teacher. To really understand whether you are teaching effectively and your students are learning effectively, it is crucial that you actively and regularly assess what your students have learned. If you are able to solicit meaningful feedback from your students and the professor on a regular basis (not just at the end of the semester), you can modify and improve your teaching strategies. Assessments do not need to be overly complex or involved. In fact, the more focused you are in the assessment, the more impact your changes will have.

* Implementation

The best plans are meaningless if you don't try them. Although most of the work in teaching comes in planning and preparation, many great ideas are never implemented because it was easier to just keep doing the same thing. Don't be afraid if you have and idea you want to try. If something hasn't been working right, why not change what you are doing and try something new? Unless you are willing to change and experiment, you will find it difficult to improve your teaching skills. <https://cndls.georgetown.edu/atprogram/twl/teaching-as-process/>

**Variables of teaching**

Multiple Variables within the Teaching and Learning Process Effective teaching is adaptive teaching and is at the center of effective implementation of RTI. It is changing and adapting a lesson and a unit in ways that make them fit the students. No two lessons or units will be the same as teachers use their knowledge, skills, and expertise to adapt and enhance lessons based upon what their students do and say. Therefore, it is important for teachers to think about and analyze student knowledge, interests, and needs; reflect on their own content knowledge and pedagogy; and make decisions about the multiple variables within teaching and learning so that each student learns the curriculum. These variables include: instructional arrangements (e.g., whole class to individual); instructional delivery methods (e.g., inquiry, direct instruction, etc.); resources and materials; student engagement techniques; technology; and supplemental interventions (See Exhibit 1). Teachers continuously use an instructional planning and decisionmaking process (a.k.a., action research, problem-solving) to make these important instructional decisions to meet the needs of their students. This process has the mnemonic PAIR and will be described and modeled in this resource. Through this process, teachers, sometimes in collaboration with other professionals (e.g., reading coach, interventionist, grade level team members, special education teacher, etc.), plan, teach, and assess student learning daily by incorporating multiple OPTIONS in their lessons to assure all variables and key components are included. This process has the mnemonic OPTIONS and will be described and modeled in this resource.

**Characteristic of teaching**

Common characteristics of good teaching

According to UNESCO (2004) and Scheerens (2004), the main characteristics of good teaching relate to a number of broad categories:

* Relevance: of the teaching content, in particular alignment with the curriculum.
* Sufficient learning time: this refers to the time devoted to actual teaching, as opposed to the official hours set in the curriculum.
* Structured teaching, in which learners’ engagement is stimulated, their understanding monitored, and feedback and reinforcement regularly provided.
* A conducive classroom environment with, in particular, a task-oriented climate, mutual respect between the students and teacher and among students themselves, orderliness, and safety.
* Teachers with appropriate subject matter mastery, verbal intelligence, a broad teaching repertoire, and motivation to achieve.
* What research also underlines though is that adaptability to context matters as different countries and students may need different teaching contents (both in terms of subject matter knowledge and of medium of instruction) and different levels of structure tailored to students’ profile. It is therefore important to critically assess the relevance of both current and planned objectives (in terms of the content, structure, and context of teaching and learning) to the national situation**.**

<http://www.unesco.org/new/en/education/themes/strengthening-education-systems/quality-framework/technical-notes/common-characteristics-of-good-teaching/>

**Operations/practices in teaching**

Teaching practices are the specific actions and discourse that take place within a lesson and that physically enact the approach and strategy. Taking a cue from Alexander (2001), teaching practices comprise: teacher spoken discourse (including instruction, explanation, metaphor, questioning, responding, elaboration and management talk);

visual representation (using a chalkboard, writing, diagrams, pictures, textbook, learning aids such as stones, experiments, drama) to understand or construct the new knowledge being presented or indicated to the learners; the act of setting or providing tasks for learners to cognitively engage with new content or develop physical skills, such as experimentation, reading, writing, drawing, mapping, rehearsing, problem solving, practising; a variety of social interactions, in which language is central between learners or learners and teacher such as pairs, groups, individually or whole-class; teachers’ monitoring, use of feedback, intervention, remediation and formative and summative assessment of the students or assessment by the students themselves. ‘Effective pedagogy’ As with the term ‘pedagogy’, the term ‘effective’ is contested.

The ultimate goal of any pedagogy is to develop student learning, and yet the 2005 Global Monitoring Report on quality (UNESCO, 2005) includes creative, emotional and social development as indicators of quality learning. In order to include a wide number of studies on pedagogy, the review has conceptualised ‘effective’ pedagogy as those teaching and learning activities which make some observable change in students, leading to greater engagement and understanding and/or a measureable impact on student learning. Implicit in these definitions is a starting point or baseline with which to contrast the observable change in behaviour or learning taking place as a result of a teacher’s pedagogy.

An alternative term we could have used in this review is that of ‘quality’, referring not merely to school, national or international student examinations or assessments but also to the quality of the human interaction in the classroom through appropriate pedagogy, including freedom from corporal punishment (Alexander, 2008; Barrett et al., 2007; Moreno 2005; Barrow, et al., 2007; Tikly, 2011; UNESCO, 2005). Within this latter understanding, equity of learning is seen as an essential indicator of quality (Leu and Price-Rom, 2006; Price-Rom and Sainazarov, 2010). ‘Quality’, however, can be seen as looking at the relationship between school inputs, such as quantitative surveys of textbooks and other physical school resources and student achievement, but studies focusing on these range from showing ‘significant positive associations’ (Barrett et al., 2007, p.22) to others which state that ‘there are no clear and systematic relationships between key inputs and student performance’ (Hanushek 1995, p. 232, cited in Barrett et al., 2007).

Alternatively, other studies see quality as encompassing the more complex pedagogical issue of the way resources are used in teaching and learning that affects students’ achievement (Alexander 2007; Barrett et al., 2007; Somerset, 2011). On a larger scale, education systems and international monitoring bodies, including the Global Monitoring Report (GMR), are increasingly using assessments or tests of cognitive achievement as proxies for learning outcomes and therefore quality of education. International surveys such as PIRLS, PISA and PASEC are widely used as measures of academic achievement, as well as local and national examinations. Pre-PIRLs are being increasingly used in developing countries at primary levels, and with the plans for a single reference point for measuring learning in developing countries from UNESCO’s Learning Metric Task Force after 2015 (UNESCO, 2013), such international indicators will have a far greater reach and influence within developing countries.

Alexander (2008, p.18) argues however for ‘national accounts of quality to have a distinctively national and indeed local slant’. He distinguishes indicators of quality from measures, recognising that there are non-measureable indicators that may be culturally or contextually specific but difficult to gauge by objective measurements. Bearing Alexander’s warning in mind here, ‘effective’ teachers’ pedagogic practices in this review are broadly interpreted and seen in the outcomes they engender. Measurements of enhanced student cognition are key, but other indicators are included, such as changes in student confidence, participation or values, and social indicators such as teacher-student interaction and inclusion. Secondary outcomes of successful learning as a result of effective teacher pedagogic practice may be higher student attendance, use of resources, use of specific practices and stakeholder satisfaction, such as parents and community members (Orr et al., 2013). <http://eppi.ioe.ac.uk/cms/Portals/0/PDF%20reviews%20and%20summaries/Pedagogy%202013%20Westbrook%20report.pdf?ver=2014-04-24-121331-867>

**Determining behavioral objectives of teaching learning Process**

* **Importance of Goals and Objectives:**

Clearly defined goals and objectives form the foundation for selecting appropriate content, learning activities, and assessment measures. If objectives of the course are not clearly understood by both instructor and students, if your learning activities do not relate to the objectives and the content that you think is important, then your methods of assessment, which are supposed to indicate to both learner and instructor how effective the learning and teaching process has been, will be at best misleading, and, at worst, irrelevant, unfair, or useless.

* + Step 1 - Establish a Course Goal Stated simply, a course goal is a global statement about the projected outcomes of the course. Generally, a course goal is a broad statement that will include many subordinate skills.
  + Step 2 - Arrange Content in Topical Units The course goals listed above do not detail actual student performances or how they will be measured. Thus, your next step is to break down the goals and determine specific learning objectives that students will be able to achieve. However, before writing specific objectives it is often helpful to break the course content down into smaller “topical” units. In a course called “Relational Databases,” the course goal would be: The student will be able to design, develop, and evaluate a database application to facilitate worker performance on the job By breaking the course down into units and associating a time frame with the units, it becomes obvious which units are going to require the most instructional emphasis, and which will require the most testing.
  + Step 3 - Define Learning Outcomes The next step is to define learning outcomes for each of the units, which requires writing subordinate goals for each of the units.
  + Step 4 - Write Learning Objectives The next step is to write learning objectives for each of these subordinate topics A learning objective answers the question: “What is it that your students should be able to do at the end of the hour that they could not do before?” A learning objective makes clear the intended learning outcome or product of instruction, rather than what form the instruction will take. Learning objectives focus on student performance. Action verbs that are specific, such as list, describe, report, compare, demonstrate, and analyze, should be used to describe the behaviors students will be expected to perform.
* **Reasons for Developing Objectives**

Objectives help reduce complaints because:

* Students can see how the material is related to their educational goals or to any other goals they can recognize as being important.
* Your tests will correspond to the stated learning objectives. (Once you have written your learning objectives, you have defined your assessment materials.)
* Students know what to study and what they are expected to be able to do after the instruction.
* Your course is organized. (With objectives, the topics fit together and have direction.)

In short, learning objectives communicate what the instructor is trying to teach; what the students are to be expected to be able to do; how their achievement will be measured; and what will be accepted as evidence that they have achieved the goals. Types of Learning Outcomes Most of us recognize that there are many different types of objectives. Some are easy, only requiring the simple recall of a definition. Others are more complex, requiring problem solving or evaluation. One popular categorization scheme for types of objectives is Benjamin Bloom’s (1956) Taxonomy of Objectives for the Cognitive Domain, which includes the following levels:

* Knowledge - Primarily concerned with students’ ability to memorize or recall certain specific facts.
* Comprehension - Usually involves the ability to interpret, paraphrase, and extrapolate, thus demonstrating students’ basic understanding of ideas that they did not originate.
* Application - Includes activities in which the student applies concepts and principles to new and/or practical situations.
* Analysis - Concerned with breaking down a piece of information into its constituent parts, differentiating and denoting.
* Synthesis - Involves the blending of elements and parts to form a whole. Students should be able to create a structural pattern that was not previously present.
* Evaluation - At this highest level, students might judge the value of a work, the logical consistency of written data, or the adequacy of someone else’s conclusions. <http://liberalstudies.fsu.edu/documents/Chp2ODLLearningOutcomes.pdf>

**Unit 02: Roles of Teachers**

2.1 teacher as a planner

2.2 Teacher as a facilitator

2.3 Teacher as a guide/counselor

2.4 Teacher as a leader

2.5 Teacher as a mentor

2.7 Teacher as learner

**Roles of Teachers:**

Teacher leaders assume a wide range of roles to support school and student success. Whether these roles are assigned formally or shared informally, they build the entire school's capacity to improve. Because teachers can lead in a variety of ways and the following roles are a sampling of the many ways teachers can contribute to their schools' success.

* **Teacher as a planner:**

Your first and most important job is to plan and prepare the environment for learning. Because young children learn through play, it is essential that you provide the materials and equipment necessary for meaningful play activities that support the development of multiple intelligences. The classroom and the outdoor area must be set up with care so that the children will find interesting, stimulating, meaningful, and challenging things to do in an atmosphere that is orderly, safe, and has a sense of purpose. Young children also learn best when they feel emotionally safe and supported. When planning your classroom, always keep in mind the children’s ethnicities, cultures, languages, and differing abilities. Make sure that your environment, including your books, music, posters, pictures, dolls, dramatic play props, cooking activities, and the overall tone of your interactions, reflects a respect and concern for each child as a unique individual and as a member of a family and a community. In such a carefully planned learning environment, children will learn that school is a happy, safe, and interesting place in which they can explore, discover, and learn about themselves and the world around them. With this belief system in place they are prepared to move forward into the more structured world of “school” with eager anticipation and ready for success.

* Teacher as a facilitator:

When the planning and preparation are finished and children arrive for the day, your role shifts to that of a facilitator. It is your job to make sure that every child has the opportunity to experience success and learn according to individual needs, styles, and levels of ability. Move about the classroom and the outdoor area while the children are playing. Watch, listen, and talk with the children during their play. Ask open-ended questions to help children extend their thinking and stretch their vocabulary. While moving about the learning environment, be alert for special moments of discovery—“teachable moments”—when a child is on the brink of learning something new. When this happens, move closer and help the child take the new ideas a step or two further. For example, two children have built towers with blocks and they notice that one tower is taller than the other. This is a good time to move in and begin talking with the children about ways in which the towers are the same and ways in which they are different. Suggest measuring the towers and encourage the children to think of ways to do the measuring. They might suggest using a piece of yarn, their hands, their feet, their shoes, a tape measure, or a yardstick.

Encourage children to go from that point to measuring other objects in the room, comparing measurements, and “writing” their results on paper. When you are working with children in this exploratory way, always remember that their learning will be less meaningful if you give them the answer or take over the direction of the activity. When you facilitate children’s learning, you are setting things up and providing materials, time, space, and encouragement so that they can find their own answers in their own way and in their own time. That’s what early learning is all about. Observer The children’s playtime is also a time for you to observe each child carefully. Through careful observation of children at work and play you can begin to see which skills they have mastered and which skills need additional reinforcement. Your observations can give you insight into which intelligences are used more than others by a particular child. They may also raise your awareness of a child’s cultural, linguistic, or developmental needs. These observations will help you plan for the next day or week. If, for example, you see that a child has mastered all of the puzzles in the classroom, make a note of that and plan to provide more difficult puzzles the next day. If you notice that a child is calling all of the shapes in the block center “squares,” make a note of that observation and plan to spend more time with that child, mentioning the names of shapes that are encountered throughout the classroom. When that child chooses a block activity, you might go into the block center and say, “I see you’ve used many triangles in your building today,” as you point to the triangles. If that same child chooses to paint circles at the easel, say, “You’re painting a circle.” By casually mentioning the names of shapes over a period of days and weeks and months of play, the child is likely to learn the names of shapes easily and naturally.

* **Teacher as a resource provider**

Teachers help their colleagues by sharing instructional resources. These might include Web sites, instructional materials, readings, or other resources to use with students. They might also share such professional resources as articles, books, lesson or unit plans, and assessment tools.

Tinisha becomes a resource provider when she offers to help Carissa, a new staff member in her second career, set up her classroom. Tinisha gives Carissa extra copies of a number line for her students to use, signs to post on the wall that explain to students how to get help when the teacher is busy, and the grade-level language arts pacing guide.

* **Teacher as an instructional specialist**

An instructional specialist helps colleagues implement effective teaching strategies. This help might include ideas for differentiating instruction or planning lessons in partnership with fellow teachers. Instructional specialists might study research-based classroom strategies (Marzano, Pickering, & Pollock, 2001); explore which instructional methodologies are appropriate for the school; and share findings with colleagues.

When his fellow science teachers share their frustration with students' poorly written lab reports, Jamal suggests that they invite several English teachers to recommend strategies for writing instruction. With two English teachers serving as instructional specialists, the science teachers examine a number of lab reports together and identify strengths and weaknesses. The English teachers share strategies they use in their classes to improve students' writing.

* **Teacher as a curriculum specialist**

Understanding content standards, how various components of the curriculum link together, and how to use the curriculum in planning instruction and assessment is essential to ensuring consistent curriculum implementation throughout a school. Curriculum specialists lead teachers to agree on standards, follow the adopted curriculum, use common pacing charts, and develop shared assessments.

Tracy, the world studies team leader, works with the five language arts and five social studies teachers in her school. Using standards in English and social studies as their guides, the team members agree to increase the consistency in their classroom curriculums and administer common assessments. Tracy suggests that the team develop a common understanding of the standards and agrees to facilitate the development and analysis of common quarterly assessments.

* **Teacher as a classroom supporter**

Classroom supporters work inside classrooms to help teachers implement new ideas, often by demonstrating a lesson, coteaching, or observing and giving feedback. Blase and Blase (2006) found that consultation with peers

enhanced teachers' self-efficacy (teachers' belief in their own abilities and capacity to successfully solve teaching and learning problems) as they reflected on practice and grew together, and it also encouraged a bias for action (improvement through collaboration) on the part of teachers. (p. 22)

Marcia asks Yolanda for classroom support in implementing nonlinguistic representation strategies, such as graphic organizers, manipulatives, and kinesthetic activities (Marzano et al., 2001). Yolanda agrees to plan and teach a lesson with Marcia that integrates several relevant strategies. They ask the principal for two half-days of professional release time, one for learning more about the strategy and planning a lesson together, and the other for coteaching the lesson to Marcia's students and discussing it afterward.

* **Teacher as a Learning Facilitator**

Facilitating professional learning opportunities among staff members is another role for teacher leaders. When teachers learn with and from one another, they can focus on what most directly improves student learning. Their professional learning becomes more relevant, focused on teachers' classroom work, and aligned to fill gaps in student learning. Such communities of learning can break the norms of isolation present in many schools.

Frank facilitates the school's professional development committee and serves as the committee's language arts representative. Together, teachers plan the year's professional development program using a backmapping model (Killion, 2001). This model begins with identifying student learning needs, teachers' current level of knowledge and skills in the target areas, and types of learning opportunities that different groups of teachers need. The committee can then develop and implement a professional development plan on the basis of their findings.

* **Teacher as a mentor**

Serving as a mentor for novice teachers is a common role for teacher leaders. Mentors serve as role models; acclimate new teachers to a new school; and advise new teachers about instruction, curriculum, procedure, practices, and politics. Being a mentor takes a great deal of time and expertise and makes a significant contribution to the development of a new professional.

Ming is a successful teacher in her own 1st grade classroom, but she has not assumed a leadership role in the school. The principal asks her to mentor her new teammate, a brand-new teacher and a recent immigrant from the Philippines. Ming prepares by participating in the district's three-day training on mentoring. Her role as a mentor will not only include helping her teammate negotiate the district, school, and classroom, but will also include acclimating her colleague to the community. Ming feels proud as she watches her teammate develop into an accomplished teacher.

* **Teacher as a Leader**

Being a school leader means serving on a committee, such as a school improvement team; acting as a grade-level or department chair; supporting school initiatives; or representing the school on community or district task forces or committees. A school leader shares the vision of the school, aligns his or her professional goals with those of the school and district, and shares responsibility for the success of the school as a whole.

Joshua, staff sponsor of the student council, offers to help the principal engage students in the school improvement planning process. The school improvement team plans to revise its nearly 10-year-old vision and wants to ensure that students' voices are included in the process. Joshua arranges a daylong meeting for 10 staff members and 10 students who represent various views of the school experience, from nonattenders to grade-level presidents. Joshua works with the school improvement team facilitator to ensure that the activities planned for the meeting are appropriate for students so that students will actively participate.

* **Teacher as a record keeper**

Although teachers have access to a great deal of data, they do not often use that data to drive classroom instruction. Teacher leaders can lead conversations that engage their peers in analyzing and using this information to strengthen instruction.

Carol, the 10th grade language arts team leader, facilitates a team of her colleagues as they look at the results of the most recent writing sample, a teacher-designed assessment given to all incoming 10th grade students. Carol guides teachers as they discuss strengths and weaknesses of students' writing performance as a group, as individuals, by classrooms, and in disaggregated clusters by race, gender, and previous school. They then plan instruction on the basis of this data.

* **Teacher as a Change agent**

Teacher leaders can also be catalysts for change, visionaries who are “never content with the status quo but rather always looking for a better way” (Larner, 2004, p. 32). Teachers who take on the catalyst role feel secure in their own work and have a strong commitment to continual improvement. They pose questions to generate analysis of student learning.

In a faculty meeting, Larry expresses a concern that teachers may be treating some students differently from others. Students who come to him for extra assistance have shared their perspectives, and Larry wants teachers to know what students are saying. As his colleagues discuss reasons for low student achievement, Larry challenges them to explore data about the relationship between race and discipline referrals in the school. When teachers begin to point fingers at students, he encourages them to examine how they can change their instructional practices to improve student engagement and achievement.

* **Teacher as a learner**

Among the most important roles teacher leaders assume is that of learner. Learners model continual improvement, demonstrate lifelong learning, and use what they learn to help all students achieve.

Manuela, the school's new bilingual teacher, is a voracious learner. At every team or faculty meeting, she identifies something new that she is trying in her classroom. Her willingness to explore new strategies is infectious. Other teachers, encouraged by her willingness to discuss what works and what doesn't, begin to talk about their teaching and how it influences student learning. Faculty and team meetings become a forum in which teachers learn from one another. Manuela's commitment to and willingness to talk about learning break down barriers of isolation that existed among teachers.

Teachers exhibit leadership in multiple, sometimes overlapping, ways. Some leadership roles are formal with designated responsibilities. Other more informal roles emerge as teachers interact with their peers. The variety of roles ensures that teachers can find ways to lead that fit their talents and interests. Regardless of the roles they assume, teacher leaders shape the culture of their schools, improve student learning, and influence practice among their peers.

<http://www.ascd.org/publications/educational-leadership/sept07/vol65/num01/Ten-Roles-for-Teacher-Leaders.aspx>

**Unit 03: Approaches to Teaching**

3.1 Teacher centered Approaches

3.1.1 Lecture Method

3.1.2 Demonstration Method

3.1.3 Discussion Method

3.2 Child centered approaches

3.2.2 Problem solving strategy/Inquiry

3.2.3 Use of ICTs/Computer Assisted Instructions

3.2.4 Project Method

3.4 Team Teaching

3.5 Story Telling

3.6 Role Play

3.5 Micro Teaching

3.6 Cooperative learning

**Approaches to Teaching**

* Teaching methods and techniques
  + A method is a well defined pattern of procedures within which a variety of the techniques and devices may appear as circumstances may require.
  + a way of doing something, especially a systematic way; implies an orderly logical arrangement (usually in steps)
  + **Teaching methods** can best be defined as the types of principles and methods used for instruction.
  + Ways of presenting instructional materials or conducting instructional activities.
  + Teaching methods are best articulated by answering the questions, "What is the purpose of education?" and "What are the best ways of achieving these purposes?". ...
  + There are many types of teaching methods, depending on what information or skill the teacher is trying to convey.
  + When a teacher is deciding on their method, they need to be flexible and willing to adjust their style according to their students.
  + Student success in the classroom is largely based on effective teaching methods
  + The word method is often used very loosely. It has been supposed to involve a body of fixed and stereo-typed modes of procedures each applicable to its appropriate subject as a kind of ritual to be observed by all teachers and in all circumstances.
  + A method is not merely a device adopted for communicating certain items of information to students'. but a method must link up the teacher and his pupils into an organic relationship with constant mutual interaction.
* **Student Centered vs teacher centered methods**

|  |  |
| --- | --- |
| **Teacher-Centered** | **Learner-Centered** |
| Focus is on instructor | Focus is on both students and instructor |
| Focus is on language forms and structures (what the instructor knows about the language) | Focus is on language use in typical situations (how students will use the language) |
| Instructor talks; students listen | Instructor models; students interact with instructor and one another |
| Students work alone | Students work in pairs, in groups, or alone depending on the purpose of the activity |
| Instructor monitors and corrects every student utterance | Students talk without constant instructor monitoring; instructor provides feedback/correction when questions arise |
| Instructor answers students’ questions about language | Students answer each other’s questions, using instructor as an information resource |
| Instructor chooses topics | Students have some choice of topics |
| Instructor evaluates student learning | Students evaluate their own learning; instructor also evaluates |
| Classroom is quiet | Classroom is often noisy and busy |

<http://www.nclrc.org/essentials/goalsmethods/learncentpop.html>





<http://www.wcedcurriculum.westerncape.gov.za/files/eLearn%20Linked%20Articles/TeacherCenteredVsLearnerCenteredParadigms.pdf>

* **Lecture method**

A lecture is an oral presentation of information by the instructor. It is the method of relaying factual information which includes principles, concepts, ideas and all *THEORETICAL KNOWLEDGE* about a given topic. In a lecture the instructor tells, explains, describes or relates whatever information the trainees are required to learn through listening and understanding. It is therefore teacher-centred. The instructor is very active, doing all the talking. Trainees on the other hand are very inactive, doing all the listening. Despite the popularity of lectures, the lack of active involvement of trainees limits its usefulness as a method of instruction. The lecture method of instruction is recommended for students with very little knowledge or limited background knowledge on the topic. It is also useful for presenting an organised body of new information to the learner. To be effective in promoting learning, the lecture must involve some discussions and, question and answer period to allow trainees to be involved actively.

* **Preparation and delivery of a lecture**

As stated earlier, during the lecture, the trainees merely listen to the instructor. It is therefore very important to consider the attention span of trainees when preparing a lecture. The attention span is the period of time during which the trainees are able to pay full attention to what the instructor is talking about. It is estimated to be 15-25 minutes only. It is difficult to hold the trainees attention for a long period of time and careful preparation of lectures is very necessary.

The instructor should have a clear, logical plan of presentation. He/she should work out the essentials of the topic, organise them according to priorities and logical connections, and establish relationships between the various items. Careful organisation of content helps the trainees to structure and hence, to store or remember it. When developing a theme in a lecture, the instructor should use a variety of approaches. A useful principle in any instruction is to go from the *KNOWN* to *UNKNOWN*; from *SIMPLE* to *COMPLEX,* or from *PARTS* to a *WHOLE*.

Knowing the trainees and addressing their needs and interests is very important. For example, in explaining technical processes the instructor should search for illustrations that will be familiar to the trainees. Unfamiliar technical words should be introduced cautiously. New terminologies should be defined and explained and examples given.

In order to gain and focus the attention of trainees, the instructor should be adequately prepared, fluent in his/her presentation and should use various teaching aids and illustrations such as charts, transparencies, codes and even the real objects during presentation. Question and Answer periods should be included in the lecture.

* **Qualities of a good lecture**

1. A good lecture should not be too long as to exceed the trainees attention span (up to 25 minutes).

2. A good lecture should address a single theme.

3. In a good lecture technical terms are carefully explained.

4. Familiar examples and analogies are given.

5. A good lecture establishes fluency in technical content.

6. A good lecture uses illustrations and examples.

7. A good lecture builds on existing knowledge.

8. A good lecture employs a variety of approaches.

* **Discussion method/group work/cooperative learning**

Discussion involves two-way communication between participants. In the classroom situation an instructor and trainees all participate in discussion. During discussion, the instructor spends some time listening while the trainees spend sometimes talking. The discussion is, therefore, a more active learning experience for the trainees than the lecture.

A discussion is the means by which people share experiences, ideas and attitudes. As it helps to foster trainees involvement in what they are learning, it may contribute to desired attitudinal changes. Discussion may be used in the classroom for the purpose of lesson development, making trainees apply what they have learnt or to monitor trainees learning by way of feedback.

* **Lesson development**

In areas in which trainees already have some knowledge or experience, discussion may be used to develop the main points to be covered in a lesson. For example, in safety training many of the procedures and behaviour that should be observed can be established through discussion with trainees. Trainees can draw on their experience of working in workshops contract sites to contribute to the discussion. In discussing some issues, differences of opinion arise. The discussion can help to clarify the different points of view and may assist each trainee to define his or her own opinion. Used in this way, discussion may be more effective in motivating trainees than lectures. Trainees can see that some importance is attached to their contributions.

* **Application**

Discussion may also be used, following a lecture or demonstration, to help trainees apply what they have learned. The instructor can ask questions, that help trainees to relate concepts and principles to contexts that are familiar to the trainees or in which they will ultimately be needed. For example following a lecture on “types of wood joint”, the instructor may, lead a discussion directing trainees attention to the places or pieces of furniture where each type is found, and the reasons for using one type than the other. Used in this way discussion contributes to the transfer of learning.

* **Feedback**

The discussion method also provides an opportunity to monitor trainees learning. The answers provided by trainees and the questions they ask, reveal the extent and quality of learning taking place. Instructors can use this information to repeat or modify an explanation to improve learning. They can also provide feedback to trainees, thereby helping to reinforce learning that has taken place. Discussion used in this way should follow after other methods of classroom instruction such as lectures, demonstration or practice sessions.

* **Conducting a discussion**

Discussion sessions can be led by the instructor, or can take place in groups. In either case, the goal is to meet the lesson objectives by allowing the trainees to:-

a) Relate relevant personal experiences or events which have occurred in the work setting.

b) Contribute ideas or personal opinions.

c) Apply what has been learned to familiar situations or solving problems.

d) Express what had been learned.

Whether the discussion is instructor led or takes place in groups it must be guided by the instructor. It must be focused on the objectives of the lesson: it is the instructors responsibility to see that the objectives are met. If it is not properly guided, a discussion can degenerate into a consideration of inappropriate or unimportant topics adding confusion rather than clarification to the lesson.

* **Demonstration method**

“The most effective way to teach an occupational skill is to demonstrate it... one of the two most essential teaching skills is the ability to demonstrate; the other is the ability to explain. Both are vital to the success of either an operation lesson or an information lesson”.

* **Definition**

Demonstration means any planned performance of an occupation skill, scientific principle or experiment.

* **Teacher preparation**

1. Rehearse your presentation in advance of the lesson.
2. Anticipate any difficult steps, possible interruptions e.t.c.
3. Obtain all materials, tools, equipment, visual and teaching aids in advance and check their useful condition.
4. Have all materials within reach and conveniently arranged.
5. Time the demonstration NOT to exceed 15 minutes.
6. Remove all extraneous materials; check lighting, visibility, student grouping, and proximity to electric, gas and water outlets.
7. Plan to use a skill or method to advantage; work from simple to complex, one step at a time.

* **Presentation**

1. Make sure all students can see and hear the lesson.
2. Be enthusiastic, professional, effective but not dramatic.
3. Relax; use any mishaps or humour to YOUR advantage.
4. Observe all safety rules and procedures.
5. Keep eye-contact with the class; ask and encourage class questions.
6. Explain WHY and HOW: use the techniques of SHOW and TELL.
7. Use a medial summary to strengthen your explanation.

* **Precautions**

1. Avoid interruptions; keep demonstration smooth and continuous.
2. Never demonstrate on a student’s material.
3. Work towards one aim.
4. Allow time for possible student participation.

* **Carrying out a demonstration**

1. Give a good performance. Remember that the trainees learn by your good example.
2. Explain each step or process as you proceed. Follow your lesson plan.
3. Make sure the trainees see the demonstration from the angle they will perform it themselves.
4. Be sure everyone can see and hear. Maintain eye contact.
5. Emphasise key points, and if possible prepare before hand ask key questions as you go along and allow trainees to ask questions.
6. Observe all safety rules, precautions and procedures; and emphasise them.
7. Use proper instructions, aids such as chalkboard, charts, handouts e.t.c. to support your demonstration.
8. Provide for trainees participation where possible, during and after demonstration.
9. Demonstrate the correct way only. First impressions are important, therefore, make them correct ones.
10. Always summaries the steps and emphasize key points again.

* **AFTER DEMONSTRATION**

1. Return all items used during demonstration to their storage places.
2. Make arrangements to have the trainees practice the skill as soon as possible in a practical class session.
3. Observe and analyse trainee(s) performance and correct mistakes.
4. Offer reinforcement where necessary.
5. Coach weak or slow trainees.
6. Check trainee’s completed work for accurate performance and record.
7. Allow sufficient time interval before demonstrating another operation.

* **Uses** 
  + To teach manipulative operations or procedures.
  + To teach operation or functioning of equipment.
  + To teach team skills
  + To teach safety procedures.
* **Advantages** 
  + Builds confidence.
  + Enable learning evaluation.
  + Reduces damages and waste.
  + Promotes safety.
* **Disadvantages**
* Requires tools and equipment.
* Requires large block.
* Requires more instructors.

Problem solving, inquiry, discovery method

* **Project method**

A systemic teaching method that engages students in learning essential knowledge and skills through an extended, studentinfluenced inquiry process structured around complex, authentic questions and carefully designed tasks and products. Whether students work individually, in pairs, or in groups, having them design something from scratch taps their creative abilities. When using the project-based learning strategy, it is almost guaranteed that the endeavor will be interdisciplinary. The teacher's role is to serve as coach, guiding students to use a variety of resources, employ a strategy that is fun and motivating, and uncover content with depth and breadth. If we examine project-based learning in the most general way, we can break it down into the following nine steps (of course, teacher-coaches should modify the steps accordingly to suit the task and the students):

* + The teacher-coach sets the stage for students with real-life samples of the projects they will be doing.
  + Students take on the role of project designers, possibly establishing a forum for display or competition.
  + Students discuss and accumulate the background information needed for their designs.
  + The teacher-coach and students negotiate the criteria for evaluating the projects.
  + Students accumulate the materials necessary for the project.
  + Students create their projects.
  + Students prepare to present their projects.
  + Students present their projects.
  + Students reflect on the process and evaluate the projects based on the criteria established in Step 4.

<http://www.ascd.org/publications/books/106031/chapters/The_Nine_Steps_of_Project-Based_Learning.aspx>

* **Team teaching**

Team Teaching is a common term to describe several variations of a technique to teach a course with more than one instructor. The method shifts the role of instruction from an individual to a team with a primary goal of improving the quality of teaching and learning. Team teaching is one step to constantly adjust the educational system to the changing needs of the students and abilities of the teachers. Although the term and methods have been in existence for decades, the literature on the subject is not as developed as one would expect. Several books and articles have addressed the subject and have discussed some advantages, disadvantages, and considerations when team teaching. Education experiences unique challenges as well as opportunities. One logical starting point for change is with the faculty. For instance Meyers and Ernst (1995) state engineering educators cannot ignore the real world’s shifting focus to interdisciplinary engineering, and they should adapt as well. Recently the National Academy of Sciences (2005) developed a publication “Educating the Engineer of 2020”, which mentioned many ideas of co-teaching, just in time teaching, and multi-disciplinary teaching. Industry and various academic institutions feel that it is vital to integrate engineering because most systems existing presently are developed with integrated engineering teams. Similarly, the education process is a team effort with excellent communications between faculties. Davis (1997) contends that allowing the faculty team to synchronize their efforts brings their individual strengths and resources together for the course. Team teaching usually involves discipline specific instructors teaching their area of expertise to the students. However, this requires the faculty to understand and have some fluency in the other discipline. Nevertheless, team teaching a course requires a committed, motivated faculty who are creative and willing to change.

* **History of Practice**:

Shafer (2000) and Buckley (2000) point out that team teaching may seem new and untried. However, it has actually been a practice from the Socratic dialogue to public medieval debates. Nevertheless, it has evolved informally over time. Wraga (1997) notes that team teaching was a way to teach larger groups of students during the 1950’s as the country faced a post war teacher shortage. Buckley (2000) outlines the motivation for team teaching. Early forms of team teaching, using new technologies such as computers and video, in secondary schools were tried decades ago. At the same time, university faculties were ready to try new methods as the demand to specialize was growing. Faculty realized the narrowness of their expertise. Additionally, there was a growing demand for “the big picture” and how all the material or facts fit together. Berentsen (2006) states that not all teachers buy into team teaching for a variety of reasons: they have a system that works for them or they may not want to be team teachers.

* **Variations of Team Teaching:**

Buckley (2000) defines team teaching widely from a weak method of a teacher who is responsible for a class that just schedules lecturers with no instructor interaction to a stronger example of a group of instructors who attend each others’ lectures and interact with the primary instructor and exchanging ideas. There is no template for team teaching that works for all courses. Instructors may be all one or several disciplines, and they may have different roles and responsibilities. Similarly, Wraga (1997) notes that effective team teaching at the college level usually involved two to five instructors attending each class session and interacting with each other. Davis (1997) acknowledges that team teaching really extends beyond the classroom. His emphasis is on the involvement of two or more instructors collaborating in significant ways. Team teaching will vary in the amount of collaboration that actually takes place in general, but also specifically with regard to planning, content integration, teaching, and evaluation. Goetz (2000) further differentiates team teaching into two major categories: two or more instructors teaching the same students at the same time in the same classroom, and instructors working together but not necessarily teaching the same group of students or at the same time. Goetz further divides both of these categories into five or six models with different roles and responsibilities for the teachers.

* **Benefits:**

Buckley (2000) suggests that in the ideal team taught course, faculty have overcome the challenge of “connecting learning” and students have the opportunity to see relationships that they don’t get to see in other courses as different teachers bring in their expertise and perspective to the course. Davis (1997) emphasizes that teams usually possess a broad range of expertise, so there is a natural tendency to emphasize breadth, including a broad range of topics, because the faculty know about many things. This breadth is one of the advantages of teams. On the other hand, teams can also focus on a single theme, examining it in depth from several different disciplinary perspectives. Traditional teaching, as it has been conducted by individual professors in their own classrooms, has required that each professor do it all, without any help. The assumption is that every professor is good at everything and needs to be good at everything. Team-taught courses offer an opportunity to divide up the tasks and bring different talents into play for different functions. With team-teaching, some people can specialize in large group lectures, some can specialize in facilitating case discussions, some can work with students on their writing, and others can assist students in locating and retrieving information.

Students have the advantage of dealing with experts in these various roles. Goetz (2000) cites the following advantages: it gives the participating team teacher a supportive environment, allows for development of new teaching approaches, aids in overcoming academic isolation, increases the likelihood of sounder solutions regarding the discipline of problematic students and augments the opportunity for intellectual growth. Wankat & Oreovicz (1993) state that new teachers can be better and more effective when guided. Mentoring works best when the procedure is formalized. Some universities use team teaching of courses to help new faculty in their professional growth.

* Challenges

It is well documented in general literature on team and interdisciplinary teaching that the greatest challenge for the instructors is the time and energy required to work as a team (Hughes-Hallett, 1998 and Speaking of Teaching, 2007). The time required prior to the implementation of the team teaching partnership for professional development, the many meetings needed during the running of the program as well as the numerous informal discussion that are bound to arise can be taxing. Ironically, the time factor that is so necessary to team teaching can also be divisive as it may lead to conflict. Davis (1997) describes that in planning the ideal course, the faculty team needs to make conscious and justifiable decisions about the scope of the course, the sequence of topics, and the appropriate balance of breadth and depth. Additionally, in traditional disciplinary courses, most of these decisions are fairly uncomplicated and are usually made by one person, the teacher. In team-taught courses, the organization can get complicated, and the course coordinator can begin to orchestrate more than teach. Not everyone is expected to do the same thing. Team taught courses must also have rules about who will do what. In the ideal team-taught course, a variety of personnel are used in creative ways, but all the people involved are clear about their roles and know how their efforts contribute to the whole.

* **Conclusions and Recommendations**

The issues concerning team teaching are copious and complicated. No single model of team teaching will automatically result in success for a given teaching situation. Davis (1997) sums with “the ideal team-taught course has a defined structure and actually becomes a small organization. The form of the organization flows directly from its function.” The team partitions its work, defines various roles, and recruits and trains people to perform these roles. The organizational structure of the course is important. Throughout the literature on team teaching, certain important factors seem to be necessary for a successful team teaching program: (1) well matched and like-minded team members, (2) mutual dedication to team teaching and continuing communication, (3) an interest in relating the content or curriculum to real life, and (4) a strong desire to excite the students’ learning. Additionally, the program goals, as well as the roles of the teachers and administration should be well-defined. Team teaching is simply an instructional model which may not be as popular as more traditional methods. This may be unfortunate, because it can be one of the most effective manners to deal with certain topics, particularly those involving multidisciplinary subjects. <http://www.usma.edu/cfe/Literature/Rabb_09.pdf>

* **Story telling**

"Tell me a fact and I'll learn. Tell me the truth and I'll believe. But tell me a story and it will live in my heart forever." - Indian Proverb

Once upon a time, long ago and far away (or perhaps not so long ago), teachers did not use fancy PowerPoint presentations, overhead projectors, or even chalkboards. They simply shared their knowledge through stories. Think back over your years of sitting in classrooms. What are the moments that you most remember? For me, one of those moments was my professor in introduction to psychology spinning the tale of Rosenhan's pseudopatients, perfectly sane individuals who checked into a mental institution and proceeded to act in normal ways. It seemed like an amazing adventure - what was going to happen to these people in the mental hospital? The class was hanging on his every word. The odds are that your memorable moments, too, have to do with stories - not theories or definitions or dates, but an unfolding narrative, complete with suspense, drama, or humor, or perhaps a personal anecdote shared by a favorite teacher. Of course, a classroom narrative may be linked to a major discovery, study, or figure in psychology, but it is not always the importance of the discovery alone that allows it to stay fresh over the years. Rather, the means of presenting the information can make it exciting and unforgettable.

The power of stories has been recognized for centuries, and even today, in Hollywood and beyond, storytelling is a multi-million dollar business. Stories are a natural mode of thinking; before our formal education begins, we are already learning from Aesop's fables, fairy tales, or family history. Indeed, some researchers have even claimed that all knowledge comes in the form of stories (Schank & Abelson, 1995)! Although this strong claim has been questioned, it is generally agreed that stories are a powerful structure for organizing and transmitting information, and for creating meaning in our lives and environments.

* **NATURE OF STORIES**

In essence, a narrative account requires a story that raises unanswered questions or unresolved conflicts; characters may encounter and then resolve a crisis or crises. A story line, with a beginning, middle and end, is identifiable. In Bruner's (1986) words, "[Narrative] deals in human or human-like intention and action and the vicissitudes and consequences that mark their course. It strives to put its timeless miracles into the particulars of experience and to locate the experience in time and place." Stories can bring abstract principles to life by giving them concrete form. We cannot always give students direct experience with psychological concepts, but stories might come close. A story tends to have more depth than a simple example. A story tells about some event - some particular individuals, and something that happens to them. Stories engage our thinking, our emotions, and can even lead to the creation of mental imagery (Green & Brock, 2000). Individuals listening to stories react to them almost automatically, participating, in a sense, in the action of the narrative (e.g., Polichak & Gerrig, 2002). Bringing all of these systems to bear on the material in your course helps student learning. Students are awake, following along, wanting to find out what happens next and how the story ends. Bruner (1986) has contrasted the paradigmatic (logical, scientific) and narrative modes of thinking, but these modes need not be mutually exclusive in the classroom.

* **Purpose of stories**

Stories can serve multiple functions in the classroom, including sparking student interest, aiding the flow of lectures, making material memorable, overcoming student resistance or anxiety, and building rapport between the instructor and the students, or among students themselves. Stories Create Interest As an instructor, you can capitalize on the inherent narrative structure of research as the quest for knowledge. Science is the process of solving mysteries; in fact, writers of journal articles are often advised to make their findings into "a good story." Psychologists often start out by confronting an intriguing problem. For example, why are bicycle riders faster when they are racing against another person than going around the track by themselves? Researchers also encounter and overcome various obstacles in their quest to understand a phenomenon. For example, when researchers tried to replicate social facilitation effects, sometimes the presence of others improved performance, and other times it harmed performance. Why would that be? Take advantage of the suspense that this chain of events can create. Telling the story of how researchers became interested in a particular issue, without immediately providing the resolution, will motivate your class to think of their own approaches to solving the problem. They can share in the sense of discovery. Understanding the process of solving a research problem can generate excitement, as well as an increased appreciation for the "detective work" involved in psychology. Characters are an important element of any tale, and indeed, stories can also make material concrete and memorable by putting a human (or animal) face on theories and issues. Students may remember the peril of H. M., the patient who could not form new memories, long after they have forgotten other details of brain anatomy or memory research. They may have a vivid mental image of Harry Harlow's orphaned monkeys interacting with cloth or wire "mothers." If they remember the concrete elements of the story, they may then be able to reconstruct the abstract lessons illustrated by the story. Furthermore, listeners may identify with the protagonists of your stories, and thus might be better able to relate course material to their own lives. Making the material personally relevant can lead to increased thinking about the material and a greater ability to apply the new knowledge. Similarly, giving some background about the researchers who developed particular theories can help engage student interest by humanizing the research process, and may even provide role models for students who may be interested in pursing research themselves. (This approach can be used to excellent effect in history of psychology courses.)

Stories can convey the passion, enthusiasm, and curiosity of the researchers. Sometimes psychological research can seem divorced from the real world, but in the process of developing his theories about compliance, Cialdini actually went through training programs to becomes a salesman of encyclopedias, dance lessons, and the like. He also went "on the inside" as a particiapnt-observer to study advertising, public relations, and fundraising agencies to learn about their techniques. Students studying social influence love to hear about Cialdini immersing himself in the world of compliance professionals. Stories Provide a Structure for Remembering Course Material Coherence is the hallmark of a good narrative. Remembering a list of isolated concepts and definitions is difficult, but recalling the flow of a research story may be easier for students. As mentioned above, stories may also help create vivid mental images, another cue for recall. Because stories provide natural connections between events and concepts, mentioning one part of the story may help evoke the other parts of the story, just as hearing one bar of a familiar tune may bring the entire song to mind. Stories Are a Familiar and Accessible Form of Sharing Information Some students may be intimidated by abstract concepts, or may doubt their ability to master or understand the material. A story may provide a non-threatening way to ease students into learning. A narrative opening may seem simple and straightforward, allowing students to relax and grasp a concrete example before moving into more technical details of a theory or finding. Sometimes stories can even be about the learning process; tales of previous students who struggled but then succeeded might serve as inspiration for current students. (It probably goes without saying that telling stories that mock or disparage previous students may do more harm than good.) Telling a Story From Experience Can Create a More Personal Student-Teacher Connection This rapport can lead to a positive classroom climate. Perhaps you are a clinical psychologist who has seen a patient with a particularly compelling presentation of the disorder you're discussing in class. Or maybe you're a social psychologist who has had your own brush with bystander intervention and diffusion of responsibility. Sharing these experiences gives the class a new tone, and makes the subject come alive. As long as every class session isn't another chapter from your autobiography, students enjoy seeing a glimpse of the human side of their professors. As an added benefit, in discussion classes, providing this kind of opening may inspire reciprocity and help create an atmosphere where students are more willing to share their opinions and experiences.

* **Finding and selecting stories**

There are a wealth of sources for teachable stories - current events, history, television programs, classic literature or drama, and personal experience (your own and others). Some instructors find it useful to have a folder or notebook for teaching stories; make a habit of clipping relevant newspaper stories, or making notes about events that are perfect illustrations of some psychological concept that appears in your course. These don't have to be current events to capture student interest: A colleague uses a scene from the book Killer Angels (Shaara, 1974), about the Battle of Gettysburg, to demonstrate the power of perception over reality. In the book, the Confederate General Longstreet is portrayed as sitting calmly before the battle. A foreign journalist infers that he is composing himself, thinking of strategy and so forth. In reality, he is weeping, knowing his men will die because he asks them to, knowing what the day will bring. And remember, research results need to be true, but stories do not. Do not be afraid to use stories from fiction, especially well-known fiction. For instance, the children's story "The Emperor's New Clothes" demonstrates social influence principles; the interactions between Iago, Othello, and Desdemona in Shakespeare's play Othello provide a powerful illustration of the importance of perceptions over objective reality. Textbooks may also be sources of stories; some books use stories to introduce or frame chapters, while others (such as Aronson's Social Animal) intersperse narratives throughout. Readers may want to consider books with "inside stories." Such stories have been collected by Brannigan and Merrens (1995) in their Research Adventures series. Other recommendations for sources of stories include: \* A History of Geropsychology in Autobiography. (Birren & Schroots, (2000) \* Case Studies in Abnormal Behavior (6th ed.) (Meyer, 2003) \* Classic Studies in Psychology (Schwartz, 1986). \* Disordered Personalities in Literature (Harwell, 1980) \* Forty Studies that Changed Psychology: Explorations into the History of Psychological Research (4th Ed.) (Hock, 2002) \* Pioneers of Psychology (3rd ed.) (Fancher, 1996) \* Portraits of Pioneers in Psychology (Kimble, Wertheimer, & White, 1991) \* The Story of Psychology (Hunt, 1993)

Think about common experiences that your students have likely had - stories about leaving home, dealing with roommates, handling relationships, and the like may be especially relevant to a college-age audience. The case study method, frequently used in business schools, is a popular means of introducing stories into the classroom. Cases typically set up a problem by giving background information about a situation (for example, the history of a company), and end with a current dilemma faced by an individual or organization. They are often designed to illustrate a particular point or demonstrate certain analytic procedures. Students are encouraged to generate possible solutions and consider the consequences of those solutions. This method encourages active learning, and in essence, puts students in the role of writing the ending to the story. A related method (which can be more or less narrative in form) is role-playing, where students actively create or take part in a mini-drama in the classroom.

McKeachie (1999) gives the example of students taking the perspective of Freud or Skinner in responding to a treatment situation. Role-playing is another means of merging the power of stories with the benefits of active learning. Stories may also be integrated with technology. You may be able to locate computer-based or interactive stories that relate to your course content. (If you are programming-savvy or have time on your hands, you may even be able to develop these kinds of applications.) Teaching Web sites can also be rich sources of stories. And you don't always have to be the storyteller; films and Web sites may also be effective means of delivering psychology's stories.

* **Telling stories in class**

The lecture itself may be structured as a narrative, or a story can simply be an illustration of a key point. Taking advantage of the natural drama of research stories can help the pacing and flow of your lectures. Imagine yourself as a storyteller, perhaps with your students gathered around a campfire. Rather than marching through the material, fact by fact, you can add storytelling flourishes. Let the suspense build - pause for a moment before revealing the results of the study, to draw in students' attention. Stories can also be a natural way to introduce humor into your lecture. One way to learn about how to tell a story is to listen to master storytellers at work. National Public Radio provides some wonderful examples: Garrison Keillor, for instance, enthralls thousands of people each week with his tales of Lake Wobegon. You may also know people in your own life - relatives, friends, and colleagues - who can spin a marvelous tale. Take note of how they involve their audience, and use those techniques as you develop your own style. Do they pause at key places? What information do they give early on to draw listeners in, and how do they maintain suspense? Do they bring characters to life with vivid descriptions or unique voices? Just as you develop your own style of teaching, so too can you develop your own style of storytelling that draws on role models, but fits your own personality.

As with any example, a story should be a clear illustration of the principle you're trying to demonstrate. Because listeners have their own interpretations of the point of stories, it is your responsibility as an instructor to make the message of the story clear, and draw links between the story and the abstract principles it demonstrates. Beginning students, especially, may not be able to make these connections on their own, or they may remember peripheral aspects of the story rather than the main point. Students should be aware that classroom stories are part of the learning experience, not a tangent from it. Keep the story clean and to the point. Furthermore, if a story doesn't quite match the concept you are trying to demonstrate, you may be better off omitting it. At exam time, students who remember a story from class should not be misled by its conclusions. When is the best time to tell a story for it to have the maximum impact? Schank (1990) suggest that stories should come after surprises, or expectation failures. When individuals have recognized flaws in their existing models of the world, they are open to correcting those models. Individuals are especially open to learning when the expectation failure and story are relevant to their goals. For example, suppose you had just come back from teaching a particularly frustrating day of class, where students' minds were wandering and you couldn't seem to engage the class. If at that moment, your colleague told you about how she had transformed her classroom environment by starting each lecture with a story that presented a real-world problem or mystery, and working through it over the course of the class session, you might be especially open to learning from that tale.

For your students, framing stories with relevant problems (succeeding at a job, getting along with roommates) may help make them more likely to be attended to and recalled. Along the same lines, stories can be told from different points of view. Think about perspective when you're designing your lecture. You could describe an experiment from the researcher's point of view, but you might instead begin by telling the story of what a participant in that study experienced instead, to draw students into the situation. Imagine, for example, being a participant in the Asch conformity studies, with rising levels of confusion and doubt as your fellow participants continue to give wrong answers to a line judgment task. Stories can encourage empathy, and putting themselves in participants' shoes can sometimes help students understand the power of experimental situations. Varying the presentation of research to focus on a researcher versus a participant perspective can also help add spice to your lectures. In some types of courses, particularly smaller seminars, it may be appropriate to have students share stories from their own lives, and indeed, students may spontaneously do this even in larger courses. This is another form of active learning, and students may be even more attentive to a story told by their peers. An instructor's role might then be to link aspects of these narratives to theories or principles in the psychological literature. (Students may become frustrated with a course that appears to consist only of sharing individual experiences, without links to theory or research.) If individuals are likely to be sharing stories that may be sensitive - for example, struggles with psychological disorders, experiences with stereotyping or prejudice, - ground rules about respect for others, not discussing personal revelations outside the classroom, and the like should be established early. Can there be a downside to using stories in the classroom? One issue that psychology instructors sometimes face, especially in introductory and social psychology courses, is helping students to understand that personal experience isn't everything, and that psychological questions can be tested scientifically and evaluated with data. Your use of stories should be integrated with reference to empirical evidence, so that students do not come away with the impression that a single story, even an especially vivid and compelling one, should be understood as proof for a particular position. You may also want to solicit student feedback on your stories, especially if you are telling a particular story for the first time, or if you are new at introducing storytelling into your teaching. You might ask students to list stories that they found to be interesting and useful, and alternatively, note whether any stories seemed to wander or create confusion. At the end of class or after telling a story, you might take a minute or so to ask students to summarize the point of a story you told, to make sure that your message has been conveyed. Stories can serve another function that goes beyond the classroom. Shared narrative can be a force in creating community. Stories tie current students to traditions and people from the past. If an important event or discovery took place on your campus or in your town, let students know about it. Tell stories that embody the values of your discipline and your campus. Share your teaching stories with colleagues. And may you and your students live happily ever after. <http://tlc.utk.edu/wp-content/uploads/sites/39/2013/08/Story_in_Teaching.pdf>

* **Role play**

In role plays, participants use their own experiences to play a real life situation. When done well, role plays increase the participants self-confidence, give them the opportunity to understand or even feel empathy for other people’s viewpoints or roles, and usually end with practical answers, solutions or guidelines.

Role plays are useful for exploring and improving interviewing techniques and examining the complexities and potential conflicts of group meetings. They help participants to consolidate different lessons in one setting and are good energisers.

However, role plays can be time-consuming and their success depends on the willingness of participants to take active part. Some trainees may feel a role play is too exposing, threatening or embarrassing. This reluctance may be overcome at the outset by careful explanation of the objectives and the outcome. Some role plays can generate strong emotions amongst the participants. It is therefore essential that a role play is followed by a thorough debriefing. This provides the opportunity for the trainer and the participants to raise and assess new issues.

1. Exploring and improving interviewing techniques and examining complexities and potential conflicts of groups.
2. To consolidate different lessons in one setting.

* **Advantages**

1. Good energizers.
2. Promotes empathy of trainees for other situation.
3. Encourrages creativity in learning.

* **Disadvantages**

1. Participants might be reluctant.
2. May not work with trainees who do not know each other well.

**Unit 04**: **Managing Teaching**

* **Identifying the learners’ needs and characteristics**

The concept of learner characteristics is used in the sciences of learning and cognition to designate a target group of learners and define those aspects of their personal, academic, social or cognitive self that may influence how and what they learn. Learner characteristics are important for instructional designers as they allow them to design and create tailored instructions for a target group. It is the expected that by taking account of the characteristics of learners, more efficient, effective and/or motivating instructional materials can be designed and developed. Learner characteristics can be personal, academic, social/emotional and/or cognitive in nature. Personal characteristics often relate to demographic information such as age, gender, maturation, language, social economic status, cultural background, and specific needs of a learner group such as particular skills and disabilities for and/or impairments to learning. Academic characteristics are more education and/or learning related such as learning goals (of an individual or a group), prior knowledge, educational type, and educational level. Social/emotional characteristics relate to the group or to the individual with respect to the group. Examples of social/emotional characteristics are group structure, place of the individual within a group, sociability, self-image (also feelings of self-efficacy and agency), mood, et cetera. Finally, cognitive characteristics relate to such things as attention span, memory, mental procedures, and intellectual skills whichdetermine how the learner perceives, remembers, thinks, solves problems, organizes and represents information in her/his brain. With respect to learner characteristics, there are often large differences between the characteristics of different learners and groups of learners such as children, students, professionals, adults, older people and disabled persons. These groups differ in their motivation, prior knowledge, expertise level, study time, and physical abilities. The differences within the learner characteristics have an impact on the structure of the instruction and the degree of support and guidance of the learning process.

* Theoretical Background

The theoretical roots of learner characteristics can be traced back to Witkin (1949; 1978, p. 39) who saw them as a “characteristic mode of functioning that we reveal throughout our perceptual and intellectual activities in a highly consistent and pervasive way”. In other words, learner characteristics are seen as traits (i.e., characteristic of the learner and, thus, not easily influenced) and not as states (i.e., characteristic of the situation in which the learner finds himself/herself and, thus more easily influenced). As early as 1949, Witkin published research related to field dependence/field independence. Field dependent people have difficulty separating an item from its context while a field independent person can easily break up an organized whole into its relevant parts. A second driving force with respect to learner characteristics – and especially cognitive learner characteristics - was Guilford who referred to them as intellectual abilities (Structure of Intellect Model, 1967). He organized these abilities along three dimensions, namely operations (cognition, memory, divergent production, convergent production, and evaluation), content (visual, auditory, symbolic, semantic, and behavioral) and products (units, classes, relations, systems, transformations, and implications). Guilford saw these dimensions as being independent of each other yielding, theoretically, 150 different components of intelligence on which learners can differ.

With respect to the coupling or use of specific instructional approaches for specific learner characteristics, Cronbach and Snow (1977) posited their model of Aptitude Treatment Interactions which held that certain instructional strategies (i.e., treatments) will be more or less effective for different individuals depending upon the individual’s specific abilities (i.e., aptitude). This model presupposes that optimal learning is the result of the instruction being perfectly matched to the learner’s aptitudes.

* **Important Scientific Research and Open Questions**

Though there are many important questions, these can be categorized into major categories namely: What learner characteristics are - or may be - truly important for making learning more effective, efficient and/or enjoyable? There is no such thing as ‘the’ learner characteristic(s). Learning characteristics are highly individual and vary for every learner. Are there certain characteristics that are more important (i.e., play a greater role in influencing how instruction affects the learner) than others? Instructional designers must constantly deal with new and differing groups of learners and thus must make decisions as to what characteristics of the target group are most important when tailoring instruction. Is it possible to discern different learning styles and how do we do this? There is much debate as to whether learning styles actually exist. Pashler, McDaniel, Rohrer, and Bjork (2009) conclude that the “contrast between the enormous popularity of the learningstyles approach within education and the lack of credible evidence for its utility is, in our opinion, striking and disturbing. If classification of students’ learning styles has practical utility, it remains to be demonstrated” (p. 117). Are preferred learning styles as reported by learners really suitable for tailoring instruction? If this is the case, learners with certain learning characteristics would get certain learning materials allocated to them. As a consequence the learners receive learning content that fits to their preferred learning style. This approach is contentious for a number of reasons, for example because (1) what learners say that they do while studying does not usually correspond to what they actually do, (2) even if this were not the case, learners prefer not only one learning approach, but rather certain learning styles for particular situations, and finally (3) is that which is preferred actually what is best for the learner (Kirschner, Sweller, & Clark, 2006).

Current research on learner characteristics impacts the personalization of learning within the field of Technology-Enhanced Learning (TEL). In TEL, personalization is a key approach to overcome the plethora of information in the Knowledge Society and especially of adults and professionals. It is expected that personalized learning has the potential to reduce delivery costs, create more effective learning experiences, accelerate study time to competence development, and increase collaboration between learners. TEL researchers use the definition of learner characteristics from the sciences of learning and cognition as meta-data fields to create so-called learner models. Such learner models are customized to the target group of a TEL-environment. Most often it contains learning goals, prior knowledge levels, and certain personal preferences that a learner can specify in a learner profile. An open research question is: What is the best way to aid learners in making learning in a TEL environment more personalized, effective, efficient and/or enjoyable? In the early e-Learning days, TEL researchers tried to match learning content or adjust a learning environment to the information a learner personally entered in a learner profile.

Nowadays, the learning characteristics meta-data fields are filled with statistics based on different mathematical methods of modeling a learner. These methods take into account the dynamic behavior of learners in a TEL learning environment. Thus, they record learner activities such as most viewed pages, time spent on pages, written texts from blogs, comments on others or on discussions boards, contributed hyperlinks and their content, and so forth to create a learner model. The collected information is gathered and clustered in the learner characteristics meta-data fields. Based on this mathematical model, every learner receives a score for each of the learner characteristics. This score can be compared with the score of other learners and with the content in a TEL environment by similarity measures. There are various combinations of similarity measures possible and it is an open question which of them model a learner most accurately. One major challenge of the current research is to find suitable evaluation criteria to compare the different learner model ap- proaches. A good overview about the different learner modeling approaches can be found in Manouselis, Drachsler, Vuorikari, Hummel, and Koper (2010).

<https://www.researchgate.net/publication/234057270_Learner_Characteristics>

* **Approaches to lesson planning**

A lesson is an organized set of activities designed to present one manageable-sized piece of your course. Don’t confuse lesson with lecture as it is commonly used in the expression lecture/lab when describing course hours. You may have more than one lesson in a 50-minute lecture or lab. A lecture is just one teaching technique that you may use in a lesson. The stages and flow of a lesson Each lesson should be a complete segment in itself, providing new learning. Try to keep your students in mind as you plan your lesson—ask yourself:

* Who are they?
* What do they already know?
* Why should they learn about this?
* What must they learn?
* What must they do to learn?
* How will they demonstrate their learning?
* What the instructor and students do varies at the different stages of a lesson. The stages of a lesson plan—beginning, middle, end—reflect the three stages of learning:
  + Motivation (beginning)
  + Guidance (middle)
  + Practice (end)

Each stage should flow smoothly into the next, which builds on the previous. If students do not have an opportunity to go through all three stages, learning may not occur! Three stages of learning Science has not determined fully how the brain works. Memory as we understand it can best be explained in terms of short-term and long-term memory

* **Motivation**

First, there must be the need or desire to learn something specific. This is the first stage of learning. We see, hear, taste, smell, or feel millions of stimuli every day. If the information you receive is not needed or used, it goes right back out again or is discarded. For example, while driving your car on the highway you see many signs on the side of the road. Most of these you take a quick look at, and if the information doesn’t apply to you then it just fades away in a second or two. Even though there are countless things in the environment to learn about, we can only deal with one piece of information at a time. You’ve probably noticed that you cannot read something while listening to someone speak. If you try, you will likely remember part of what you read and part of what you heard, but not enough of either one to have a complete understanding. Naturally, we do not remember everything that we are exposed to. We only remember those things that we pay attention to. Our receivers (eyes, ears, nose, hands and skin, etc.) have very limited memory. The information will only last for 1/2 to 2 seconds unless you do something to move it to the next component, the short-term memory.

* Guidance

The guidance stage is where most of the learning happens. Information that is received and moved to the short-term memory will be stored there temporarily. When information comes in, you decide what to do with it. You can either use it immediately and then forget it, or try to store it for use later. An example of doing something with the information immediately and then forgetting it is typing or wordprocessing. You read a few words or a sentence from your work and then type it. As soon as your fingers (your responders) have typed the words they are normally forgotten and you are ready to type the next few words or sentence. The capacity of the short-term memory is limited to about seven pieces of information at a time, and after about 20 seconds the information starts to fade. It is usually completely gone after that time unless you decide you need to keep the information. Then you will make a deliberate effort to transfer it to your long-term memory. Putting information into long-term memory requires two things:

* connecting the new information with something that you already know
* doing something with the information repetitively

Connecting it to something that you already know is a bit like storing information in a computer. We create directories and then files where we store similar information so that we know where to find it again. Once we are motivated to learn something, we must somehow have access to the information again when we need it. What you do with the new information will depend on your preferred learning style. You might find that you can remember something if you write it down and then read it several times. You might prefer to talk about it or say it aloud several times, or you may need to physically do something repeatedly in order to remember it.

* Practice

The third stage of learning is practice—applying what you have learned, largely on your own. Here is where you practice that new dance step or practice playing that new song on a musical instrument. Here is where you go on a nursing practicum or teaching practicum, or you work on a welding project for a steel fabrication apprenticeship course. Practicing is as important for storing information in long-term memory as connecting it with something that you already know.

Guidelines for making a lesson plan You need to pay attention to the three stages of learning at the different stages of the lesson. Beginning stage As an instructor, part of your job is to try to motivate the students—make them want to learn the new material. Tell them what the learning outcome of the lesson is and how they can use it on the job and in other areas of their lives. Remember that they can only concentrate on one thing at a time, so make sure they are concentrating on what you want them to learn. Middle stage As an instructor, this is where you do the teaching and where most of the learning happens. Part of your job is to help your students connect the new information to something that they already know and to help them “file” it so that they can find it again later. People generally need a systematic way of organizing information in order to learn it. Your instructional aids, student learning materials, etc., are guides to help students store the information and reach it again when they need it. Make sure the information is ordered logically so that they can easily put it in their longterm memories. Another important part of your job is to provide opportunities for your students to attempt to use the information and then give them your feedback. End stage As an instructor, it is up to you to provide a variety of ways for your students to recall or practice with the information so they can commit it to memory.

When preparing a lesson plan, use the following checklist:

At the beginning, I plan to:

* Use a bridge-in to capture students’ interest and motivate them to learn (make sure they are listening to you—one thing at a time)
* Make the learning outcomes clear (one thing at a time)
* Assess prior learning and student expectations (show why and how they can use this in real life) In the middle, I plan to:
* Use strategies to actively involve students in the learning process
* Use a variety of media to illustrate concepts and processes
* Ensure that the lesson flows easily and logically (from simple to more complex)
* Ensure that students are learning material that is meaningful and new
* Provide many opportunities for students to attempt the task and receive feedback
* Review and build on related material
* At the end, I plan to: Provide the proper closure students find important. To do this, I will:
* Assess what students have learned
* Summarize the lesson (referring back to the intended learning outcomes)
* Connect the lesson to real life and/or the next lesson
* Suggest or provide opportunities for practice (homework, reading assignments, simulations, etc.)
* **Using the appropriate technique**

The techniques you plan to use in your lessons depend on:

* the types of students you have and their previous knowledge
* your physical teaching environment and the available equipment and resources
* the type of learning you are aiming for Some of the possibilities are listed below.

To convey information, use:

* instructor or guest lecture/interviews
* field trips
* discussion groups
* interviewing experts
* selected readings
* case studies
* demonstration by experts

To provide balanced presentation of a controversial subject, use:

* discussion groups
* panel discussions
* selected readings
* simulations
* debates

To involve people, use:

* discussions
* written work
* field trips
* case studies
* role playing
* group work
* guided experience

To teach a skill, use:

* demonstrations
* shopwork
* labs
* guided experience
* practice with feedback (coaching)

To pool thoughts and ideas, use:

* discussions
* brainstorming
* group work

To reinforce memory, use:

* drill
* memory aids
* practice with feedback (coaching)
* written work Resources you can use

If you need help with any of the steps in your lesson plan, you can use one of the following instructional development job aids:

* Increasing Student Motivation
* Managing Student Behaviour
* Making Large Lectures Interactive
* Preparing and Using Student Handouts
* Designing and Using Visuals

Also, colleagues in your own department may have suggestions to help you to develop lesson plans that are well suited to your subject matter and students. The following page contains one type of template that is helpful for planning lessons. Adapt it to your own needs. It is followed by a one-hour example of a filled-out lesson plan of the same type.

<https://www.bcit.ca/files/ltc/pdf/ja_lessonplans.pdf>

**About Effective Lesson Planning**

Planning ahead to identify a course of action that can effectively reach goals and objectives is an important first step in any process, and education is no exception. In education, the planning tool is the lesson plan, which is a detailed description of an instructor’s course of instruction for an individual lesson intended to help learners achieve a particular learning objective. Lesson plans communicate to learners what they will learn and how they will be assessed, and they help instructors organize content, materials, time, instructional strategies, and assistance in the classroom. Lesson planning helps English as a second language (ESL), adult basic education (ABE), adult secondary education (ASE), and other instructors create a smooth instructional flow and scaffold instruction for learners.

* The Lesson Planning Process

Before the actual delivery of a lesson, instructors engage in a planning process. During this process, they determine the lesson topic (if states have implemented content standards, the topic should derive from them). From the topic, derive the lesson objective or desired results—the concepts and ideas that learners are expected to develop and the specific knowledge and skills that learners are expected to acquire and use at the end of the lesson. Objectives are critical to effective instruction because they help instructors plan the instructional strategies and activities they will use, including the materials and resources to support learning. It is essential that the objective be clear and describe the intended learning outcome. Objectives can communicate to learners what is expected of them—but only if they are shared with learnersin an accessible manner. Instructional objectives must be specific, outcome-based, and measurable, and they must describe learner behavior. Heinich, Molenda, Russell, and Smaldino (2001) refer to the ABCD’s of writing objectives:

* Audience – learners for whom the objective is written (e.g., ESL, ABE, GED) Behavior
* the verb that describes what the audience will be able to do (e.g., describe, explain, locate, synthesize, argue, communicate)
* Condition – the circumstances under which the audience will perform the behavior (e.g., when a learner obtains medicine from the pharmacy, he or she will be able to read the dosage)
* Degree – acceptable performance of the behavior (i.e., how well the learner performs the behavior) Learner assessment follows from the objectives.

Based on the principles of backward design developed by Wiggins and McTighe (1998), instructors identify the lesson objective or desired results and then decide what they will accept as evidence of learners’ knowledge and skills. The concept of backward design holds that the instructor must begin with the end in mind (i.e., what the student should be able to know, understand, or do) and then map backward from the desired result to the current time and the students’ current ability/skill levels to determine the best way to reach the performance goal.

* **The WIPPEA Model for Lesson Planning**

The WIPPEA Model, an acronym that stands for Warm-up, Introduction, Presentation, Practice, Evaluation, Application, is a lesson plan model that represents a continuous teaching cycle in which each learning concept builds on the previous one, serving as an instructional roadmap for instructors. The WIPPEA lesson plan model is adapted from the work of Hunter (Hunter, 1982). This six-step cyclical lesson planning approach has learners demonstrate mastery of concepts and content at each step before the instructor proceeds to the next step. In the following list, TEAL Center suggestions for incorporating each of these elements are included in italics.

* Warm-up – Assesses prior knowledge by reviewing previous materials relevant to the current lesson. Introduce an activity that reviews previously learned content (e.g., for a vocabulary lesson, the warm-up may be a quick matching exercise with words previously learned and their definitions), and also include an activity that focuses on the topic to be taught.
* Introduction – Provides a broad overview of the content and concepts to be taught and focuses the learners’ attention on the new lesson. Introduce the purpose of the lesson by stating and writing the objectives for learners and discussing the lesson content and benefits by relating the objective to learners’ own lives. Assess learners’ prior knowledge of the new material by asking questions and writing learners’ responses on a chalkboard or flip chart.
* Presentation – Teaches the lesson content and concepts. Create an activity to introduce the concept or skill (e.g., introduce new vocabulary by asking learners to work in groups to identify words related to taking medications) and then introduce information through a variety of modalities using visuals, realia, description, explanation, and written text. Check for learner understanding of the new material and make changes in lesson procedures if necessary.
* Practice – Models the skills and provides opportunities for guided practice. Introduce a variety of activities that allow learners to work in groups, in pairs, or independently to practice the skills, concepts, and information presented. Integrate technology into activities as available.
* Evaluation – Assesses each learner’s attainment of the objective. Include oral, aural, written, or applied performance assessments. For example, ask learners to fill in the blanks on a cloze activity using the four medicine warning labels that were discussed in class. For lower level learners, provide a word bank at the bottom of the worksheet. Omit the word bank for more advanced students.
* Application – Provides activities that help learners apply their learning to new situations or contexts beyond the lesson and connect it to their own lives. Choose activities that learners can relate to or have expressed concern about. For example, have learners read the label of a medication they or a family member may use at home to make certain they understand the meaning of the words on the label. Gather feedback from learners in follow-up classes and help them assess what additional support, if any, they may require.

The following graphic integrates the WIPPEA process with backward design in a lesson planning wheel. In this cyclical approach, teachers assess prior knowledge, provide a broad overview of the content/concepts to be taught, introduce vocabulary, teach content/concepts, check comprehension, combine the content and vocabulary through guided practice, evaluate student performance, and provide an application activity. Instructional strategies vary depending on the lesson content and skill areas and the needs of the learners. Figure 1. Planning Wheel Planning for differentiated instruction requires various learner profiles to inform the process (See TEAL Center Fact Sheet No. 5. on Differentiated Instruction. Students demonstrate mastery of concepts/content in each step before the teacher proceeds to the next step. The relationship of the objective to the evaluation keeps the lesson focused and drives instruction. By keeping the end in mind (backward design) and creating the evaluation activity at the beginning of the lesson, the teacher has a clear destination for the lesson and a roadmap to get there. Instructors can then select materials and activities that will best prepare students to successfully complete the evaluation activity in the lesson. The process is repeated for each learning objective. Lesson planning is an ongoing process in which instruction flows from one objective to the next. This cyclical process is repeated for each learning objective.

* How Does Lesson Planning Benefit Learners and Instructors?

Instructors and learners benefit from thoughtful lesson planning. It provides a framework for instruction, and it guides implementation of standards-based education. Lesson planning establishes a road map for instructors of what has been taught and what needs to be taught. It allows them to focus on one objective at a time and communicate to learners what they will learn in each lesson. Because lessons incorporate ongoing assessments that determine how well learners understand concepts and skills, instructors are able to make mid-course changes in instructional procedures or provide additional support to learners. Additionally, the practice and application components of the lesson help learners use the new skills and knowledge in educational and other settings, thus promoting generalization and relevance.

<http://www.cusoeprofessionaleducation.org/uploads/2/9/5/8/29585257/tealeffectivelessonplanning.pdf>

* **Approaches of lesson planning**

The process of lesson planning can be approached in several ways. Forward, central, and backward design are approaches to curriculum development that are also applicable to lesson planning. Universal Design for Learning intends to address individual differences in learners and to remove barriers to their learning. Forward, Central, and Backward Design Forward, central, and backward design refer to the starting point of the planning process and how the process develops. With a forward design process, the teacher begins by identifying the linguistic or cultural content to be taught. He or she then decides upon the methods and activities to be used to teach this content and ends with the assessment of learning. For instance, the teacher might see that the syllabus calls for teaching language related to the topic of travel. The teacher decides to use pictures to present travel-related vocabulary and have students practice travel-related dialogues from their textbook. The assessment, which is an end-of-semester exam, requires students to match vocabulary words and definitions and to fill in the blanks in a travel-themed paragraph. A forward design option may be preferred in circumstances where a mandated curriculum is in place, where teachers have little choice over what and how to teach, where teachers rely mainly on textbooks and commercial materials rather than teacher-designed resources, where class size is large and where tests and assessments are designed centrally rather than by individual teachers. (Richards, 2013, p. 29)

<http://www.tesol.org/docs/default-source/books/14002_lesson-planning_ch-1.pdf?sfvrsn=2>

* **Need for lesson planning**

Lesson planning is at the heart of being an effective teacher. It is a creative process that allows us to synthesize our understanding of second language acquisition and language teaching pedagogy with our knowledge of our learners, the curriculum, and the teaching context. It is a time when we envision the learning we want to occur and analyze how all the pieces of the learning experience should fit together to make that vision a classroom reality. There are a number of benefits to writing a lesson plan. First, lesson planning produces more unified lessons ( Jensen, 2001). It gives teachers the opportunity to think deliberately about their choice of lesson objectives, the types of activities that will meet these objectives, the sequence of those activities, the materials needed, how long each activity might take, and how students should be grouped. Teachers can reflect on the links between one activity and the next, the relationship between the current lesson and any past or future lessons, and the correlation between learning activities and assessment practices. Because the teacher has considered these connections and can now make the connections explicit to learners, the lesson will be more meaningful to them. The lesson planning process allows teachers to evaluate their own knowledge with regards to the content to be taught (Reed & Michaud, 2010). If a teacher has to teach, for example, a complex grammatical structure and is not sure of the rules, the teacher would become aware of this during lesson planning and can take steps to acquire the necessary information. Similarly, if a teacher is not sure how to pronounce a The

* Importance of Planning

Lesson Planning new vocabulary word, this can be remedied during the lesson planning process. The opportunity that lesson planning presents to evaluate one’s own knowledge is particularly advantageous for teachers of English for specific purposes, because these teachers have to be not only language experts, but also familiar with different disciplines like business, engineering, or law—fields that use language in specialized ways. A teacher with a plan, then, is a more confident teacher ( Jensen, 2001). The teacher is clear on what needs to be done, how, and when. The lesson will tend to flow more smoothly because all the information has been gathered and the details have been decided upon beforehand. The teacher will not waste class time flipping through the textbook, thinking of what to do next, or running to make photocopies. The teacher’s confidence will inspire more respect from the learners, thereby reducing discipline problems and helping the learners to feel more relaxed and open to learning. Some teachers feel that lesson planning takes too much time. Yet lesson plans can be used again, in whole or in part, in other lessons months or years in the future ( Jensen, 2001). Many teachers keep files of previous lessons they have taught, which they then draw on to facilitate planning for their current classes. In other words, lesson planning now can save time later. Lesson plans can be useful for other people as well ( Jensen, 2001). Substitute teachers face the challenge of teaching another teacher’s class and appreciate receiving a detailed lesson plan to follow. Knowing that the substitute is following the plan also gives the regular classroom teacher confidence that the class time is being used productively in his or her absence. In addition, lesson plans can also document for administrators the instruction that is occurring. If a supervisor wants to know what was done in class two weeks ago, the teacher only has to refer to that day’s lesson plan. Finally, lesson plans can serve as evidence of a teacher’s professional performance. Teachers are sometimes asked to include lesson plans, along with other materials, as part of a portfolio to support their annual performance evaluation. Teachers applying for new jobs might be asked to submit lesson plans as part of their job application so that employers can get a sense of their organizational skills and teaching style.

<http://www.tesol.org/docs/default-source/books/14002_lesson-planning_ch-1.pdf?sfvrsn=2>

**4.4 Types of lesson planning**

The basics of early childhood education are to respect the life of a child and to promote his/her voluntary activities. However, respecting children’s voluntariness does not mean to leave them to play as they like. Teachers should care for children within the objectives and perspectives of education. The curriculum is a holistic educational plan which is formulated with the intention of achieving specific aims throughout a child’s life at kindergarten. On the other hand, as is stated below, instruction plans are formulated more concretely in order to achieve the aims stipulated in the curriculum. They show ‘when’ and ‘what kind of activities’ children do with the aim of promoting their development and active life. Try hard to understand about children, and especially recognize their interests, attitudes toward their life or play, and relationships with teachers and other children. And so instruction plans should be formulated so that children can have experiences appropriate for their age or development stage. Teachers formulate instruction plans by setting objectives and curriculum content so that the curriculum is put into practice, creating an environment that enables children to achieve the objectives and curriculum content and making sure that teachers’ support leads the activities in a favorable direction.

Instruction Plans: Long-Term Plans & Short-Term Plans

There are two types of instruction plans

* long-term instruction plans: yearly and monthly plans
* short-term instruction plans: weekly and daily plans.

Teachers think about and write down the following three aspects, in the form appropriate for the characteristics of each plan:

* Contents of activities: what you hope children will experience.
* Objectives of curriculum content: aspects expected to be developed through the activities.
* Creation of the environment: how to provide an appropriate environment to achieve the objectives of curriculum content.

It should be remembered that instruction plans are merely ‘plans’. If teachers stick to those plans but the education has little to do with the realities of the children’s lives, they cannot promote proper development. It is important for teachers to be sensitive to the changes in children’s interests, attitudes towards their life or play, relationships with teachers or other children, or changes of weather/temperature and then flexibly modify or change plans.

* **Points for Consideration: Formulation of Long-Term/Short-Term Instruction Plans**

1. Understanding of the Child and Child Development

It is firstly crucial to understand the child – who must be the focus of early childhood education. Try to understand each child by knowing about such aspects as family background, the present development level, his/her interests, the attitude towards life or play and relationship with teachers or other children and so on. One way to achieve this understanding is to learn about the ‘average child’ during early childhood, from the perspective of developmental/children’s psychology. In other words, you understand the nature of the ‘future child’, based on the academic knowledge. The other aspect is more practical - to recognize child development by closely looking at the state of each child. Even in the same class with children at the same age, each has his/her own pace of development, which should be fully respected. In short, try to see and understand the real state of each child.

1. Aims and Curriculum content

The ‘aims’ of kindergarten education are to nurture the emotions, will and attitudes that are expected to be developed by the time children leave kindergarten. The ‘curriculum content’ is developed with the intention of achieving the aims. It should be remembered that not only activities themselves but also psychological aspects such as a sense of achievement, satisfaction or fulfillment that children can feel through the activities are included in the ‘curriculum content’.

1. Creation of an Appropriate Environment

After making ‘aims’ and ‘curriculum content’ clear, think about how to create an appropriate environment to achieve those aims. Children live and develop through their interaction with the surrounding environment. Key factors of an appropriate environment for early childhood education are ‘free from danger’, ‘appropriate for their development level’, ‘meeting the interests and curiosity of children’ and ‘stimulating children to try tasks that teachers want them achieve’. Teachers try to create an environment that encourages children to voluntarily get involved in their surroundings by combining the factors mentioned above.

* Daily, Weekly and Yearly Plans

Points for Consideration: Formulation of Long-Term Instruction Plans

1. Yearly Plan

The yearly plan is formulated thinking about a year of a child’s life in relation to the curriculum of a school. When formulating the plan, you firstly have to know about the children. Thinking about the number of children, the ratio of boys and girls, and age difference in your class helps you grasp their interests and curiosity. Secondly, you have to think deeply how to place annual events that mark the stages of their lives at kindergarten. It is important to formulate a yearly plan which ensures that the children do not to feel overwhelmed. In addition, the changes of the seasons should be taken into consideration. A plan should encourage children to notice the changes of the seasons, and to develop their emotions through close contact with nature and the seasons.

1. Monthly Plan

Teachers have to make a detailed monthly plan based on the yearly instruction plan. The monthly plan is formulated giving consideration to the season, events in the month, children’s developmental stage and so on.

Points for Consideration: Formulation of Short-Term Instruction Plans

1. Weekly Plan

The weekly instruction plan is formulated in order to put the monthly plan into practice. In formulating it, consideration should be given to the continuity of life of the children, because we generally spend our daily life on a weekly basis. And so the weekly plan is very concrete and practical.

1. Daily Plan

The basic unit of a child’s life is a day. Teachers formulate a daily plan thinking about children’s activities, the creation of a good environment and how to support them, hoping that they can spend a full and enjoyable life at kindergarten. This is the most practical and concrete instruction plan, which shows a day of children at kindergarten in detail. There is no standardized format for the instruction plan. Although some kindergartens use a standardized format among teachers, it is basically a teacher who is responsible for working out and formulating it. Some experienced teachers who can easily think about various important aspects formulate a ‘weekly and daily plan’ that literally combines a ‘weekly plan’ with a ‘daily plan’.

Tips and Suggestions:

There is no formula for the creation of an environment or the preparation of materials/activities in order to achieve objectives. Think from various viewpoints and formulate a fully worked-out plan making full use of the available environment and materials.

* Children’s activities do not always turn out as you have planned. As time goes by and as children experience various things, they develop and change progressively. It is important to observe the children carefully and improve the plan according to their development.
* Activities that are familiar to children encourage their voluntary and active involvement. Think about the activities that are closely linked to their daily life, and the best way to support them.
* Respect the culture, nature and tradition in your country or in the region where you live, and try to integrate these into the instruction plan, which will then be very attractive to children.

<http://www.ocha.ac.jp/intl/cwed_old/eccd/report/hand_E/2-3e.pdf>

**4.6 How Scheme of Studies be formulated weekly**

A scheme of work is “a plan for something”. A teacher’s scheme of work is therefore his plan of action which should enable him/her to organise teaching activities ahead of time. It is a summarised forecast of work which the teacher considers adequate and appropriate for the class to cover within a given period from those topics which are already set in the syllabus.

well prepared scheme of work should among other things:-

* Give an overview of the total course content.
* Provide for a sequential listing of learning tasks.
* Show a relationship between content and support materials.
* Provide a basis for: long range planning, training and evaluation of the course.

A scheme of work can be made to cover one week, one month, one term or even one year, depending on the duration of a given programme. Most programmes in our educational institutions take between one and four years. Each year is divided into 3 terms with each term lasting 3 months or 13 weeks. In such a case a scheme of work should be made for each term (13 weeks). Ideally schemes of work should be prepared before classes begin.

**Some important considerations to be born in mind when preparing a scheme of work:**

* **Understanding the syllabus:**

The classroom teacher may not necessarily be involved in the initial stages of curriculum development, but (s)he is expected to interpret the curriculum and implement it correctly. This calls for a thorough understanding of the syllabus and the content, in order to achieve the stated objectives. The teacher is expected to act like a policeman or a judge who is called upon to administer the law though he did not make it. It is therefore very important that the teacher be thoroughly conversant with the curriculum in order to implement it successfully.

* **Preceding and succeeding syllabus content**

In most cases topics from the syllabus may not be arranged in the order in which they are supposed to be taught. Some topics will require the knowledge of the previous ones while others are quite independent. The teacher should not only identify the essential learning content but also arrange the content in logical teaching order considering the proceeding and succeeding syllabus content.

* **Syllabus contents of related subject:**

The mistake which many teachers make is to scheme for their subject without considering the contents of related subjects. This is very wrong and should be highly discouraged. Quite often the teaching of a given topic, in a given subject may be impeded by lack of skills or knowledge to be acquired in a different subject.

* **Existing scheme of work for the subject**

If a scheme of work is already available for the subject, it would be a waste of effort and time for the teacher to break new ground again. In this case, the teacher can revise the existing scheme to suit his/her students and to bring it up to date.

* **Reference material and examination**

The teacher should be familiar with reference material that is available for effective coverage of the topics in the scheme of work. There is nothing more disturbing than finding out that a topic that is already covered could have been more interesting, enjoyable and even better understood if certain materials or teaching aids that are available in school had been utilised. The type of examination the students are being prepared for should bear in mind that some levels require more revision time than others and therefore, scheme for revision appropriately.

* **Time estimation**

Although there are 13 weeks in one term, it is not usually possible to use all these for effective teaching for a variety of reasons. For purposes of determining how much material can be covered in any given time, it would be misleading to assume that a subject requiring 9 periods per week has 6 x 13 periods available for teaching. The number of effective teaching periods varies according to both predictable and unpredictable interruptions. Effective teaching time must therefore be estimated before topics are selected. The most common interruptions that are likely to disrupt a scheme of work include:

* Public Holidays
* Examinations (should be schemed for) if they are internal
* Revisions (should be schemed for)
* Open days
* Sports days
* Planned school breaks e.g. mid-term break e.t.c.

The teacher/instructor should check with the administration of the school or Youth Polytechnic dates for such events before scheming. Although the new syllabuses under the 8-4-4 framework give time estimation for each topic, these should be taken as guidelines only. Finer adjustments need to be made depending on the time available for teaching.

**Components of a scheme of work**

* **Organisation:**

Refers to the organisation/institution one is working or training in.

* **Trainees level:**

Part 1 refers to the grade level in training e.g. technician. In case of colleges and other institutions, some means of identification are used e.g. K.T.T.C. contribution Tech. part 1.

* **Subject:**

This refers to the subject being schemed which may be theory or practical. This refers to a particular term within a given year. Years may vary from organisation to organisation depending on time of entry.

* **Date of preparation**

Refers to the time the scheme of work is completed. This should be before instruction commences.

* **Date of revision**

Due to overlapping or under planning experienced during instruction or unforeseen interruptions, it is necessary to revise the scheme of work in order to accommodate the unexpected difficulties. This date should be indicated in the space provided in the form.

* **Syllabus topic**

The topics in the syllabus needs to be rearranged in the order in which they are supposed to be taught. This is because some topics are build up e.g. Before one learns to multiply he should have done additions, e.t.c. The syllabus topics should then follow that order.

* **Week**

Most organisations are specific in time allocation and each week should be spelt out in the week column. The numeral representing the week should be distinctly written centrally in the week column.

Weeks should be separated by a line running across the page especially when the same scheme of work form contains more than one week.

* **Number of periods**

The subject may have one, two or more periods in one week. Some periods may be single, double or triple. Numbering of the period can take the form either ordinal or cardinal system. Ordinal systems refers to the order in which periods for that subject appear on the timetable. In either system, numbering should be done as reflected on the time table for that subject. A line, beginning from the column of periods should be drawn straight across the page to separate the periods. When two spaced periods are indicated on the timetable in the same day, then there should be two distinct rows for two periods. The numbering process should be repeated for the other weeks.

* **Sub-topic: lesson titles**

This should be clear and definite. The instructor should single out all the sub-topics/lesson titles in a particular syllabus topic. He should then estimate what sub topics/lesson titles will require a single period, double period or triple period, and then scheme accordingly.

* **Objectives**

Each sub-topic/lesson title should be followed by an objective(s) which is meant to pinpoint the anticipated learning behaviour of the learners. The specific nature of the sub-topic/lesson titles does not permit broad objectives which might not be realised by the end of that period. The objectives must be stated in such a manner that there is a measurable aspect manifested by the end of the lesson e.g. The lesson title***simple*** ***interest*** might have the objective - “students should be able to calculate simple interest on given principals using methods of (a) direct production, and (b) simple interest formula”. The lesson title conduction of***heat in metals*** might have the objective - “trainees will be able to classify good and bad conductors of heat after carrying out the experiment, described in the worksheet 4”, e.t.c.

* **Key points/methods**

These are the central ideas which the teacher anticipated to use during the lesson. They are an elaboration of the sub-topic/lesson title. They form the backbone of the lesson. Keypoints should be stated in a specific, precise manner, preferably in form of phrases which conveys the full meaning intended.

Under no circumstances should key points be stated as activities or active in sense.

* **Application**

**(Student activities, assignment, homework, practice).**

For any concept learnt, the teacher would like to see his/her learners put it to practical use. In this column the teacher should think of specific activities that the learners will perform while in the class and Nos. 11, 12, 18 for homework, students will answer comprehension questions after reading the passage on page 35 or their class text book e.t.c. Applications must be designed in order to realise and consolidate concretely the objectives of the lesson.

**(Tools Equipment, Apparatus, Chalk Board, Chart e.t.c.)**

Resource materials for specific content coverage used in scheming are necessary and should be noted down with their relevant pages for ease in reference during lesson planning. References include books, handouts, worksheets, journals, reports, etc. It is necessary for the teacher to indicate the books, their authors and relevant pages. Teaching aids are an integral part of an effective lesson. Aids that the teacher intends to use should be indicated in the scheme of work. Teaching aids are usually in the form of apparatus, equipment, materials and of course the real thing if readily available and appropriate. The teacher should not indicate a teaching aid which will not be available in class.

* **Notes**

Most student teachers forget to include teaching aids in the scheme of work.

* **Remarks**: **date when taught**

Remarks in the scheme of work should be made immediately the lesson is over. The teacher is supposed to indicate whether what was planned for the period has been covered, whether there was over planning or failure of lesson and reasons for either case, e.t.c. remarks suggested are meant to help the teacher in his consequent and future planning.

Remarks such as “excellent” “done”, “OK”, “well done”, “satisfactory”, “taught”, etc. might not be very useful to the teacher. Such remarks as “the lesson was not very well done because of inadequate teaching aids”, or “pupils were able to apply concept learnt in solving problems as evident from supervised practice”, e.t.c. are appropriate. After the remarks, it is necessary to write the date when this lesson was taught.

**A Sample Frame for a scheme of work**

Subject: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Year \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Term \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Instructor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date of preparation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date of revision: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| week | Lesson | Unit/period | topic | Specific objectives | content | methods | Learners activities | Teaching learning aids | Reference | Remarks |
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<http://www.nzdl.org/gsdlmod?e=d-00000-00---off-0fnl2%2E2--00-0----0-10-0---0---0direct-10---4-------0-1l--11-en-50---20-about---00-0-1-00-0--4----0-0-11-10-0utfZz-8-00&cl=CL2.6&d=HASH931fe16befd87926191fd4.7.10.1&x=1>

**Unit 05: Instructional Technologies**

5.1 Definitions, concept and nature of teaching aids

5.2 Instructional technology and its importance

5.3 Selection and use of appropriate teaching aids

5.4Types/kinds of educational technology

5.4.1 Electronic (Radio, TV, Projectors and Computers)

5.4.2 Non electronic (Boards, Charts, Models, Posters, etc.)

5.4.3 Print (Books, Journals, Newspapers and Magazines etc.)

5.4.4 Social media (Facebook, Tweeter etc.)

**Unit 05: Instructional Technologies**

* **Definition of instructional technologies:**

Since its establishment in 1923, the Association for Educational Communications and Technology (AECT) has been the leader in the field of Instructional Technology. As the leading organization, the AECT has defined and redefined the field over the years to respond to the changes in emerging technologies, theories and functions of instructional technology professionals in the field. The most recent definition of Instructional Technology published by the AECT in the book “Instructional technology: the definition and domains of the field” by Seels & Richey (1994).According to this definition “Instructional Technology is the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning.”(Seels & Richie, 1994, p. 1).This definition was officially adopted as the organization’s and the field’s political stance until recently when, technology, theory, and practice has once again changed the field and the way professionals in the field function in the workplace. AECT has been working on redefining the field to reflect recent changes in the field. In January 2008, the AECT’s efforts resulted in approval of a new definition for the field. The new definition indicates that “Educational Technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources.” (Januszewski & Molenda, 2008, p.2). While the new definition builds on the definition proposed in 1994, several changes can be observed. Analyzing these changes in the definition of the field will help understand how the field is now perceived by professionals. The following paragraphs attempts to explore the similarities and differences between 1994 and 2008 definitions. There are a number of common themes in the 2008 definition and the 1994 definition. These themes include: the emphasis on theory and practice; focus on use of theories and models, and importance of resources. In addition, although it appears that the new definition does not include the domains of the field (design, development, utilization, management, and evaluation), they are embedded in the meaning of the concepts of “creating, using, and managing” (Richey, Silber, & Ely, 2008). Thus, one may conclude that by incorporating the words create, use, and manage, in lieu of design, development, utilization, management, and evaluation, the definition of the field is broadened to incorporate alternative approaches other than the Instructional Systems Approach (ISD) (Richey, Silber, & Ely, 2008). With both the 1994 and the 2008 definition, there is still an emphasis on the blend of theory and practice. This theme was emphasized in 1994 by using the term “theory” and in the 2008 definition with the word “study”. Also, both definitions emphasize resources for learning. In spite of the similarities, there are major differences in the 1994 and 2008 definitions. These differences include: the replacement of “instructional” with “educational, the emphasis on improving performance, and the inclusion of “facilitating learning”.

First, the AECT has replaced the term “Instructional” with “Educational”. Professionals in the field have used the terms “Educational” and “Instructional” interchangeably throughout the years. Educational technology often referred to a wide range of systems in the process of human development. Instructional technology, on the other hand, was used to specifically point to the processes and systems of learning and instruction (Gentry, 1987). Using the broad concept of educational technology as its framework, the current definition of the field is referring to a change in the professionals’ perspective with regard to human development. This change could also be due to the fact that the emergence of the new technology has broadened the concept of human development and expanded the concept of instruction to include management of technological resources (Richey, Silber, & Ely, 2008).

Second, by including “improving performance” in the latest definition, the emphasis is no longer placed on learning solutions or knowledge but on the impact the products or knowledge have on an individual or organization. Furthermore, while an instructional technologist analyzes the performance problem experienced in a situation to propose a learning solution, the analysis may suggest that learning is not the proper solution to solve the performance problem. For example, a non-instructional solution may be changing the lighting in an office atmosphere to decrease the glare on the computer screens and therefore, improving performance. The term “improving performance” in the 2008 definition deemphasizes the creation of learning solutions or products for all performance problems. In other words, the Instructional Technologist’s objective is to increase the productivity of an organization or personnel. The emphasis on performance creates a bridge between Instructional Technology and Human Performance Technology (HPT) (Richey, Silber, & Ely, 2008). As Kenneth Silber stated “. . . it finally clarifies the relationship of ET [Educational Technology] to HPT in a way that will promote dialogue and cooperation between the two highly related fields.” (2008, p. 25).

Finally, the 2008 definition includes “facilitating learning”. Januszewski & Molenda (2008) contend that this inclusion implies a shift in the concept of instruction. The term “facilitating learning” clarifies the role of the instructional designer as a facilitator of learning rather than a preparer of products for learning. Given this emphasis, the instruction is learner-centered and situational. With the use of context based instruction, the learner is able to construct his/her knowledge based on prior experiences or through peer collaboration. This can be done through a variety of delivery systems such as computer-based instruction, web-enhanced environments, or face to face instruction. By creating the learning environments an Instructional Technologist guides the learner rather than providing direct instruction (Richey, Silber, & Ely, 2008). In sum, by incorporating the term “Educational” instead of “Instructional”, the definition has broadened the scope of the field. Although the domains are no longer mentioned by name, the use of “create, manage, and use” encompass the systematic activities of the former domains. Finally, the definition still holds true to the systematic process but now is allowing for a variety of mindsets and Instructional Systems Design models.

<http://arcmit01.uncw.edu/andersonl/Documents/Definition%20of%20Instructional%20Technology.pdf>

**5.1 Definitions, concept and nature of teaching aids and instructional/educational technology**

* **Meaning:**

The term educational technology is often associated with, and encompasses, instructional theory and learning theory. While instructional technology covers the processes and systems of learning and instruction, educational technology includes other systems used in the process of developing human capability. Educational Technology includes, but is not limited to, software, hardware, as well as Internet applications and activities. Educational technology is most simply and comfortably defined as an array of tools that might prove helpful in advancing student learning. Educational Technology relies on a broad definition of the word “technology”. Technology can refer to material objects of use to humanity, such as machines or hardware, but it can also encompass broader themes, including systems, methods of organization, and techniques. Some modern tools include but are not limited to overhead projectors, laptop computers, and calculators. Newer tools such as “smart phones” and games (both online and offline) are beginning to draw serious attention for their learning potential. Those who employ educational technologies to explore ideas and communicate meaning are learners or teachers.

According to the Handbook of Human Performance Technology, the word technology for the sister fields of Educational and Human Performance Technology means “applied science.” In other words, any valid and reliable process or procedure that is derived from basic research using the “scientific method” is considered a “technology.” Educational Technology may be based purely on algorithmic or heuristic processes, but neither necessarily implies physical technology. The word technology comes from the Greek “techne” which means craft or art. Another word, “technique,” with the same origin, also may be used when considering the field Educational Technology. So Educational Technology may be extended to include the techniques of the educator.

* **Nature**

The movement towards educational technology began to develop after World War II. Initially the term meant using audiovisual communications media. However, the field of educational technology began to focus on the development of teaching and learning procedures borrowed from behavioural psychology. Today, the field also incorporates cognitive psychology, social psychology, psychometrics, perception psychology and management. Educational technology has under its preview the following aspects:

* Design of instruction
* Production of instructional products and services
* Management of instruction
* Evaluation of instruction

Educational technology reforms education by contributing to:

* Student learning through involvement with challenging tasks.
* Professionalisation of teachers
* Creation of a culture that supports learning both in the classroom and beyond it.
* Redefining the roles of teachers and learners.

Educational technology is often considered to be the intermix of two aspects namely, technology of education and technology in education. Technology of education symbolizes a technological approach to education. It is the application of psychology of learning theories, principles of instruction, curriculum and learning to the process of education. In this educationists are involved in the design and evaluation of systems of learning, involving an understanding of the psychology of learning and of communication and information theory to be used to establish a rationale for good teaching. It facilitates a teacher to use a variety of media and modes to make his teaching effective.

Technology in education is the application of technology to any process of the educational enterprise. It refers to the use of the technological advancement in terms of various equipment, materials and machines for educational purposes. It involves the increasingly complex range of audio-visual equipment and sophisticated electronic devices like computers LCD projectors and so on for teaching and learning.

* **Scope and Significance:**

Educational technology aims to improve the quality of human learning. It is the field involved in applying a complex integrated process to analyze and to solve problems in human learning. The scope of educational technology is unlimited as it tries to reach out to more and more people involved in the teaching-learning process. The scope of educational technology is as follows:

* Spelling out the Educational Goals and objectives
* Curriculum Development
* Developing teaching – learning materials and resources
* Developing human resources
* Developing tactics and strategies
* Developing multi-sensory aids
* Feedback mechanism and modification
* Develops passive instruction services
* Develops interactive instruction services
* Develops learning environment
* Develops information resources
* Develops communication devices

The aforesaid points are only indicative and are not exhaustive in nature. Moreover they emphasize the significance of educational technology, too.

* **Components of Educational Technology**

The important and fundamental components of educational technology are a) Hardware and b) software.

* + Hardware:

It is nothing but all the components or the mechanical materials and equipment. It includes all types of projectors, boards of different kinds, writing materials of different types and so on. In general, all the physical components or aspects are coming under this heading. The use of these said materials in education or in teaching and learning process is known as hardware approach. This approach has its origin in physical sciences and engineering and is based on the concept of service. In otherwords, this approach is the byproduct of the scientific and technological developments of this century.

* + Software:

It includes all programmes, principles, rules, text and so on useful for teaching and learning process. For example, a video clip is software and the disk containing the clip is hardware. The use of the principles and the psychology of learning is known as software approach. This approach owes its origin to the behavioural sciences and their applied aspects concerned with psychology of learning. It is directly related to the psychology of learning, which comprises behavioural changes resulting from experiences.

* **Educational Technology and Instructional Technology**

The NCERT defines educational technology “as the means of development, application and evaluation of three different things namely techniques, System and aids to improve the process of human learning”. The International Commission on the Development of Education defined educational technology as, “the intellectual and operational efforts to rearrange, to regroup or to systematize applications of scientific methods for the organization of (scientific method) equipment and material to optimize the learning process.” In education, Instructional technology is “the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning,” according to the Association for Educational Communications and Technology (AECT) Definitions and Terminology Committee. Instructional technology is often referred to as a part of educational technology. While instructional technology covers the processes and systems of learning and instruction, educational technology includes other systems used in the process of developing human capability. <http://www.sekars.net/med/UNIT-I.pdf>

**5.2 Instructional technology and its importance**

In the 21st century, mentioning technology generally inspires thoughts of advancement, improvement, and progress. On the contrary, the lack of technology stirs feelings towards a practice as antiquated, ineffective, and clumsy. The classroom has not been exempt from this general thinking. Over the past thirty years, instructional technology is being integrated into the classroom at alarming rates. As fast as integration has been, the development of new technologies has even been faster. The literature in the area of instructional technology is vast and sometimes overwhelming. Often times, articles will focus on how to integrate technology into the classroom and the recommendation of new technologies. A significant amount of research on instructional technology is associated with faculty competency and teaching effectiveness. In evaluating the use of any teaching style, educators will often use Benjamin Bloom’s Taxonomy as a beginning point of planning. Certain principles of human cognitive learning are well-established to be used by educators wanting to teach in ways most likely to produce learning. Three of these principles according to Joseph Lowman are that “It is better for college students to be active seekers than passive recipients of learning; For students to be fully engaged in learning, their attention must be focused on the material;” and “Students learn images as well as words, and images are more easily remembered, especially if the images are vivid and emotionally tinged.” All three of these principles touch upon the use of technology in the classroom. Using these principles, instructors have sought technological means to increase learning.

Early literature in this area first looked at whether any technology in the classroom was beneficial. Despite this early argument on whether technology in the classroom is good or bad, technological advancements occurred and students demanded use in the classroom. Between grades 6 and 12, ninety percent of students have been found to use computers on a daily basis according to the Geneva Logic Report. Recent trends in literature on technology in the classroom focus more on teacher effectiveness and proficiency in using technology. Since the 1920s, film, radio, television, and microcomputers began to be used as teaching tools. These first cousins to modern technology reveal the insistent quest by educators for increased productivity and efficiency in teaching. However, this quest does not often originate, according to Larry Cuban, with the picture of how technology has been thrust open teachers, who must be reactive in being forced to implement it. Technology and its evaluation is often the duty of individual instructors, including those that are not in disciplines that would normally utilize technology. For example, how does a teacher in English literature know what technology will be beneficial and if using technology, how to actually make it effective in increasing Lowman’s principles of human cognitive learning. Moreover, it is not technology itself that may be bad, but how it is utilized by teachers.

<http://www.usma.edu/cfe/Literature/Dunmire_10.pdf>

**5.3 Selection and use of appropriate teaching aids**

* **Selection of Technology:**

Not all new technology is good and the adoption of technology because it is new is not a desirable action. A teacher should look at a new technology and ask how it fits in their learning objectives not the other way around where new technology is received and then a teacher tries to 3 fit it into class. For example, Cynthia Lanius stated that she was once told by a teacher that “all our students are getting laptops and now we are desperate to figure out something for them to do on them.” Use of technology in the classroom needs to be a proactive practice by educators. Early articles and research asked whether certain kinds of computer-based activities improved student learning. According to James Kulik, studies did find improvements in student scores on tests related to material covered in computer-assisted instructional packages. But these studies do not help educators understand how technologies might, or might not, help to support cognitive learning and the kind of analysis by students that is desired. Moreover, newer articles continue along this trend. There are several articles on what technologies should be used in the classroom. Often times, these advocate one particular platform, usually the “it” technology. For example, in perusing the articles online by date, there was a movement from computers, to online course management, to now gaming and digital books. See Nagel, David (2010) 6 Technologies That Will Shape Education. These articles also ignore how a specific technology fits into the larger goal of cognitive learning. In order to be effective, innovative and robust technologies must be used to support the desired outcome of teachers.

In a larger sense, a change in an educational environment by the use of new technology must take into account simultaneous changes in curriculum, time and space constraints, and a range of other logistical and social factors (Margaret Honey, Katherine McMillan Culp, and Fred Carrigg). As a result, researchers are increasingly asking questions about how technology is integrated into educational settings; how new electronic resources are interpreted and adapted by their users; how best to match technological capacities with students' learning needs; and how technological change can interact with and support changes in many other parts of the educational process, such as assessment, administration, communication, and curriculum development.

In selecting what technology will be the most useful in achieving individual or department goals, Cynthia Roberts establishes a framework for a change process that can be utilized by educators for the purpose of the selection as well as successful implementation of educational technologies. Her four step process includes strategic analysis, strategy making, strategic plan design, and strategic plan implementation. During the planning and preparation of the use of technology and before moving on the stage of implementation, the following is a list of lessons and advice by Andrew Sackville:

* Do not dismiss the chance to review/ adopt innovations simply because you don’t want to make a fool of yourself
* Spend time thinking. Search for alternative ideas and don’t restrict your search to your own discipline or employment sector. Think outside the box.
* Be skeptical. Do your homework and ask questions – where does the innovation come from? Who stands to benefit from it?
* Find out as much as you can about the idea. Ask the big educational questions. How will it support our students’ learning? How will my colleagues accept the suggestion?
* Work out possible consequences of introducing an innovative teaching practice. Will it be accessible to all students? Will some be disadvantaged if we adopt this teaching method or this technology?
* Identify likely change agents, early adopters – work with them.
* Avoid telling people exactly what to do and how to do it. Instead, describe the end results you are looking for, and ask them to generate their own ideas for how to approach it.
* Challenge staff members to be more innovative by encouraging them to question how things are done.
* Encourage experimentation. When faced with a tough challenge, ask others to brainstorm options or changes that could succeed where current practice fails. Allow them to try new things.
* Be prepared to change your mind. As you evaluate the success or otherwise of your innovation, be prepared to abandon it if necessary.
* **Effectiveness:**

Once technology is selected for implementation, its use can be a necessary evil or a useful tool in the classroom. According to Edward Tufte, “If your words or images are not on point, making them dance in color won’t make them relevant. Audience boredom is usually a content failure, not a decoration failure.” Although selection of a good technology is the first step, use of it by instructors will dictate its effectiveness in the classroom. According to Cynthia Lanius, this aspect of instructional technologies is often overlooked. The reality is that teachers tend to be less technology savvy than the very students that they are teaching. As such, teachers often desire to utilize technology, but lack proficiency in the actual use. Presentations are often botched because the teacher is unfamiliar with the technology. Additionally, teachers may attempt to use, for example, collaborative technology, but because of their lack of proficiency, they do not utilize the benefits of the technology. As such, the process becomes troublesome for the teacher and “more trouble than it’s worth.”

The majority of articles that are against the use of technology in the classroom do not actually focus on the technology, but rather, its effective use of teachers. Microsoft PowerPoint tends to be at the forefront of the literature on this subject. Some say that PowerPoint is a great slide manager, but rather than supplementing a presentation, teachers have mistakenly used it as a substitute for a presentation. In other words, PowerPoint cannot create a good presentation. The teacher uses PowerPoint to create a good presentation. Just like the overhead projector before it, PowerPoint will not turn a bad presentation into a good one, and it will not convert an ineffective presenter into an effective one. If effective use of technology is a problem, how can it be improved? As part of Roberts’ fourth step, strategic plan implementation, educators should be instructed on the capabilities and use of the technology. Teachers should also brainstorm together on how to use the technology themselves and how to utilize it effectively in the classroom. Summary: Complaints on technology in the classroom often focus on using technology merely because it is novel and innovative or the misuse of technology by instructors. These two problems can be overcome with planning and forethought. In selecting technology during the 5 strategic analysis and planning phases, educators need to be proactive and contemplate how the change will positively increase learning. Also, educators must factor into the adoption analysis, the ease of use of the technology. Once adoption of a technology occurs, the desired effect of increased learning can only be achieved if teachers understand the technology and understand how to manipulate it. Through proper selection and training, technology in the classroom can improve student learning and comprehension. <http://www.usma.edu/cfe/Literature/Dunmire_10.pdf>

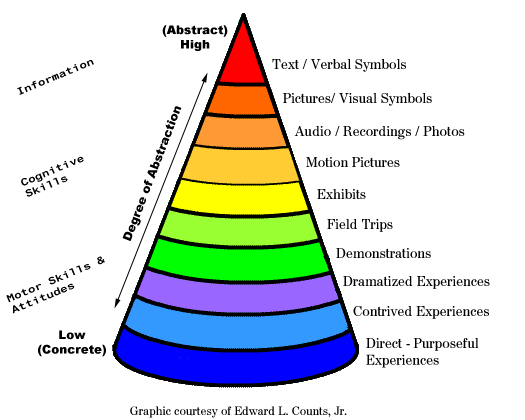
**5.4 Types/kinds of educational technology**

Different types of educational experiences exist - from hands on apprenticeships to role-playing, from demonstrations to reading printed text. Some educators believe that different experiences are more or less effective for achieving different types of instructional outcomes. For example, text with pictures is not as effective as live demonstrations for teaching motor skills. Instructors who are considering the use of media should ask themselves, “How do I expect the media or type of learning activity to make learning more effective?”

* Types of Instructional Media
* Why Use Media in Instruction?
* Media Used to Enhance Presentations
* General Presentation Guidelines
* Instructional Strategies Involving Media
* Resources on the Use of Media

**Types of Instructional Media**

* Real objects and models
* Printed text (books, handouts, worksheets)
* Printed visuals (pictures, photos, drawings, charts, graphs)
* Display boards (chalk, bulletin, multipurpose)
* Interactive whiteboards
* Overhead transparencies
* Slides and filmstrips
* Audio (tape, disc, voice)
* Video and film (tape, disc)
* Television (live)
* Computer software
* The Web



The diagram shows how Edgar Dale’s “Cone of Experience” (1969) - organized learning experiences according to the degree of concreteness each possesses. At the bottom is handson experience. As you ascend the cone, concrete experience begins to drop out, with stimuli becoming more abstract; the stimuli require more skill on the part of the learners to interpret the messages they carry. You can see why lectures, even illustrated lectures, are considered to be some of the most abstract types of presentations. For certain types of learning (such as changing attitudes or teaching motor skills), experiences at the bottom of the cone are more appropriate than those at the top. Learning experiences at the bottom of the cone tend to hold student attention longer and involve active student participation. Media at the top of the cone are said to be more passive but are suitable for transmitting large amounts of informa tion quickly. Which is best depends upon your purposes and circumstances. While the Web is becoming popular for distributing other types of mediated messages, it is not always practical, and other types of media are more appropriate.

* **Why Use Media in Instruction?**

As a rule, educational experiences that involve the learner physically and that give concrete examples are retained longer than abstract experiences such as listening to a lecture. Instructional media help add elements of reality - for instance, including pictures or highly involved computer simulations in a lecture. Media can be used to support one or more of the following instructional activities:

* Gain attention. A picture on the screen, a question on the board, or music playing as students enter the room all serve to get the student’s attention.
* Recall prerequisites. Use media to help students recall what they learned in the last class, so that new material can be attached to and built upon it.
* Present objectives to the learners. Hand out or project the day’s learning objectives.
* Present new content. Not only can media help make new content more memorable, media can also help deliver new content (a text, movie, or video). Support learning through examples and visual elaboration. One of the biggest advantages of media is to bring the world into the classroom when it is not possible to take the student into the world.
* Elicit student response. Present information to students and pose questions to them, getting them involved in answering the questions.
* Provide feedback. Media can be used to provide feedback relating to a test or class exercise.
* Enhance retention and transfer. Pictures enhance retention. Instructional media help students visualize a lesson and transfer abstract concepts into concrete, easier to remember objects.
* Assess performance. Media is an excellent way to pose assessment questions for the class to answer, or students can submit mediated presentations as classroom projects.
* **Media Used to Enhance Presentations**

The Chalkboard or Whiteboard has replaced the ubiquitous chalkboard with whiteboards in most classrooms. The whiteboard is one of the most basic forms of instructional media and is best used for emphasizing essential information and developing ideas as the class progresses.

* Put assignments due, the next assignment and due date, and the day’s lesson objectives on the board before starting the class.
* Use the board to present a problem the class should be thinking about during the lecture.
* Use the board for graphics as well as text and formulas. When Using the Whiteboard
* Include a whiteboard plan in your lesson outline that determines which aspects of the lesson will be illustrated on the board — list of concepts to be learned, timelines, outline for the day’s presentation.
* Bring your own markers to class and carry plenty of spares.
* Use different colored markers to highlight important aspects of the lesson.
* Write neatly and horizontally, making certain your handwriting is large enough for students to read. Board work should be organized so that students will be able to interpret their notes later.
* Write on the board in several places (top, bottom, right side, left side). Go to the back of the room to see if you can read what you have written from any location. Be sensitive to obstructions, including the heads of students, overhead projectors, etc., that may block the lower part of the board.
* Give students time to copy what has been written.
* Avoid modifying the board while students are copying information.
* Talk to the students, not the board. With a little practice, you will find that you can write while you are partially facing the class.
* **Document Cameras**

Document cameras are located in many of the general purpose and technology enhanced classrooms on campus. With a document camera, you can display documents, books, graphics (e.g., pictures, charts, and maps), and three-dimensional objects and project them so even students in the back of the class can see. In most cases, the same rules that apply to the use of the chalkboard also apply to overhead projectors. Overheads, however, have several advantages — transparencies can be prepared in advance of the class, and it is easier to prepare graphics and pictures for the overhead than for the chalkboard.

* **Tips for Using the Document Camera** 
  + The camera is best turned off when you are not directly referring to information on it. Many instructors use a piece of blank paper to cover part of a document so that only the point being developed is revealed.
  + When preparing documents for display on the camera, use san-serif fonts such as Arial, Helvetica, or Tahoma in a 24 pt. or larger font size. Margins should be set at 1 ½ inches to avoid information being cut off the sides. When writing on displayed documents, use a medium to wide stroke marker and print clearly.
  + Avoid using white paper as it produces a glare when projected. Blue paper or other similar pastel is a better choice. Likewise, three-dimensional objects are pro jected more clearly when placed on a darker background rather than on white paper or directly on the camera platform. Practice with different backgrounds to see which works best for you.
  + Glossy paper in magazines and books may not project well because of glare. Practice with the camera settings before class to reduce glare or if possible consider copying the image onto different paper.
  + Avoid the rapid paper flip. Consider placing your stack of papers on the cameral platform and sliding a sheet off when you are finished rather than taking off and repositioning a new sheet every time you change documents. Leave the document on long enough so the students have time to take notes but not past the point where you are finished talking about it.
* **LCD Projectors**

LCD’s used with a computer project an image onto a screen or blank wall - and provide more instructional flexibility in the types of content that can be used in a classroom. Classroom Support will train instructors on how to use the LCD Projectors as well as other classroom technology.

Advantages of LCD’s

* Since slides are stored in files on the computer, they can be made accessible to students or other instructors.
* Presentations are easily made using PowerPoint or other software applications. PowerPoint can also be used to prepare handouts and content outlines.
* Some instructors post their PowerPoint slides to their course sites so that students may download them for study purposes.
* Many of classroom technology installations include connecting a videocassette player and a document camera to the computer. This installation allows instructors to project videos or images directly from a book to the screen through the LCD projector Instruction through the Use of LCD’s Students prefer consistent presentation of information. Consider standardizing the usage of your LCD slides, keeping in mind the following:
  + The opening slide might be the title or main theme of the day.
  + Subsequent slides might be key terms, discussion questions, and important concepts.
  + Use the slides to tell a story. Talk to the students, not at them.
  + Involve the students in discussion of the visuals.
  + If you use slides regularly, the final or ending slide will become a signal to the students that class is over, with accompanying lack of interest and closure. Instead, use the last slide as a discussion device to allow students to synthesize information and bring closure to the topic.
  + While using a standard series of slides, vary the layout and color for each lecture. All presentation software allows the choice of different backgrounds and color through the use of templates or master slides.
  + Use sound clips, animations, and clip art with discretion.
  + Avoid using too many slides. A good rule of thumb is to spend two or three minutes per slide.
  + Be careful about infringing on another author’s copyrights.
* **Personal Response System**

This electronic technology allows instructors to monitor attendance, conduct real-time surveys in the classroom, and elicit student performance feedback through quizzes and real-time surveys. In its basic configuration, the system consists of wireless, hand-held, student transmitters (clickers) and an instructor-controlled receiver-displayed unit. The system supports a number of display formats including bar graphs and numerical distributions.

* **Tips for Using Clickers in the Classroom** 
  + Use the clickers everyday so students will get used to bringing them to class.
  + Spread clickers questions throughout your lecture so students remain engaged but do not offer so many questions that it becomes tedious for both you and them.
  + Always have a couple of extra clickers on hand for students who may forget theirs, but create an expectation that students must be prepared for class by bringing their clickers with them
  + If you are using clicker questions for quiz grades, reduce the possibility of cheating by keeping the point value of the quizzes low.
  + Always have a back-up plan! Technology is a wonderful tool, but it can sometimes have glitches. Have an alternate plan for what you will do if the system does not work for a given lecture.
* **Video or Film**

Using video or film in classroom instruction has the advantage of presenting abstract ideas in a realistic context, which helps students grasp the abstract ideas more easily and to retain the material longer. When Using Video in the Classroom

* Do not show the entire tape/DVD if there is no need to do so. Think about why you are using the video and show only the applicable portions.
* Relate the video to what is being discussed in class and discuss relevance to every day issues or problems.
* Prepare a set of questions taken from the video that students might discuss or answer. Prepare students by providing an outline of the video’s main points on the document camera, whiteboard, or handout so that students know what to look for as they watch.
* Since video only presents a one-way flow of information, compensate for this lack of involvement by encouraging dialogues in other areas of the class such as group discussion. When Using Video Online
* Online video can be used for screen capture and recording, simulations, demonstration of processes and other visual illustrations.
* Keep the length of the video short, no more than 3 – 5 minutes and follow up with a set of questions or an activity to be completed to hold students’ attention and keep them on task. If the video is long, break it up into 3 – 5 minute modules for easier viewing with questions or points to consider in between.
* When using web-based media, be certain to inform students of general technical and computer requirements and provide links for downloading the necessary plug-ins and media players. General Presentation Guidelines Guidelines for a Variety of Instructional Media
* Visual aids should augment the presentation; they are not meant to be the entire presentation.
* It is important to be able to teach without them. Instructional aids may arrive late, or not arrive at all. Also, something may go wrong or break down. Even careful planning cannot cover every possibility.
* It is imperative that all instructional media are previewed before they are used in class or online. This will familiarize you with content and structure, as well as ensuring that no unfortunate (and sometimes embarrassing) mixups have occurred.
* Visuals are best kept simple, with minimal wording. They should always be readable from a distance (when reproducing from texts and enlarging graphics). You can practice using the visual aids in the actual classroom before the lecture begins.
* The audience’s line of vision should not be obstructed. Visual materials should be displayed only when the instructor is ready to use them, and they should be kept visible until the students have finished taking notes. You should remove the materials when you are ready to talk about something else, signaling that it is time for discussion or noting a subject change.
* Effective instructors talk to the students, not the visual aids.
* **Instructional Strategies Involving Media**

While it is necessary to talk about how media might improve classroom lectures, the reality is that there are more effective types of learning activities. Probably the most studied and research-based movement in the use of technology today is being done by Vanderbilt University in the areas of situated cognition and anchored instruction. Situated cognition defines understanding as partially being a function of the context in which it is learned. Most of us have experienced a situation where we have learned something, but we cannot recall it when we need it. Or that we know that we should be able to solve a problem but the details escape us. This is known as inert knowledge. One reason for this lack of recall, according to John Seely Brown and others (1989), is that the knowledge was learned in a sterile classroom situation and was never applied in a real world context. One instructional technique to reduce inert knowledge is anchored instruction; that is, to instruct using an experience common to the students. Instructors at Vanderbilt create an anchor by showing a 12-15 minute video clip that presents the context for problem solving. All the data the student needs to solve the problem is contained in the video. Students work together in groups to find the data they need and solve the problem. The students present and defend their solutions, and the instructor provides feedback. Most collaborative learning situations today involve the use of media in some way. The Web provides a way for students in different locations to collaborate on problem solving and learning. (For details on using the Web as an instructional media tool, see Chapter 10 - Using Course Websites as Instructional Tools.) The realization that learning is a social as well as a mental process is important to the understanding of how media can improve learning <https://distance.fsu.edu/docs/instruction_at_fsu/Chptr9.pdf>

**Unit 06**: **Classroom Management**

* 1. Concept of Classroom management
  2. Positive class-room environment
  3. Classroom seating arrangement
  4. Classroom Climate
  5. Classroom decoration

**Unit 06**: **Classroom Management**

**6.1 Concept of Classroom management**

Classroom management is the process by which teachers and schools create and maintain appropriate behavior of students in classroom settings. The purpose of implementing classroom management strategies is to enhance prosocial behavior and increase student academic engagement (Emmer & Sabornie, 2015; Everston & Weinstein, 2006). Effective classroom management principles work across almost all subject areas and grade levels (Brophy, 2006; Lewis, et al., 2006).

* **Effective classroom management**
* Establishes and sustains an orderly environment in the classroom.
* Increases meaningful academic learning and facilitates social and emotional growth.
* Decreases negative behaviors and increases time spent academically engaged.

**6.2 Positive classroom environment:**

Classroom Management is about procedures becoming routines. Management can be enhanced when procedures are explained to students, modeled for students, practiced by students, and reinforced by practicing again and again. Procedures, that are learned, establish routines and routines give structure to instruction. Implementation of the following strategies leads to a positive, productive learning environment.

* Establish a well-organized and structured classroom environment that promotes concentration, study, and learning
* Create an environment where students feel free and/or safe to make mistakes
* Design a friendly, accepting atmosphere where students and teachers treat each other with respect and mutual support
* Arrange the classroom furniture to allow the teacher quick access to each student
* Maintain the best air flow to keep students comfortable and alert
* Play soft music to create a calm, relaxed pace, and tone for the classroom when appropriate
* Use clarity when giving directions and deliver instruction in an organized manner to avoid confusion as confusion leads to problems and problems lead to misbehavior
* Establish communication with parents for sharing information, developing interest, soliciting help and cooperation, and creating accountability
* Get to know students as soon as possible and use their names when addressing them
* Stand at or near the entrance to the classroom and greet students upon entry
* Teach and practice housekeeping procedures (e.g., turning in assignments, homework procedures, restroom protocol, sharpening pencils, trash disposal)
* Teach expectations in a formal manner through modeling, role-playing, and repeated practice beginning on the first day of school
* State expected behaviors clearly by defining what the behaviors should look like and sound like
* Post rules and/or expectations using visual and written prompts and refer to them frequently
* Maintain a visual schedule and refer to the schedule often
* Provide verbal and nonverbal signals to remind students of rules and expectations at the beginning of a lesson or activity
* Use positive statements to reinforce desired behavior (e.g., "Great job working with your partner and completing the task on time.")
* Give sincere praise often
* Use gentle reminders to address inappropriate behavior
* Use a calm, firm voice when redirecting a student
* Utilize humor as opposed to reaction to de-escalate potential problems
* Avoid sarcasm, criticism, threats, and arguments to prevent students from feeling trapped
* Refrain from taking misbehavior personally which could impair good judgment
* Conference with a student privately when conversing about misbehavior
* Engage in active supervision by interacting with students while walking around the room and amongst the students
* Teach students self-management skills and support those who tend to struggle
* Use signals to gain or redirect attention of students (e.g., clapping pattern, playing music, raising hand)
* Assign peer partners to provide student support as needed
* Prepare students in advance on how to work in groups or with partners by explaining the expectations/procedures of the assigned task and individual roles within the group
* Alternate between active and passive activities to promote a high level of student engagement
* Scan room frequently, remain cognizant of what students are doing at all times, and provide specific feedback
* Have efficient transition procedures in place
* Remind students of upcoming transitions or of any changes in the schedule
* Compliment students verbally for compliance with expectations
* Provide specifically written acknowledgements to students (e.g., notes on students' desks, comments on papers, or notes mailed to students and parents)
* Engage students in purposeful, routine tasks upon entry to the classroom (e.g., morning arrival, after lunch, after a school event, changing classes)
* Have meaningful transition activities for students when assigned tasks are completed
* Minimize interruptions while students are working on an assigned task
* Use pacing and engaging activities to eliminate boredom and frustration
* Assign classroom responsibilities and jobs to promote a sense of belonging
* Build a sense of community, teamwork, and interdependence among students
* Prepare students for an upcoming substitute by discussing expectations
* Develop a positive relationship with students to demonstrate how much you care, as students typically work earnestly to please teachers whom they respect, like, and trust
* Play a variety of music to calm, to relax, to stimulate thinking, or to signal a change in activities
* Incorporate move-around breaks and exercises into the schedule following extended seat activities

**6.3 Classroom seating arrangement**

As Fred Jones, a noted classroom management expert, explains: “A good classroom seating arrangement is the cheapest form of classroom management. It’s discipline for free.” Many experienced teachers recommend assigned seating for students to facilitate discipline and instruction. They argue that students left to their own devices will always choose a seat that places the teacher at the greatest disadvantage. Best practices suggest a few common-sense rules to guide classroom arrangements.

* Students should be seated where their attention is directed toward the teacher.
* High traffic areas should be free from congestion
* Students should be able to clearly see chalk board, screens, and teacher.
* Students should be seated facing the front of the room and away from the windows.
* Classroom arrangements should be flexible to accommodate a variety of teaching activities
* Place the teacher’s desk in a low-traffic area or near the door if there is a need to control in-andout student traffic.
* Organize students in circles if interaction by the students is sought.
* Organize students in rows or a straight-sided U shape ( ) for teacher-led instruction.
* Provide for quiet independent work areas (e.g., beanbag chairs, books, headphones).
* Provide for small-group work centers and/or reward areas
* Plan for easy access to materials by the teacher and the students.
* Plan for a smooth traffic flow to enable students to move around without disrupting others.
* Place the teacher’s desk in a low-traffic area or near the door if there is a need to control in-and out student traffic.
* Organize students in circles if interaction by the students is sought.
* Organize students in rows or a straight-sided U shape ( ) for teacher-led instruction. Provide for quiet independent work areas (e.g., beanbag chairs, books, headphones).
* Provide for small-group work centers and/or reward areas (see Chapter 4 for activity table description). Space
* Plan for easy access to materials by the teacher and the students.
* Plan for a smooth traffic flow to enable students to move around without disrupting others.
* Use Bulletin Boards
* Decide on a theme for one board.
* Leave a couple of bulletin boards and other areas empty to display students’ work.
* Encourage students to suggest and design a display.
* Place any bulletin board containing items that may distract students from instructional time in a high-traffic area located behind the students.
  1. **Classroom Climate**

Amborse *et. al.* (2010) define classroom climate as “the intellectual, social, emotional, and physical environments in which our students learn. Climate is determined by a constellation of interacting factors that include faculty-student interaction, the tone instructors set, instances of stereotyping or tokenism, the course demographics (for example, relative size of racial and other social groups enrolled in the course), student-student interaction, and the range of perspectives represented in the course content and materials”.

**Why is classroom climate important?**

Classroom climate is affected not only by blatant instances of inequality directed towards a person or group of people, but also by smaller, more subtle "micro-inequities" that can accumulate to have significant negative impacts on learning (Hall, 1982).

Incivilities that are not addressed properly not only negatively impact learning within the course in which it is experienced, but may also negatively influence a student's success at an institution (Hirschy & Braxton, 2004).

**What factors influence classroom climate?**

The following is borrowed heavily from Ambrose *et. al*. (2010, p. 173-179).

* **Stereotypes** cause alienation and marginalization among those who are the target of unfair generalizations. In fact, just the threat of stereotypes, what Steele & Aronson (1995) tokened "stereotype threat," can impact learning negatively. Students who have experienced stereotypes or expect to be viewed or judged in a certain way may encounter tensions and cognitive disturbances that interfere with learning.
* **The tone** of a class environment is influenced strongly by the instructor. Studies show that students approach faculty who express encouragement more so than faculty who come off as punitive. Tone can be set by instructors through their interactions with students and through other modes of communication including syllabus.
* **Student-student interactions** during and outside of class affect the overall climate. However, the ways in which instructors and those in authority deal with negative interactions has more of an impact on student learning.
* **Faculty-student interactions** also play a role. Students who felt that their instructor was approachable, had concern for minority student issues and treated students as individuals and with respect reported a better course climate (Astin, 1993).
* **Content** includes the course materials, examples and metaphors, case studies and project assignments used to illustrate the ideas being taught. Content that includes a variety of perspectives or is representative of multiple views is more conducive to a positive climate.

**How can you know if the classroom climate is productive?**

In addition to being reflective about the events that take place in your class on a regular basis, there are techniques you can use to gauge your classroom's climate. Ask for feedback directly from your students on their experiences in your course. This also serves to heighten students' awareness of their own study practices. A number of classroom assessment techniques (CATs) (Angelo & Cross, 1993) are designed to do just that:

Inquire about the classroom climate:

* Pass out index cards to all students
* Prompt students to respond anonymously to one or both of the following questions:
  + I feel comfortable participating in this course: a) always b) often c) sometimes d) rarely e) never.
  + One or two things that would make me feel more comfortable in this class would be:
* Collect the responses and study them for common themes.
* Address your findings in the next session and explain to students what changes you will make, if any.

Inquire about students’ reactions to the teacher or the method of instruction:

Chain notes

* Pass out blank index cards to all students.
* Explain that you want to collect honest responses to a question regarding student learning or attention in your class.
* Take a large envelope and write a question on it.
* Questions can address their reactions to your teaching, such as:
  + What are you focusing on right now?
  + On a scale of 1-5 how would you rate your level of (concentration/interest/engagement) right now (5 being the highest).
* Direct students to respond anonymously to the question only when the envelope comes to them.
* Collect the responses to tally the results and report on your findings in the next class.

**Electronic Feedback**

* To inquire about students’ perceptions of your teaching, prepare an anonymous online survey to send to students electronically.
* Create questions based on teaching practices you want to know about, and that you can and are willing to change (in the event that your feedback indicates this).
* Let students know what you are doing and why you are doing it.
* Use Qualtrics Cornell’s free survey software, and send the survey via email. Explain the purpose of the survey, ensure anonymity and indicate how long it should take to finish it. Refrain from making it too long.
* Summarize findings in your next class and describe any changes you might make as a result of the feedback.

Inquire about students’ experience with the course materials, readings and assignments:

**Reading Rating Sheets**

* Ask students to fill out short questionnaires on the class readings.
* Questions can address the clarity and usefulness of the reading, how closely the student read it, how interesting it was, and if students think the reading should be used again next term (why or why not?).
* Ask students to fill out the small questionnaires directly after they have read, or at the beginning of the next class.
* Explain that their response will be taken into consideration in your course design decisions.

**Group Work Evaluations**

* If you had students working in groups and want to know whether you facilitated that process effectively, you can conduct a group work evaluation.
* Create a short survey asking how effectively the group worked together. Questions may include:
  + How well do you think your group worked together on this assignment? (Provide Likert scale options, i.e., "Strongly Agree" to "Strongly Disagree.")
  + Out of *x* members, how many contributed adequately?
  + Out of *x* members, how many were prepared to do this assignment well?
  + Give an example of something you learned from another member in the group.
  + Give one example of something you taught other members in the group.
  + What is one change your group could make to improve?
* Answering these questions also has the benefit of increasing students’ meta-cognitive skills in relation to working with groups.

**Assignment Assessments**

* Choose an assignment that you plan to use again.
* Create a few questions regarding this assignment's value in relation to student learning.
* Create a short assessment form for students to fill out in class or electronically through an online survey service such as Qualtrics

**How can you manage classroom climate?**

* Incorporate diversity into your course and use inclusive teaching practices.
* Use icebreakers and collaborative learning to give students the opportunity to get to know one another.
* Include diversity and disabilities statements in your syllabus.
* Address incivilities right away.
* Establish ground rules.
* Check in on classroom climate periodically.
* Make efforts to connect with students.

<https://www.cte.cornell.edu/teaching-ideas/building-inclusive-classrooms/classroom-climate.html>

**Classroom Climate:**

Classroom climate sometimes is referred to as the learning environment, as well as by terms such as atmosphere, ambience, ecology, and milieu. The Impact of classroom climate on students and staff can be beneficial for or a barrier to learning Definitional Considerations Classroom climate is a perceived quality of the setting. It emerges in a somewhat fluid state from the complex transaction of many immediate environmental factors (e.g., physical, material, organizational, operational, and social variables). Both the climate of the classroom and the school reflect the influence of a school's culture, which is a stable quality emerging from underlying, institutionalized values and belief systems, norms, ideologies, rituals, and traditions. And, of course, classroom climate and culture both are shaped by the school's surrounding and embedded political, social, cultural, and economic contexts (e.g., home, neighborhood, city, state, country).

Key concepts related to understanding classroom climate include (a) social system organization, (b) social attitudes, (c) staff and student morale, (d) power, control, guidance, support, and evaluation structures, (e) curricular and instructional practices, (0 communicated expectations, (g) efficacy, (h) accountability demands, (1) cohesion, 0) competition, (k) the "Fit" between key learner and classroom variables, (1) system maintenance, growth, and change, (m) orderliness, and (n) safety. Rudolph Moos (1979) groups such concepts into three dimensions for classifying human environments and has used them to develop measures of school and classroom climate Moos's three dimensions are:

* Relationship -- the nature and intensity of personal relationships within the environment-, the extent to which people are involved in the environment and support and help each other.
* Personal development -- basic directions along which personal growth and self enhancement tend to occur.
* System maintenance and change -- the extent to which the environment is orderly, clear in expectations, maintains control, and is responsive to change.

The concept of classroom climate implies the intent to establish and maintain a positive context that facilitates classroom learning, but in practice, classroom climates range from hostile or toxic to welcoming and supportive and can fluctuate daily and over the school year. Moreover, because the concept is a social psychological construct, different observers may have different perceptions of the climate in a given classroom. Therefore, for purposes of his early research, Moos (1979) measured classroom environment in terms of the shared perceptions of those in the classroom.

Prevailing approaches to measuring classroom climate use (1) teacher and student perceptions, (2) external observer's ratings and systematic coding, and/or (3) naturalistic inquiry, ethnography, case study, and interpretative assessment techniques (Fraser, 1998; Freiberg, 1999).

**Importance of Classroom Climate:**

Classroom climate is seen as a major determiner of classroom behavior and learning, Understanding how to establish and maintain a positive classroom climate is seen as basic to improving schools. Research suggests significant relationships between classroom climate and such matters as student engagement, behavior, self'-efficacy, achievement, and social and emotional development, principal leadership style, stages of educational reform, teacher burnout, and overall quality of school life (Fraser, 1998; Freiberg, 1999). For example, studies report strong associations between achievement levels and classrooms that are perceived as having greater cohesion and goal-direction, and less disorganization and conflict. Research also suggests that the impact of classroom climate may be greater on students from low-income homes and groups that often are discriminated against. Given the nature of classroom climate research, cause and effect interpretations remain speculative. The broader body of research on organizational climate does suggest that increasing demands for higher achievement test scores and reliance on social and tangible rewards to control behavior and motivate performance contribute to a classroom climate that is reactive and over-controlling (Mahony & Hextall, 2000).

**Promoting a Positive Classroom Climate:**

A proactive approach to developing a positive classroom climate requires careful attention to (1) enhancing the quality of life in the classroom for students and staff, (2) pursuing a curriculum that promotes riot only academic, but also social, and emotional learning, (3) enabling teachers to be effective with a wide range of students, and (4) fostering intrinsic motivation for classroom learning and teaching. With respect to all this, the literature advocates:

* a welcoming, caring, and hopeful atmosphere;
* social support mechanisms for students and staff,
* an array of options for pursuing goals;
* meaningful participation by students and staff in decision Making;
* transforming a big, classroom into a set of smaller units that maximize intrinsic motivation for learning and are not based on ability or problem-oriented grouping-,
* providing instruction and responding to problems in a personalized way;
* use of a variety of strategies for preventing and addressing problems as soon as they arise;
* a healthy and attractive physical environment that is conducive to learning and teaching.

**Role of the School Psychologist:**

Given the importance of classroom climate, the establishment and maintenance of a positive climate in every classroom must be a central focus of all school staff. School psychologists can play an increasing role by taking every available opportunity to work with teachers in their classrooms to increase teacher competence and provide collegial support. This means going beyond traditional consultation about classroom management strategics arid how to work with individuals manifesting behavior, learning, and emotional problems. School psychologists can be invited to spend increasing amounts of time in classrooms teaming with teachers to enhance classroom climate. In addition, school psychologists can work with other student support staff to improve classroom climate by establishing and maintaining a positive school climate that promotes well being and addresses barriers to teaching arid learning (Adelman & Taylor, 1997). A major focus of this should be on developing school-wide programs that:

* assist students and families as they negotiate the many school-related transitions
* increase home involvement with schools
* respond to, and where feasible, prevent crises
* increase community involvement and support
* facilitate students and family access to specialized services when necessary.

**Conclusion:**

Classroom climate plays a major role in shaping the quality of school life and learning. Research has indicated a range of strategies for enhancing a positive climate. School psychologists can play a major role in ensuring schools strive to create such a climate.

<http://smhp.psych.ucla.edu/publications/46%20classroom%20climate.pdf>

**6.6 Classroom decoration**

The type of classroom environment that a teacher creates and encourages can either increase or decrease a student's ability to learn and feel comfortable as a member of the class. The classroom environment should do as much to foster cooperation and acceptance as the teaching methods that the teacher uses. This article describes a number of methods to help teachers plan for and create a classroom that welcomes and supports all children. At the beginning of the year teachers have the goal of establishing a classroom environment that is favorable for helping all students work cooperatively in order to learn. The classroom environment can either improve or impede a student's ability to learn and feel safe and comfortable as a member of the class. Classrooms that encourage emotional well-being create an atmosphere for both learning and emotional development. Educational research supports creating an atmosphere of mutual respect, where students feel relaxed in asking questions and expressing their thoughts and feelings (Stronge, 2002). Some areas to consider when creating an atmosphere of mutual respect are classroom design, classroom procedures, and classroom strategies. Implementing a few strategies that address these areas can help develop a strong sense of community and encourage positive interactions and cooperative learning for students with and without disabilities. A warm classroom environment can lead to increased academic achievement and a sense of pride and belonging in the school.

One of the first things a teacher does at the beginning of the school year is organize, arrange, and decorate the classroom. The physical environment of a classroom plays a part in the ownership students feel about their school and more specifically their class. The classroom environment should do as much to foster cooperation and acceptance as the instructional method the teacher uses. Children are sensitive to the atmosphere created in the classroom. Is the classroom warm and inviting? Are all areas of the classroom accessible to all children? Are the walls bleak and lacking in color or do the decorations help to make the students feel comfortable? Are areas well defined as to their design and purpose? (Scott, Leach, & Bucholz, 2008).

Decorating a classroom with some kind of warmth can help promote a sense of comfort and security. Classrooms tend to be rather cold, bare places until they are decorated. Adding a splash of color can bring life to a sterile environment. Color choice is important when decorating a classroom. Teachers should keep in mind that red and orange can make children feel nervous and unsettled while blue and green can help students feel calm. Furthermore, dark colors take natural sunlight out of a room and can even make people feel drowsy and listless (Hathaway, 1987). Plants, soft chairs, rugs, and pillows can help to add warmth and comfort to a class environment (Rutter, Maughan, Mortimore, & Ouston, 1979).

**Create a Neat and Organized Classroom:**

While decorations help create a warm environment, organization of the furniture in the room is also important. There should be enough space for all students to easily move throughout the classroom. Teachers should consider the use of universal design. Universal design is designing products and environments to be usable by all people, to the greatest extent possible, without the need for modification or specialized design (Burgstahler, 2008). This approach began in the field of architectural design when architects started to engineer accessible buildings from the beginning rather than making renovations to those buildings later (Lieberman, Lytle, & Clarcq, 2008). Universal design for instruction is a set of principles that help in the process of designing the classroom environment and instruction so that they are contributing to the learning of all students (Samuels, 2007). Teachers should apply the strategy of universal design for learning to make sure that activities, materials, and equipment are physically accessible and usable by all students. Teachers should also expand safety procedures to all students, including those that are identified with a disability and when teaching, repeat printed directions orally.

Desks arranged in neat, orderly rows may make movement throughout the class easier but this arrangement may not help to create a warm, friendly environment. Patton, Snell, Knight, Willis, and Gerken (2001) found that 94 percent of the K-3 teachers they surveyed use a semicircle or cluster to arrange the desks in their classrooms. These teachers felt that grouping desks offered several benefits including encouraging cooperative learning, building a sense of class community, and making the best use of the space. Ideal desk arrangements create opportunity for students to be actively engaged in learning and have the opportunity to work cooperatively, when appropriate, with their peers, while still allowing students to navigate the environment safely.

<http://corescholar.libraries.wright.edu/cgi/viewcontent.cgi?article=1102&context=ejie>

**Unit 07: Reflective Practice**

7.1 Meaning and nature of Reflective Practices

7.2 Process of Reflection

7.3 Major techniques and strategies:

7.3.1 Critical incident analysis

7.3.2 Reflective learning Journals

7.3.3 Peer coaching

7.3.3 Action research

7.3.5 Portfolios as a source of reflection

7.4 Skills for reflection

7.5 Systematic reflection throughout the teaching-learning process

**7. Reflective Practice: Historical background:**

Reflective practice is seen by many teacher educators to be at the very heart of effective teacher preparation programs and the development of professional competence. Loughran (2002) writes, ‘It is through the development of knowledge and understanding of the practice setting and the ability to recognize and respond to such knowledge that the reflective practitioner becomes truly responsive to the needs, issues, and concerns that are so important in shaping practice’(p.9).

According to philosopher and educator John Dewey (1933), we begin to reflect on a complex situation when we face that situation and ask ourselves what needs to be done. Dewey’s ideas and the idea of professional reflective practice were developed in the 1980s with the emergence of Schon’s (1983) concept of ‘reflection-in-action’. According to Schon (1983), reflection-in-action is a rigorous professional process involving acknowledgement of and reflection on uncertainty and complexity in one’s practice leading to ‘a legitimate form of professional knowing’ (p.69). Since the 1980s, the development of reflective skills has been widely adopted in a range of higher education and best practice professional settings including education, health sciences and leadership. Whilst most educators in higher education would agree that it is important for learners to develop these skills, there has not always been agreement on the definition of reflection or exactly what constitutes reflective practices in a higher education context.

**Contemporary teacher education programs:**

Whitton, Sinclair, Barker, Nanlohy and Nosworthy are contemporary Australian researchers and educators who work with pre-service teachers and who draw on Dewey’s writings for their definition of reflection by emphasising the importance of an attitude of inquiry and ‘openmindedness, responsibility and whole heartedness’ (as cited in Whitton et al 2004 p.220). According to Whitton et al (2004), reflection is a threefold process comprising direct experience, analysis of our beliefs, values or knowledge about that experience, and consideration of the options which should lead to action as a result of the analysis. Graham and Phelps (2003) also work in teacher education and they invite educators to consider the discourse of reflection in relation to meta-cognition. Meta-cognition is an important skill for tertiary learners, as it cultivates the necessary self regulation to ‘activate and sustain cognitions, behaviours and affects, which are systematically oriented to attainment of their goals’ (p.15). For student teachers in particular, having the skills of meta-cognition means that they can selfmonitor and self-evaluate when engaging with new and complex knowledge, when struggling with values and beliefs clashes (Rigney, Rigney, & Tur 2003), and during the theory/practice integration process generated by the teaching practicum.

**Professional reflective practice:**

Walkington (2005) also works with Australian student teachers and writes that ‘reflection on one’s own perceptions, beliefs, experiences and practices is a core activity for all teachers - preservice and in-service, in schools and universities’ (p.59). According to Walkington, reflective practice can be facilitated and indeed modelled by lecturers, mentor teachers or skilled peers who demonstrate the skills of critical questioning, comparing and contrasting theory and practice, and who challenge the assumptions of the beginning teacher. Professional reflective practice is a ‘complex and intellectually challenging activity’ (Moran and Dallart 1995 p.22). It also takes time, continuous commitment and requires skilled support to develop. Ideally it leads to new action or an informed affirmation of one’s existing actions. According to Jarvis (1992) as cited in Graham and Phelps (2003), ‘reflective practice is more than just thoughtful practice, it is the process of turning thoughtful practice into a potential learning situation’ (p19). Despite the differences in defining and implementing the process of reflection, it is clear from the literature that challenging and affirming our learner and teacher identities through reflective practice is crucial for our journey of professional self-discovery.

<http://ehlt.flinders.edu.au/education/reflectivepractice/reflect/what%20is%20reflective%20practice.pdf>

**7.1 Meaning and nature of Reflective Practices**

**Definitions:**

In reflective practice, practitioners engage in a continuous cycle of self-observation and self-evaluation in order to understand their own actions and the reactions they prompt in themselves and in learners (Brookfield, 1995; Thiel, 1999). The goal is not necessarily to address a specific problem or question defined at the outset, as in practitioner research, but to observe and refine practice in general on an ongoing basis (Cunningham, 2001)

Reflective practice… is the habitual and judicious use of communication, knowledge, technical skills, reasoning, emotions, values and reflection in daily practice for the benefit of the individuals and communities being served. (Epstein and Hundert, 2002)

“[practitioners] frame the problem of the situation, they determine the features to which they will attend, the order they will attempt to impose on the situation, the directions in which they will try to change it. In this process, they identify both the ends to be sought and the means to be employed.” (Schön, 1983)

<https://www.ucd.ie/t4cms/Reflective%20Practice.pdf>

What is Reflection? Reflection is very broadly able to be defined as the deliberate, purposeful, metacognitive thinking and/or action in which educators engage in order to improve their professional practice. Different theories, models and levels of reflection have most commonly focused on differentiating the major elements of this construct: • the conditions, situations or circumstances that prompt engagement in the reflective process • the process itself, different types of reflection, different concepts or opinions on how this is undertaken • the content of the reflection, what exactly needs to be analysed, examined, discussed, challenged in the reflective process and with what perspectives or ideologies • the product of the reflection, improved understanding of professional practice, action taken as a result of the reflective thinking. The brief overview of understandings of reflection in educational practice that follows illustrates some of these differences as proposed by various writers in this field

<https://uk.sagepub.com/sites/default/files/upm-binaries/59229_Sellars.pdf>

**7.2 Process of Reflection**

Using a Reflective Practice Framework In learning environments and teaching contexts, teachers may encounter situations or episodes where they need to pause, think and make intelligent decisions. Stephen Brookfield (1999) introduces four lenses through which teachers can view these teaching and learning episodes and reflect on their implications. These lenses are: (1) autobiographies as teachers and learners, (2) students’ eyes, (3) colleagues’ experiences, and (4) the literature on teaching and learning. The first lens involves putting our autobiographical self in the mirror to understand students’ experiences through self-reflection. This can be done by drawing on our own experiences and understanding. This process can also alert us of the assumptions we may have made along the way. The second lens is to see ourselves as students see us, and draw on students’ feedback to inform our reflections. This reflective process makes us aware of the invisible power relationships within learning environments that may affect students’ learning experiences. The third lens enables us to observe our practice critically from a colleague’s perspective. Finally, the fourth lens is research on teaching. It can provide us with insights into other people’s practices, through reading literature, for instance. We find various related aspects of the things we have been doing in our own teaching in other people’s situations. In other words, they may be named “in different ways [but they are] generic aspects of what we thought were idiosyncratic events and processes” (Brookfield, 1999, p. 30).

**The Reflection Cycle:**

Reflecting is a cyclical process, where recording ones thoughts (reflecting) “leads to improvement and/or insight” (RMIT, 2006). Improvement could mean progress, development, growth, maturity, enhancement, or any number of words which could imply change. In education, we want students to change for the better, to grow while learning and to mature into knowledgeable adults. Recording what has happened, reflecting on processes and analyzing to improve deeper learning all can lead to new dimensions of students’ inner selves



<http://www.niu.edu/facdev/_pdf/guide/assessment/reflective_journals%20and_learning_logs.pdf>

**7.3 Major techniques and strategies:**

There are several modes and frameworks for reflective practice used for the enhancement of students’ learning experience and also professional development.

**7.3.1 Critical incident analysis**

Why use critical reflection? Analysing a critical incident may help you to:

* “reflect-on-action” (ie past experience),
* “reflect-in-action” (ie as an incident happens), and
* “reflect-for-action” (ie actions you may wish to take in future experiences)

Often “reflection” and “critical reflection” are used inter-changeably in the literature. However, critical reflection denotes another level of reflection beyond what you might or might not cover in other forms of reflection (eg. diary, journal). Sometimes action is just “too hot” for us to consciously reflect-in-action (as the incident happens) (eg. Eraut, 1994). This is why a critical reflection framework may be better suited as it requires reflection in relation to past and future action. A default use of this technique and tool, particularly in “health”, is as a way of reflecting on “what was perceived to go wrong”. While this is a valid purpose, the scope of this framework has broader applications – namely as an appreciative form of inquiry. This framework of reflection starts from a basis of what has worked well and why. Critical reflection is an extension of “critical thinking”. It asks us to think about our practice and ideas and then it challenges us to step-back and examine our thinking by asking probing questions. It asks us to not only delve into the past and look at the present but importantly it asks us to speculate about the future and act. What theory underpins this form of reflection? Critical incident reflection sits well within the action research field or it can “stand-alone” as a learning method. While there is little agreement in the literature about what is reflective practice there does seem to be agreement that critical reflection can be taught to adults. John Flanagan, who founded the American Institutes for Research in 1946, introduced critical incident reflection. He set out a 20 year plan to improve the effectiveness of organisations and their leaders. His strategy: • To formulate problems in general terms so that they could apply findings to a broad class of issues; • To emphasise new research methods to be of central importance; • To develop “the critical incident technique” to identify contributing factors to the success or failure in specific situations.

Critical incident reflection is used in health, for example, seeking patient views and in multiand inter-disciplinary team situations. How can critical incident reflection be used? Critical incidents can be either positive or negative; an interesting interaction or an ordinary everyday occurrence. Sometimes, depending on the focus and the “rawness” of a critical incident, it may feel uncomfortable to undertake a critical reflection because it highlights our assumptions, views and behaviours. The critical reflection framework is a guided process to aid analysis and increase the potential for positive outcomes. Analysis of a critical reflection can take place at any point and therefore is useful particularly in development and enquiry orientated programmes (ie. learning and insights can be drawn from, fed back in and across programmes in sync with the rhythm of participant experience and need). Possible outcomes from undertaking critical reflection include:

Congratulation and affirmation. Even within a critical incident that someone frames as “unsuccessful” there is usually some part of an adverse situation that has been handled well and this should be acknowledged; • Immediate action; • Not resolved; • No action but the person feels better for talking about it. Critical incident reflection can be used in different ways to produce narratives (individual and/or group) based on the recall of an experience. For example, critical incident reflection can be of a “one-off” event/experience or of different experiences about the same issue/focus. Variations in the use of critical incident reflection can be introduced through, for example: • the combinations of people participating in the critical reflection (eg. different roles or connections to the same experience or issue); • time (eg. one single incident that occurs on a regular basis; a specified time period, such as six months or at the end of each week). A critical incident reflection framework The framework below is a guide for your own reflection and learning from events that have significance to you. The questions under each heading are “prompts” only. The framework is there to support you identify and develop options. There are no right or wrong responses although the overarching frames of “The what?”, “So what?” and “Now what?” are important components in a critical incident reflection.

|  |  |
| --- | --- |
| The what? A description of the incident/experience with just enough detail to support doing your “So what?” section. For example, description about who, what, why, when, where. | |
| So what? This is the sense-making section that asks you to surface general meaning, significance, your position / view point; actions; emotions (pre-during-post). | Now what? This section makes connections from the experience / incident to further actions. For example, what would you do differently / the same next time? How come? What are key points, lessons learnt to share with your colleagues, network and/or group outside the network? (eg. idea, product, process, concept)? How will you do this? |

<http://www.education.vic.gov.au/Documents/childhood/professionals/support/reffram.pdf>

**7.3.2 Reflective learning Journals**

Learning journals are written records, which students create as they think about the concepts they have learned, the critical incidents involved in their learning and the interactions they have had with other students or tutors (Thorpe 2004). According to Luidens (1997, page 141), ‘writing is a manifestation of thinking', and because students need to manipulate and transform their knowledge before they can present it in a written form, learning journals are suggested to have the ability to facilitate new understandings (Yinger et al 1981). In addition, reflective journal writing can also enable students to critically review the processes of their own learning and behaviours, and to change their learning strategies as and when needed (Gleaves et al 2008). The literature reports a positive association between journal keeping and learners' cognitive skills (McCrindle and Cristensen 1995; Stephien et al 1998). For example, in a study by McCrindle and Christensen (1995), forty undergraduates in a first-year biology course were randomly assigned to a learning journal (experimental) group or a control group. The results showed that students in the experimental group used more cognitive strategies during a learning task compared to those in the control group. In addition, students who kept learning journals showed more sophisticated conceptions of learning and greater awareness of cognitive strategies. They also performed significantly better on the final examination for the course compared to students who had not used learning journals. Learning journals are widely adopted in practice in many institutions, albeit mostly on a non-compulsory basis. For instance, the University of Portsmouth provides a reflective journal template on their website, as well as links to reflective writing guides. Furthermore, many other universities provide useful information to support students to develop reflective writing skills (University of Bradford 2015; University of Manchester 2015; University of Reading 2015). It is useful to note that many degree courses with The Open University have requirements where student learning journals are mandatory as part of assessment submission. Entries are not marked only non-submission leads to loss of marks. In spite of the advantages of journal writing as presented above, some studies have also shown that students can experience a number of challenges in keeping a reflective journal. Some examples include a loss of enthusiasm for the task over time, frustration and uncertainty about what to write, and the solitary nature of writing (Bain et al 1999 and Kerka 1996). Moreover, in some cases students might simply document concrete observations of their experiences, without demonstrating any critical reflection (Kerka 1996). These studies suggest that academics will sometimes need to provide additional support to students while they are writing learning journals. They could, for instance, provide guidelines regarding content and format, suggest a theme for reflection, and give clear explanations of the purpose for the reflective exercise (Woodward 1998). In addition, academic staff could also provide students with feedback and encouragement throughout the process in order to facilitate further reflection (Dye 2005).

<http://www.enhancementthemes.ac.uk/docs/publications/transition-skills-and-strategies---critical-self-reflection.pdf?sfvrsn=8>

It is suggested that students capture all formal and informal events which will prove useful when the time comes to return to the reflective journal or learning log for review. Students should focus on the areas which pose the most problems or difficulty in addition to those which are less problematic. Key to reflective journals and learning logs is to see progression over a period of time and to “gain a sense of achievement” (Dalhousie University, n.d.).

“Write, record

Describe the situation (the course, the context)

Who was involved with the situation?

What did they have to do with the situation?

Reflect, think about What are your reactions?

What are your feelings?

What are the good and the bad aspects of the situation?

What you have learned?

Analyze, explain, gain insight

What was really going on?

What sense can you make of the situation?

Can you integrate theory into the experience/situation?

Can you demonstrate an improved awareness and self-development because of the situation?

Conclusions

What can be concluded in a general and specific sense from this situation/experience and the analyses you have undertaken?

Personal action plan

What are you going to do differently in this type of situation next time?

What steps are you going to take on the basis of what you have learned?”

<http://www.niu.edu/facdev/_pdf/guide/assessment/reflective_journals%20and_learning_logs.pdf>

**7.3.3 Peer coaching**

Peer review is considered to be another important tool for developing critical self-reflection skills in students (Dochy et al 1999). Encouraging students to give each other regular feedback in group meetings helps students become familiar with reflective practices (Moon 1999 and Boud 1999). In peer review, students reflect on their own and others' performance of group 6 tasks. Reviewing the performance of their peers (strengths, weaknesses and areas for improvement) builds the students understanding of the principles of effective group processes and allows them to think about their own performance or approaches (Moon 1999). Research has shown that students who engage in such self-monitoring exercises where they evaluate each other's performance (rather than rely soley on teachers for feedback) become better at self-regulated learning (Butler 2002; Alvi and Gillies 2015). As Moon (1999) explains, 'working with others can facilitate learners to reflect and can deepen and broaden the quality of the reflection so long as all the learners are engaged in the process' (page172). Although peer assessment can be used as one tool to facilitate critical reflection, we need to be aware that students in the transition stage might lack experience in such methods, so peer assessment is probably best introduced as a formative, rather than summative device (Booth 2001, page 501). As too many new types of assessment may lead to resistance, peer assessment might be more likely to gain acceptance once students have become more comfortable with the notion of reflective learning (Booth 2001). The role of academic staff is also important here, as they would need to offer students significant support as they adjust to peer assessment

<http://www.enhancementthemes.ac.uk/docs/publications/transition-skills-and-strategies---critical-self-reflection.pdf?sfvrsn=8>

**7.3.3 Action research**

Reflective practice can be more formally encouraged and directed as action research (Kember & Kelly, 1993). Action research involves systematically changing your teaching using ‘on the ground’ evidence that suggests the changes you make are in the right direction and enhancing student learning (Biggs & Tang, 2007). The target of action research is the teacher, not the change that’s being implemented. In action research the term ‘reflection’ is considered misleading. Transformative reflection (Brockbank & McGill, 2000) suggests that teaching is being altered as a result of the reflection and is deemed more accurate. Engaging in action research to improve teaching practice however involves a more explicit theory of teaching (Biggs & Tang, 2007). While many teachers have an implicit theory of teaching there is a need for a more consciously worked-out theory that generates answers to teaching problems. This helps to rephrases the unhelpful and not very useful ‘there’s something wrong with my teaching’ to the more manageable and approachable ‘students are only regurgitating what I give to them in class’. The latter also brings it back to the teaching, not the students, and allows the problem to framed in a way that that can be addressed by the teacher.

<https://www.ucd.ie/t4cms/Reflective%20Practice.pdf>

**7.3.5 Portfolios as a source of reflection**

Student portfolios represents a powerful reflective tool, as they can help students keep track of their development (Zubizarreta 2008). A student portfolio is defined as a collection of student work that illustrates the student's efforts, progress, or achievement in given areas (Arter and Spandel 1992). A number of universities that have adopted the use of learning portfolios. The University of New South Wales (2015), for example, have developed the UNSW Student Portfolios Site, where students can record their experiences and achievements relevant to a number of graduate attributes, such as communication, teamwork and problem solving. An exercise on reflection on what has already been achieved can enable students to plan how they will go about developing further desired attributes. Similarly, the University of Glasgow (2015) have developed the Graduate Skills Programme (GSP), where students build an electronic portfolio illustrating the skills they have developed in their university years. Students are encouraged to write about four different aspects of their university experience:

(1) academic skills related to aspects such as writing a dissertation or attending academic skills workshops;

(2) extra-curricular activities related to aspects such as studying abroad or being part of a student society or club;

(3) jobs and careers, where networking activities with employers at career fairs can be discussed and/or the creation of a professional LinkedIn profile; and

(4) work-related learning, where students can discuss their summer internships and placements. Students can choose to complete either element of their e-portfolio (or all), articulate the skills they have developed and reflect on their future career objectives.

As an incentive, the University offers an employability award to students who successfully build this portfolio. The intrinsic merit of learning portfolios is that they involve students in the process of reflection, encouraging them to think about their achievements and communicate a sense of the learning experience as a coherent, unified process (Zubizarreta 2008). In other words, the value of portfolios lies not only in engaging students to collect representative samples of their work for assessment or career preparation, but also in addressing vital reflective questions such as 7 'what have I learned?', 'why did I learn?', 'how did I learn?'. In addition, most student portfolios involve an element of personal development planning (that is creating an action plan for personal development), which has also been shown to enhance critical self-reflection (Whittaker 2008).

<http://www.enhancementthemes.ac.uk/docs/publications/transition-skills-and-strategies---critical-self-reflection.pdf?sfvrsn=8>

**7.4 Skills for reflection**

There are various methods to encourage reflection through wiring or conversations, individually or in pair or group reflection, or a combination of these. The way that people capture their reflections is largely dependent on:

* their own learning style
* their discipline – whether they are in a predominantly written-oriented, performanceoriented or oral discipline; and
* what resources they happen to have at hand at the time

For practical reasons, most people capture their reflections in written forms such as diaries, post-it notes on lesson plans, journals, portfolio materials, poetry, sometimes short stories, novels or books. However, some capture reflections in dance, some in drama, some in song. Scholars have reminded of the quality of journal writing for reflection on teaching, and how reflective they actually are. Research indicates that reflective journals mostly have the form of reports, or descriptive writing (Hume, 2009; Maloney & Campbell-Evans, 2002). Writing journals is the most popular form of reflection among teachers. Moon (1999) devotes one complete chapter to the use of journals for reflection. Writing journals should be sustained in the course of time and on-off type of writing does not ensure that learning has occurred from the reflective process. Moon suggests both unstructured and structured forms of journal writing. Unstructured forms include:

* ‘free wring and reflecting’ (chronological but not involved everyday);
* recording thoughts and refection of an ongoing event or issue; and
* ‘double-entry journals’ where one part of the journal is for recoding of the event or what happened, and on the other side we write our reflection on “the written account of the experience” (Moon, 1999, p. 194).

Structured forms of journal writing varies such as ‘autobiographical writing’, portfolios or profiles, and so on (see Chapter 15 in Moon, 1999).

Reflective journal (and portfolios) should be able to demonstrate the ability to learn from reflective practice, and the ways practice have developed. A personal diary or journal, in fact, is a flexible way of reflecting and it does not need to be kept every day. The key point to remember is that it must both describe and examine learning and teaching situations or events. Generating reflection is an emotional journey which may make us feel uncomfortable at first, but the result is that our knowledge and practice will improve and continue to develop. FitzPatrick and Spiller (2010) discuss the ways in which compiling a (multi-purpose) teaching portfolio through a reflective process can generate complex emotions among teachers.

In the course of writing journals or any other forms of generating and recording reflection that our initial views of the situation or event change, and we gain a different perspective of something that happened. The questions below can assist us to be more focused in the reflection process:

* Have I (critically) questioned my actions, behaviours and speech? What justification do I have?
* Have I been honest and open with myself?
* Have I learned anything from the experience?
* Have I identified the new learning I need to put in practice?
* What is it exactly that I need to do now?

<http://www.waikato.ac.nz/tdu/pdf/Booklets/2015/ReflectPrac.pdf>

**Recording Lessons:**

Recording your lessons can be an especially interesting technique since it will give you an opportunity to see and hear yourself from another perspective. You may do things or have certain tendencies in class that you not aware of. Recording your lesson is a good way to critically analyze your teaching performance and class presence. You can make either a video an audio recording. Audio recording is easier and is less distracting. It is also sufficient if you’re only concerned about your speech tendencies. You may want to consider analyzing an audio recording if you want to answer some of the following questions:

* How much do I talk?
* How quickly do I talk?
* How loudly do I talk?
* Do I speak clearly?
* How much do students talk?

Video recording may be distracting to both you and your students, but it is useful for showing you your behavioural tendencies while teaching. You may want to consider analyzing a video recording if you want to answer the following questions:

* How do I come across to my students while I teach?
* Where do I face when I teach?
* Do I focus too much on one area of the class or on certain students?
* Do I have any nervous tendencies or habits?

You may think you know the answer to all these questions, but people are often surprised when they hear or see a recording of themselves.

**Student Feedback:**

McMaster currently conducts student course evaluations at the end of each term. It is important, however, to consider seeking student feedback throughout the term in order to determine the students’ levels of learning, learning processes and achievements. Formative assessment activities overlap with learning activities in class – serving as pre-or-post-test during instructional sessions. An example of how this can be achieved could be through short answer questions. Students’ opinions and perspectives add valuable information, and may raise concerns that would otherwise go completely unnoticed. It is better to address a problem right away than to wait for the course to end. After a lesson or activity, ask students to provide you with some feedback. Let students know that their feedback will be kept anonymous; this is to ensure honest feedback. You can guide them with a list of questions you want them to answer, or give them a more open-ended option for giving feedback on whatever they think is important. The difference between this technique and the others is that the first and second stages of Kolb’s Experiential Learning Theory are led by the students (concrete experience, reflective observation), and the third and fourth stages are the responsibility of the instructor (abstract conceptualization, active experimentation). Successful and effective reflection demands a willingness to participate in the process and acknowledge it as a means to improve and develop. The reflection process can assist in identifying areas of success – a strong motivator – but it can also identify challenge areas and this, in itself, can be intimidating.

<http://www.eng.mcmaster.ca/fda/documents/ReflectiveTeachingAndExperientialLearningReference.pdf>

**7.5 Systematic reflection throughout the teaching-learning process**

Teaching is very demanding work. It requires a lot of energy, stamina and fortitude. Among all the physical activity however, it is important to remain focused on what may be identified as the more ‘intellectual’ aspects of the teaching profession. This is significant for several reasons. Arguably the most important of these is your obligation as a beginning teacher or an aspiring teacher to make increasingly well-informed decisions in the context of your everyday practice. This is because teaching is a profession in which demanding situations arise on a daily basis. Frequently there are no right or wrong answers, no procedures to follow, no time or opportunity to consult with supervising staff or colleagues. In some cases you may have the possibility of discussing with and receiving advice about incidents or concerns from appropriate others. Often, however, as a certified teacher (or even as a student teacher), you may simply be advised or expected to use your professional judgement. This may be a reasonable expectation, as it allows you to develop your skills in relation to decision making and problem solving in your specific educational context. However, it does assume that you are well-informed or have some experience of the reflective process. It assumes that you have a framework within which to consider your options and determine any possible action.

Robins et al. (2003) describe reflective practice as a tool that allows teachers, student teachers and teaching assistants to understand themselves, their personal philosophies and the dynamics of their classroom more deeply. While acknowledging the critics who argue that there is little evidence that reflection actually changes behaviour, they propose that the process of engaging in reflection not only provides a personal resource that can be accessed in other similar contexts, but is also a tool that empowers individuals who use it. This is because engagement with the process of focused thinking supports self knowledge and understanding (White, 2004; Wieringa, 2011). The capacity to engage with your professional work in this manner is not always easy. One reason is that classrooms are busy, fast-moving work environments within which pupils of diverse characteristics are engaging in an extremely important undertaking: that of learning new knowledge, skills and strategies. Another is that any framework or other tool to support your professional development is only as beneficial as the user is proficient. In order to develop the skills and competencies of an expert teacher, you need to engage in reflection. Reflective practice, over time, allows you to become skilful in making informed judgements and professional decisions, and is empowering (Robins et al., 2003). Authentic engagement in reflection supports your efforts to become contemplative, to improve your professional competencies and to identify your personal strengths and relative limitations as a teacher. It is because of its potential to impact positively on individual practice that reflection is arguably the most important of the many professional attributes that characterise successful teachers at every stage of their careers (White, 2004)

Gore and Zeichner (1991) propose that each of these four types of reflection is important. They indicate four major aspects of your professional work. You need to ask and reflect on pertinent questions about each of these aspects in order to develop a deep understanding of your classroom interactions. These are some suggestions for questions you might think about in order to gain a holistic understanding of your professional work and your role in supporting successful learning by your students. You will be able to add others yourself.

* Academic reflection:
  + Do I know my content really well?
  + Am I using appropriate pedagogical strategies for my students’ needs?
  + Am I well-organised and resourced in readiness to teach?
  + Have I sequenced the content suitably for my students’ needs and defining characteristics of my discipline?
  + Have I completed the planning cycle with suitable, relevant assessment strategies to evaluate student learning?
  + Have I been innovative and creative in order to engage and sustain students’ interest?
* Social efficacy reflection:
  + Am I implementing what I know from research about teaching this content?
  + Have I considered specific strategies that have proven to increase student academic success?
  + Have I considered any differences in the context and participants used in the research and my cohort and circumstances?
  + Is this evidence-based practice meeting the needs of the students in my class?
* Developmental reflection:
  + Am I providing teaching and learning contexts, tasks and instruction that are suitable and appropriate for the age and stage of my students from a developmental perspective?
  + Have I evaluated my students’ skills and thinking to determine the stages at which each of them is able to engage in different learning contexts?
  + Have I planned suitable instructional and task modifications to accommodate the differences in the students’ thinking, emotional and physical capacities?
  + Have I designed teaching and learning activities that are interesting for diverse groups of students?
  + Have I taken into account and effectively utilised students’ various interests to design lessons and curriculum?
* Social reconstructionist (critical) reflection:
  + What do I believe to be the purpose of education?
  + Do I have specific philosophical beliefs or viewpoints about the values, purposes and functions of education?
  + Have I critically evaluated the statements from my education authorities who articulate the purpose of schooling in my geographical location?
  + Have I considered who determines the curriculum that is designed to meet the nominated purpose of education?
  + Have I considered in what ways the curriculum supports or neglects the learning needs of students from different social, cultural and individual groups?
  + Are there ways in which I can implement the mandatory curricula in my classroom to minimise any disadvantage to particular students or student groups?
  + How can I mitigate any shortcomings in the system to provide more equitable education for all my students?
  + Have I analysed compulsory tests or assessment items to identify bias or prejudice and taken appropriate measures to overcome or to diminish the impact of these where possible?

<https://uk.sagepub.com/sites/default/files/upm-binaries/59229_Sellars.pdf>

**Becoming a critically reflective teacher:**

Whilst understandings and practice of reflection may show some commonality across a range of disciplines and contexts, the addition of the qualifier critical to reflection often signifies a deeper consideration and focus upon:

* recognizing and appreciating difference and diversity from a number of angles (for example race, ethnicity, gender, class, culture, religion, disability, age) and how these factors impact on learning and teaching
* challenging and dealing with the taken for granted assumptions about teaching, learning, learners, and the learning environment
* identifying and negotiating how power operates in an always contested learning and teaching context
* nurturing, facilitating and enabling a learning and teaching environment which challenges students to think critically and morally about a variety of issues
* initiating socially engaged lifelong and transformative learning

Reflective practice is more than thinking about the nuts and bolts of teaching, it involves evaluating the processes of teaching and learning, and questioning why we do something rather than how. Importantly it involves learning from this process and initiating change when and where required. This is an iterative process with infinitely connected lines and loops.

Becoming a critically reflective teacher involves sitting back and reflecting upon your own teaching and personal assumptions against your experiences and knowledge of educational theory and pedagogy. So it involves you also being a critically reflective learner. It also involves teaching students to become critically reflective. The process of comparison involved in critical reflection should be able to highlight any differences between theory and practice, and thereby signal points of re-adjustment and open up avenues for transformative educational change and lifelong learning. The challenge presented by turning back onto ourselves in order to effect change and facilitate deeper approaches to learning and teaching need not be an onerous one. But it does insist that we carefully consider our various effects upon the learning and teaching context, and our responsibilities to learners, university life and society.

**The student perspective:**

Ramsden (2003) suggests that, "good teachers are always evaluating themselves" and further that the lessons learned about effective teaching from an examination of how students perceive it should be applied to the process of evaluating and improving instruction….there is an exact parallel between (the satisfactory methods widely used for) measuring teaching quality and unsatisfactory ways of assessing students. (Ramsden, 2003: 219) This brings to the fore an essential question: What has been the effect of my teaching on the quality of my students' learning?

Critically reflective teachers are always thinking about how they influence and effect the learning and teaching environment, and importantly upon the likely effects of their teaching and presence upon the quality of their students' learning. A critically reflective educator will ‘frame’ their reflections from a student perspective and will embark upon a deliberate process of gathering information and evidence, and finding out how students’ are experiencing learning and teaching. Both evaluation and reflection are more productive when reinforced by evidence. Thinking about learning from the students’ perspective requires us to:

* appreciate how students perceive our intentions as teachers and assessors
* understand the institution's intentions towards us in terms of evaluation
* design and use methods of assessment that will contribute to deeper student learning
* choose evaluation methods which contribute to the development and improvement of learning and teaching

**Facilitating student reflection in group work:**

Some people are better reflectors than others and neither staff nor students possess innate skills to reflect. Many people when asked to reflect will simply describe what has happened, others will delve deeply into their own feelings and responses to given contexts thus engaging in more critical forms of reflection. There are also issues related to language ability, gender, ethnicity, and socio-economic status which may enhance or limit a persons reflective ability, desire or confidence to reflect.

Although we would like to assume that all staff and students can or do reflect critically, regularly, and effectively upon their learning and teaching contexts their ability to do so will vary greatly. We should not expect all students to be able to reflect when asked to do it, nor will they all be able to do it in the ways that we would like them to. Many will enter with limited skills and abilities and will require guidance to become a good reflector, just as some of us may require additional guidance on reflective practices. Teaching students how to reflect is consistently neglected in theoretical literature on reflection because it assumes that we all know how to reflect. Below we offer many resources and additional readings in order to further develop reflection skills, as well as some ideas for helping students to reflect, and a list of learning, teaching and assessment methods commonly used to facilitate student reflection.

**Tips on starting to reflect:**

If you desire to either more effectively or consciously reflect upon your own teaching practices and contexts OR wish to provide learning and teaching and/or assessment opportunities that require students to reflect upon their own learning or professional experiences and contexts, then you should:

* consider your own ideas, beliefs, and values about reflection, as well as your current level of reflective skills and abilities
* avoid assuming that everyone knows what reflection is or how to do it
* research, gather information, appreciate and understand the diverse definitions, purposes, practices, processes and desired outcomes of reflection in the learning and teaching contexts (for both teachers and learners, and others such as employers, peers, managers)
* develop a clear picture of how reflection can enable you to continuously monitor and evaluate your teaching, and your learning and teaching environment
* commit to an ongoing and strategic process of personal and professional reflection, and do it! (use formal and informal methods)
* clearly explain the what, why and how of reflection to students
* facilitate teaching and classroom procedures and practices which allow students to learn how to develop skills in order to become reflective (practice, practice, practice!)
* regularly reflect upon your own work, teaching styles and methods, assumptions about students, the learning process (and the like)
* reflect upon and evaluate the effectiveness of your reflection and evaluation schedules, methods, and purposes

Basically, if you would like to develop more reflective skills in yourself or your students, then you will have to learn to, teach students to, and then practice, practice, practice!

**Questions to ask yourself in order to guide reflection:**

The reflective teacher develops many questions to choose from to serve as objects of reflection. Such as …

* What is it about my work and the learning and teaching context that I want to know about?
* How do I find out about these things?
* Who will I ask about these things?

**Critical reflection: learning and teaching practices/methods:**

The literature on reflection is extensive with many authors defining, explaining, using and advocating a diverse range of constructivist approaches that appear to have the worthwhile intention of drawing theory into practice (Donaghy and Morss, 2000; Fisher, 2003; Hankes, 1996; Jones, 2004; McCollum, 2002; Moore, 2004; Price, 2004; Rodgers, 2002; Spalding and Wilson, 2002). There is an assumption within the literature that there are different levels of reflection and different learning and teaching practices that may develop deeper understanding. The table below highlights a variety of quite specific reflective strategies and methods expressed in the literature. From their different disciplines and contexts, the authors of this work discuss the use of reflection either to engage their students in deeper learning or to cultivate their capacity as enabled, self aware practitioners in their professions (see also Fisher, 2003; Gay and Kirkland, 2003; Jones, 2004; Larrivee, 2000; Spalding and Wilson, 2002; Vavrus, 2002).

|  |  |
| --- | --- |
| **Writing:**  Collaborative journaling  Diary  Personal journals  Narrative  Biography  Autobiography  Creative writing  Discourse analysis  Reflective writing (free, independent, open ended, focussed, supported)  Portfolio  Action research  Questionnaire  Talking  Role simulations  Debates  Discussion (understandings and practices) | **Questioning:**  Practical inquiry  Critical incident analysis  Developing higher order skills  Teacher directed/led  Guided reflection  Values clarification  Problem solving  Childhood memory work  Reflection through spirituality  Encouraging voice  Reading  Student-created case studies  Stimulated recall using video and audiotape  **Other**  Artifact collection  Action learning  Metaphor use |
| **Peer/work**  Peer coaching/mentoring  Peer observation and feedback  Work based learning  Systematic observation | **Self (student/teacher)**  Auto-ethnography  Self assessment, self reflection  Reflecting aloud  Self disclosure, confession  Making time to reflect |

<https://sydney.edu.au/education_social_work/groupwork/docs/Reflection.pdf>

**Unit 8 Models of Reflective Practices**

**Models of Reflective Practices:**

8.1 Schon’s Model

8.2 Gibbs’s Model

8.3 kolb model

8.4 Johns Ten “Cs” model

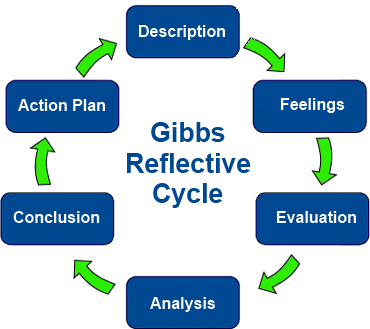
**8.1 Schon’s Model**

**Reflection-in, and -on, –action:**

Recalling that Schön’s (1987, p. 6) inquiry pivoted on the way in which professionals engage with “indeterminate zones of practice”, those that present a practitioner with 11 Jo Trelfa unique dynamics, uncertainty and value dilemmas, his focus, then, was on what he called the “swampy lowland where situations are confusing ‘messes’ incapable of technical solution” (1983, p. 42). He contrasted this with the “high ground” where issues and decisions are manageable and can be solved or resolved through prescribed technique and guidelines. Encountering such situations, Schön (1983, p. 50) posited that practitioners reflect “on the understandings which have been implicit” in their ‘actions and understandings’ through a process comprising the elements of ‘surface, criticize, restructure and embody in further action’. They do this in two ways, through reflection-in-action and reflection-on-action. The former means teachers “think about doing something while doing it” (1983, p. 54), so in “a stretch of time within which it is still possible to make a difference to the outcomes of action (Schön, 1995, np), whilst the latter is described as: in the relative tranquillity of a post-mortem, they think back on a project they have undertaken, a situation they have lived through, and they explore the understandings thy have bought to their handling of the case. (Schön, 1983, p. 61). Under the overarching Idea of a teacher ‘learning to plan, execute, accept responsibility for, and critically evaluate their actions’ (Barnett, 1990, p. 76), the overwhelming weight of attention in literature and professional programmes is on reflection-on-action. It is done so with the intention that it will enhance teaching practices in the moment, facilitated through the activities of writing and dialogue emphasised above. <http://collections.crest.ac.uk/15355/1/what_is_reflective_practice.pdf>

**8.2 Gibbs’s Model**

Gibbs’ reflective cycle Gibbs’ reflective cycle is a popular model for reflection. The model includes 6 stages of reflection and is presented below as cited in Dye (2011, p. 230).



**Description:**

In this section, you need to explain what you are reflecting on to your reader. Perhaps include background information, such as what it is you’re reflecting on and tell the reader who was involved. It’s important to remember to keep the information provided relevant and to-the-point. Don’t waffle on about details that aren’t required – if you do this, you’re just using up valuable words that you’ll get minimal marks for.

**Feelings:**

Discuss your feelings and thoughts about the experience. Consider questions such as: How did you feel at the time? What did you think at the time? What did you think about the incident afterwards? You can discuss your emotions honestly, but make sure to remember at all times that this is an academic piece of writing, so avoid ‘chatty’ text.

**Evaluation:**

For your evaluation, discuss how well you think things went. Perhaps think about: How did you react to the situation, and how did other people react? What was good and what was bad about the experience? If you are writing about a difficult incident, did you feel that the situation was resolved afterwards? Why/why not? This section is a good place to include the theory and the work of other authors – remember it is important to include references in reflective writing.

**Analysis:**

In your analysis, consider what might have helped or hindered the event. You also have the opportunity here to compare your experience with the literature you have read. This section is very important, particularly for higher level writing. Many students receive poor marks for reflective assignments for not bringing the theory and experience together.

**Conclusion:**

In your conclusion, it is important to acknowledge: whether you could have done anything else; what you have learned from the experience; consider whether you could you have responded in a different way. If you are talking about a positive experience…discuss whether you would do the same again to ensure a positive outcome. Also consider if there is anything you could change to improve things even further. If the incident was negative…tell your reader how you could have avoided it happening and also how you could make sure it doesn’t happen again.

**Action plan:**

Action plans sum up anything you need to know and do to improve for next time. Perhaps you feel that you need to learn about something or attend some training. Could you ask your tutor or placement supervisor for some advice? What can you do which means you will be better equipped to cope with a similar event?

**Using Gibbs’ reflective model in reflective writing:**

The following text is an example of a piece of reflective writing, following Gibbs’ model. The task was to write a reflection about an incident which occurred during the first few weeks of a teaching placement (1000 words). Please note that the references used are fictional. If you are not a student teacher, search on your subject resources pages to find resources that explore reflective writing in your subject discipline.

**Description:**

I am currently on a teaching practice placement in an adult education college in the south-west of England, learning how to teach GCSE maths to various groups of adults. As my placement is in the early stages, I am mainly assisting the class tutors and have just started planning and delivering a small part of each lesson. The incident occurred in an evening class during which I was due to deliver my very first session. The class tutor had been teaching the learners about fractions, and my task was to continue with this instruction, looking specifically at how to multiply two fractions. However, when I was due to teach the session, I got to the whiteboard and became so nervous that I struggled to speak to the group. I felt myself visibly shaking and was unable to articulate my first sentence coherently. The students were quite understanding, as they are all mature students who are aware that I am new to teaching and am nervous, but the class teacher was unsympathetic and responded by taking over the lesson whilst I sat at the back of the room trying not to cry. I left the session as soon as the class was over, and did not speak to anyone.

**Feelings:**

I felt extremely miserable at the time and even considered leaving my teacher training course. I was also embarrassed and upset by my own inability to speak in front of the group, but I was also extremely angry with the class teacher for her response in the presence of the learners. I felt afterwards that she had not given me sufficient time to compose myself, and that she should have allowed me to address my nerves. The situation left me very distressed and I rang in sick the following week; it was only when I reflected on the experience that I decided I needed to speak to the placement supervisor. I also realised later that feeling nervous is a natural reaction to speaking in public (Jones, 2000) which made me feel less embarrassed.

**Evaluation:**

At the time, I did not feel that the situation had been resolved at all. I very deliberately left at the end of the class without speaking to the class teacher or the learners. However, after speaking to a fellow trainee about his own experience, I felt much more positive. I realised that everyone feels nervous before their first few classes. This is clear in the relevant literature, as Greene (2006, p. 43) points out, saying that nine out of ten new trainee teachers found their first session “incredibly daunting”. It appears that most trainee teachers have moments of being “tongue-tied” and “losing their way with the lesson” (Parbold, 1998, p. 223).

**Analysis:**

The situation was made worse by both my own actions and those of the class teacher. I feel that I should have stood up to her, rather than letting her take control of the lesson, and that I should have spoken to her immediately after the lesson about how I was feeling. Dealing with situations like this immediately is preferable, as Cooper (2001) points out. Instead, I spoke to my placement supervisor several days later, and did not see the class teacher again until a formal meeting consisting of myself, the teacher and the supervisor. Daynes and Farris (2003) say that, by not dealing with situations immediately and personally, and instead taking it to an authority figure, the situation can be made worse. The class teacher could have felt that she was being “ganged up on” (Thomas, 2003, p. 22), which could lead to future problems. The teacher’s actions also made the situation worse, because she did not give me time to overcome my fears and she deliberately embarrassed me in front of the class. She claimed that she had thought she was helping me to overcome my anxieties, but I do not believe that to be the case. However, as we only spoke about the incident over a week later in the meeting with the supervisor, she rightly argued that I should have said something to her at the time.

**Conclusion:**

In retrospect, I would do several things differently. I should have spoken to the class teacher immediately after the session and voiced my opinions. I should also have been more assertive by advising the tutor that I could continue with the lesson. However, the incident made me realise the importance of building up a relationship with the teacher, a skill that Jackson (1999) stresses as fundamental to a successful placement. I feel that, had I developed a professional relationship with the teacher in the preceding weeks, would have been able to explain how nervous I was beforehand. This would have provided the opportunity to discuss strategies for dealing with nerves and perhaps the incident could have been avoided entirely.

**Action Plan:**

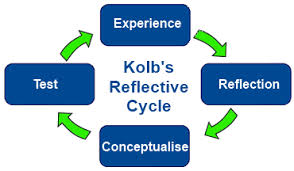
In future, I will ensure that I build up a relationship with colleagues. I am working alongside several different teachers during my placement, and I intend to speak to each of them about my nerves. I have already had a beneficial conversation with one teacher and together we have developed a programme of team-teaching for the next few weeks so that I do not feel so pressurised. I plan to do this with the other class teachers, as it will help them to understand how I feel. I also need to speak to my fellow trainees more often about how they feel, as I think I will be able to learn from them. In terms of training, I have booked onto a presentation skills workshop at University, and intend to follow it up by attending the practise sessions afterwards. This experience has made me realise that I need to gain more confidence with presenting and I feel addressing my presentation skills will help me to do this. Extract adapted from: [www.salford.ac.uk](http://www.salford.ac.uk)

<https://my.cumbria.ac.uk/media/ReflectiveCycleGibbs.pdf>

**8.3 Kolb Model**

"Experiential learning theory defines learning as the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience"

Kolb’s experiential learning theory is represented as a four stage cyclical process of learning. These stages are: concrete experience, reflective observation, abstract conceptualization and active experimentation.



**Concrete Experience:** This is the first step of the experiential learning process. Concrete Experience sees the learner involved in a new experience or situation. This also includes a reinterpretation of an existing experience.

**Reflective Observation:** The second step of Kolb’s theory, reflective observation, involves systematic reflection on the new experience. This is an analytical step in which the learner consciously thinks about what they have just experienced. A particularly important aspect of this step is the realization of inconsistencies between experience and understanding.

**Abstract Conceptualization:** The learner delves deeper into their thinking about the subject. In this step, the learner constructs a new idea, or modifies an existing concept to explain their observations.

**Active Experimentation:** The final step of the process involves using these new theories to solve problems and make decisions. By applying their newly-conceived understanding of the world around them, they are demonstrating their newfound knowledge. The process enters a new cycle when the learner uses this experimentation

In essence, effective experiential learning occurs when: 1) The learner has a concrete experience 2) The learner reflects upon their new experience 3) The learner analyzes their reflections and observations and creates their own conclusions 4) The learner uses these conclusions to test future situations After the fourth step, the process repeats itself on new experiences. For effective experiential learning to take place, the whole cycle must be completed, in the order described.

(McLeod,2010) <http://www.eng.mcmaster.ca/fda/documents/ReflectiveTeachingAndExperientialLearningReference.pdf>

**8.4 Johns Ten “Cs” model**

As a guide to its essential nature, reflection can be viewed as ten C’s of reflection. Johns.C (2000b)

* Commitment – believing that self and practice matter; accepting responsibility for self; the openness, curiosity and willingness to challenge normative ways of responding to situations.
* Contradiction – exposing and understanding the contradiction between what is desirable and actual practice.
* Conflict – harnessing the energy of conflict within contradiction to become empowered to take appropriate action.
* Challenge and Support – confronting the practitioner’s normative attitudes, beliefs and actions in ways that do not threaten the practitioner.
* Catharsis – working through negative feelings.
* Creation – moving beyond self to see and understand new ways of viewing and responding to practice.
* Connection – connecting new insight within the real world of practice; appreciating the temporality over reality.
* Caring – realising desirable practice as everyday reality.
* Congruence - reflection as a mirror for caring.
* Constructing Personal Knowing in practice – weaving personal knowing with relevant extant theory in constructing knowledge.

<https://www.nottingham.ac.uk/nmp/sonet/rlos/placs/critical_reflection/pdf/driscoll_paramedic_poem.pdf>

**Books Recommended**

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