CHAPTER - II

THEORETICAL OVERVIEW

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2.1 Introduction

Education is the process of making an individual and thus builds on the capacity of children for employment, community living and citizenship. It is one of the most commanding instruments in retrieving information by moulding the social fibre of a person and captures the opportunities to reconcile human prosperity and to structure the prospect of a nation. Educational practices are intimately related to the teaching learning effectiveness where teachers are the critical force to structure the classroom practices and to construct the students’ knowledge through various learning strategies such as co-operative learning; discourse and problem solving for promoting their thinking skills and to expand their thoughts from lower level thinking to higher level thinking. To encourage critical reflection among children need prompts to organize their thinking in such a way and structure it in to big ideas, categorizes information in to meaningful net works and provide connections to previously stored information. In making a better sense of teaching and learning the exploration of reflective practice is inevitable approach to develop critical reflection in teachers and accrediting one’s own experiences. And it is in this context reflection can be a highly effective way to enhance the quality of teaching and learning. Moreover teaching is a highly skilled activity which requires teachers to anticipate and respond to the complexities of the classroom, to make judgment and to act upon them, and to be aware of the consequences of their actions. Reflective practice is an essential component in helping pre-service teachers to learn from their experiences and grow as teachers (Rogers, 2011).

2.2 Developing the Notion of Reflective Practices

The notion of Reflective practice has received wide attention over decades and deep rooted in historically. Numerous educators, philosophers, theorists and researchers have contributed to the body of this knowledge and revealed the common themes. John Dewey is frequently recognized as the modern day originator of the concept of reflection that viewed as an active thought process aimed at understanding and subsequent development, although he drew on the ideas of earlier educators such as Aristotle, Plato and Confucius. To these educators’ reflection served as the pivot to transform lives through extracting meaning from one’s own inner experiences.
The collective literature on reflective thinking reveals numerous common themes and it is depicted in the table 2.1.

Table 2.1

*Significant Contributions to Thought on Reflective Practices*

<table>
<thead>
<tr>
<th>Educator/Philosopher</th>
<th>Contributions to Thought on Reflective Practices</th>
</tr>
</thead>
</table>
| **Buddha (624, BC)** | • A core teaching involves awareness of impermanence and teaching or transience or change. Because change is always occurring, an emphasis is placed on being fully aware and mindful of the present moment.  
• Buddhism emphasizes the direct experiences of reality. 'Direct practice realization, not intellectual research, brings about insight. Our own life is the instrument through which we experiment with truth' (as cited in Jennifer et al, 2006) |
| **Socrates (471, BC and 469, BC)** | • The Socratic method has led to a theory of education grounded in skepticism and a “dialectic” approach of questioning and answering with goal to build more “consistent thinking with a view to consistent action “as a goal |
| **Dewey (1933)** | • Views the purpose of education as promoting intellectual, social, and moral growth of individual in order to create a strong democratic society.  
• Reflective Thinking involves a systematic, scientific process of describing experience, articulating questions that arise from experience, generating hypotheses which include considering sources outside oneself, and taking intelligent action to test hypotheses. |
| **Zeichner and Liston (1996)** | • Argues the essential role of critical reflection in education, emphasizing those educators must critically examine how instructional and other school practices contribute to equal society and to the establishment of a just and human society.  
• Challenges the assumption that education will necessarily be better if teachers reflect, because reflection on validating and justifying current practices are harmful to students. |
| **Osterman and Kottkamp (2004)** | • Emphasis on thought and action as integral processes but extends beyond the limit to consider how context and culture shape, both thought and action respects |
the autonomy of the learner but recognize value of incorporating lessons drawn from theory, research, and practice.

- Defines Reflective practice as experiential learning cycle, including problem identification observation and analysis, abstract reconceptualisation, and active experimentation; emphasizes data gathering as the key stone of reflective practice.

Thought about reflection, Dewey introduced it as a form of problem solving that chained numerous ideas together by connecting each idea with its predecessor in order to resolve an issue. According to him, reflection involves not simply a sequencing of ideas, but they are used to explore more critically the underlying ideas in teaching experiences and to build the understanding of learning and teaching for professional development. Thus reflection moves from a stage of uncertainty, doubt and perplexity to a goal of mastering the problematic situation or gaining satisfaction when one finds material that will resolve the issue.

Dewey (1933) also has suggested that teachers who want to be reflective practitioners must possess three characteristics (or attitudes). They must be ‘open minded, responsible and wholehearted’. Further they are described that ‘open-minded’ is to be willing to listen to more than one side of an issue and to give attention to attentive views. To be ‘responsible’ is to carefully consider the consequences our actions, as they impact our students personally, intellectually, and socially and, wholehearted’ is to be so committed to an idea or project that they can overcome fears and uncertainties in an effort to make meaningful personal and professional change. As teachers continue to reflect on their work, they will become whole heartedly more open minded because they have taken the responsibility to improve their teaching (Farrell, 2004).

There is no universally accepted definition of reflective practice but a multitude of perspectives. However several attempts have been made to provide a clear, concise definition of reflection. With the result of an academic preview of reflection a reflective thought has been emerged. The educational theories of Dewey (1933), Schon, (1987), and Kolb (1984) provide the fundamental principles while
Brockbank and McGill (1998), Moon (1999), Kembler et al. (1999), and Farrell (2013) have extended and enhanced the understanding of reflection.

2.2.1. A Mnemonic strategy to synthesize key learning

In order to make clear stances on reflective practices in teacher education programme, it is important that the teacher educators and student practitioners examine and understanding of the term ‘REFLECTION’ and to reflect themselves as agents of change, and also capable of understanding not only what is, but also working to create what should be. Moreover the teachers highlight the paradoxes inherent in the ongoing design, implementation and evolution of reflective practices and to engage in reflection and learning. The purpose of reflection and learning is in some way take action that improves teaching and learning for the ultimate benefit of students. To synthesize the key learning there is developed the strategy as R-E-F-L-E-C-T-I-O-N Mnemonic. It is depicted in the figure 2.1.

![R-E-F-L-E-C-T-I-O-N Mnemonic](image)

**Figure 2.1. R-E-F-L-E-C-T-I-O-N Mnemonic**

<table>
<thead>
<tr>
<th>R</th>
<th>E</th>
<th>F</th>
<th>L</th>
<th>E</th>
<th>C</th>
<th>T</th>
<th>I</th>
<th>O</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R</strong>: Relationships are first</td>
<td><strong>E</strong>: Expand options through dialogue</td>
<td><strong>F</strong>: Focus on learning</td>
<td><strong>L</strong>: Leadership accelerates reflective Practice</td>
<td><strong>E</strong>: Energy is required for any system to grow</td>
<td><strong>C</strong>: Courage is needed to reflect and act</td>
<td><strong>T</strong>: Trust takes time</td>
<td><strong>I</strong>: Inside out</td>
<td><strong>O</strong>: Outside-in</td>
<td><strong>N</strong>: Nurture people and ideas</td>
</tr>
</tbody>
</table>
The above figure explains that it is establishing a positive relationship and focused on student learning is an essential foundation for reflective practice. In the same way creative and divergent thoughts are emerged through dialogues, and share their perspectives for shaping future directions and moving forward with important work. Similarly the core of the reflective practice is the desire and commitment to continuously learn so that practice improves and students learn at higher levels. More over leadership is an essential organizational resource that accelerates reflective practice. With the result that reflection creates energy by leading to new discoveries and insights about practice and the energy in schools emerges from people who are meaningfully engaged in teaching, leading, and learning process. Likewise courage is the internal capacity that supports taking action and making a commitment to reflective practice on a personal basis. So as the trusting relationships are the foundation for learning together, they allow themselves to be vulnerable and that it is requisite for learning. Further the process of inside out change is created reflection and it is an internal capacity that is tapped by genuine desire to learn and grow. Being a reflective practitioner also requires being open to outside influences and thus reflection is a process for making a sense of both internal and external influences and for determining priorities for action and finally nurture their creativity and spirit and allow them to bring their unique contributions and gifts to the teaching and learning process.

2.2.2 Theory of Action for Reflective Practice

Reflective practice has the potential to renew one’s sense of optimism, commitment, and efficacy as the teacher learn how to support meaningful professional growth, shape culture of learning and make important changes in students learning. Drawing on the perspectives of the reflective practices we can identify the following elements of a theory of action that maps the linkages between thinking, action and student learning. The linkages of theory of action are briefly described and also it is shown in the following figure 2.2.
Reflective practices require a deliberate ‘pause’ slowing down to create a space. An open perspective or open-mindedness means recognizing that there are multiple ways to view particular circumstances or events and extending learning beyond the immediate sphere. An intentional pause is precursor to conscious deliberate thought, response and action.

**Openness:** An open perspective and open heart is an important dimension of reflective practice framework. Openness creates the possibility of inquiry, the state in which questions about practices are invited and genuinely engaged.

**Inquiry:** Inquiry can be prompted by a dilemma, puzzle, and surprise or feeling. Doubt, perplexity, and tentativeness are part of an inquiry cycle (Dewey, 1933).

**Thinking:** Questions prompt further thinking—the active, deliberate and conscious processing of thoughts for examining goals, beliefs, and practices. Our theory of action involves thinking about goals, thinking about beliefs, and thinking about practices.
Learning and action: The intended outgrowth of deliberate thinking is learning by the reflective person. Practitioners gain new or deeper insights that lead to actions aimed at improving teaching learning process to benefit students. Understanding provides the basis for considering new forms of action. Application of knowledge action-is essential in the reflective practice cycle (Dewey, 1933; Smith, 1991)

Enhanced student learning: The ultimate desired outcome of reflective practice is of course, enhanced students’ capacity to think their motivations to learn, and their effectiveness in engaging constructively with others contributing to the world around them, along with more traditionally definite measures of learning.

2.2.3 Reflective practice spiral learning from the inside out

The learning and positive growth that individuals experience from engaging in reflective practices provides an informed, experiential foundation on which to advocate and commit to expanding the practices of reflection beyond themselves. In this stance reflective practice spiral presents one way to think about initiating and expanding efforts to embed the practices and it reflects with oneself and that learning occurs from the inside out. The spiral that has four levels, beginning with the innermost level of individual reflective practice and extending outward to the partner level, then the small group or team level, and finally to the outermost circle, the school wide level of reflective practices. The spiral that moves through the levels represents the interconnectedness among the levels, resulting in a cumulative effect on school wide practices and learning. The reflective practice spiral is presented in the figure 2.3.

*Figure 2.3. The Reflective Practice Spiral*
The theoretical overview explicated the development of individual reflective capacities with partners and in small groups or teams. A critical mass of individuals who have experienced positive outcomes from their own reflective activities and from reflection within groups and teams can better support widespread adoption.

Korthagan (2004) conceptualized reflective practice as professional development strategy and makes a clear distinction between action, learning and reflection indicating that learning improves the quality of action, and action exposes systems’ failure, thus creating learning needs. This process is also known as the spiral of professional development which represents the process of action, learning from that action, and improving on the action which will further reveal new areas of learning needs.

2.2.4 Potential benefits of reflective practices

Reflective practice has thus the potential to significantly improve education if its foundations, assumptions and rigorous processes are honoured. Described below are the benefits that can be realized when reflective practice is implemented in schools.

- Guidance for new career, teachers or educators in new roles
- Continuous learning through integration of teaching dimensions
- Bridges theory and practice and consideration of multiple perspectives
- More productive engagement of conflict
- New context knowledge for immediate application
- Growth in cultural awareness and competence
- Deepened understanding of role and identity
- Individual and collective sense of efficacy
- Great professionalism and voice
2.3 Conceptualization of the Creative Frame Works of Reflective Practices

Reflectivity in its dynamic form can be identified as comprising of three prominent constructs. They are reflective thinking, reflective learning, and reflective practices. Reflective thinking is the heart of any intellectual process and stimuli for reflective judgment and enables the practitioners to thoughtfully examine conditions and attitudes which impede student achievement. Reflective thinking builds an awareness of problematic zones, convinces one of possibilities to solve them and provides the grounds for supporting evidences and a search for feasible conclusions. As a result of such mental engagements, meaningful knowledge gets constructed and the individual is placed on the road of acquiring entrepreneurial skills of decision making, problem solving, leadership quality, communicative skill and the like.

Reflection helps students to develop higher order thinking skills and decision making capabilities by prompting them for:

- Relate new knowledge to their prior understanding.
- Thinking in both abstract and concrete terms.
- Apply specific strategy to novel tasks.
- Understand their own thinking and learning strategies.
- Activate efficient decisions managing capacity in the learning episodes.
- Exhibit professionalism in their practices.

Reflection as deliberating among competency and research oriented stands of teaching, and that refers to the capacity of a teacher to think creatively, imaginatively and at times, self critically about classroom practice.

Dewey (1933) and Schon (1987) delineate a cyclical process approach to reflective thinking. The steps of reflective thinking are depicted in the figure 2.4.
In the figure 2.4, it is described that the first step to reflective thinking involves a problematic situation to identify the initial step of reflection. A second in the process is to step back from the problem may be framed or reframed. The problem is linked to past events in an attempt to make sense of the problem and to search for possible solutions in the reflective thinkers’ repertoire. The solutions are systematically tested with subsequent observation and further experimentation and then judgments are made relative to the level of success of the intervention. Evaluation, the next stage in the process is the review of the implementation process and the consequence of the solution. Thus reflective thinking develops the expertise and insights for the intelligent organization of syntactic stages of knowledge pyramid through connecting, sharing and structuring that accumulate into wisdom.

The outcome of reflective thinking constructs reflective learning which is problem raising and problem solving and placing a student in a state of doubt perplexity or mental difficulty so as to prompt him to search hunt and inquire extensively in order to resolve the doubt and dispose the perplexity. It requires an exploration of past experiences, attention of feelings and re examination of information that would facilitate the emergence of appropriate solutions and better understanding of concepts.

Reflective practice is a process that empowers and motivates individuals and groups’ theory and ongoing process of professional development. In this process, as
students begin to envision new possibilities and work together in different ways to achieve newly defined goals, the reflective practice in grass root approach is tended to change. The vision of reflective teaching must, therefore, be a pure and unambiguous one where social reflections remain un-adultured and expressed in serene purposes for teachers development. Such a vision should embrace the following ends-in view of reflective teaching by teachers who:

1) Critically examines the relative importance of teaching items.

2) Allows pupils to exercise their own diverse reflective thinking patterns.

3) Communicates with pupils to the best interest of the individual in relation to the society and vice-versa.

4) Analyses the items of concepts related to reflective thinking and expressions.

5) Widens the scope for translating psycho-social and socio aesthetic vision of reflective teaching.

6) Explores further possibilities of refinement of thinking for better intellectual and social development.

As individual reflect on their learning they gain important information about how they perceive the efficacy of their planning, experimenting, data gathering, assessment and self modification. These experiences provide opportunities to practice the habit of continuous growth through reflection, called as the reflective practice spiral. It is in a sense, a professionalized form of reflective learning. The organizational perspective of reflective practice is a powerful norm that is required for continuous improvement of teaching and learning practices that result in high levels of student achievement. Reflective practice is the means by which learning, renewal and growth continue throughout the development of education. In educational literature Dewey and Schon are two of the most cited contributors to foundational concepts of reflective practices.

Though systematic inquiry and analysis is a way for individuals create meaningful and enduring change by changing themselves, reflective practice requires an environment of support. It requires an organizational climate that encourages thus and openness of communication, it requires people to be willing to analyze their own
behaviour and explore thoughts feelings and actions. Reflective practice as human resource strategies enhances individual learning and organization. It provides information needed for people to effect positive changes in performance. It also respects the right of individual to exercise self direction and even more, enhances their ability to exercise control over their own learning and their own actions.

Educators need to stress in reflection which is an important part of any learning and this may mean that there is a need for greater specificity and precision in the learning outcomes of modules. Because reflection is part of the thought process, there is a potential danger that academics and educators assume that all students are automatically become reflective learners. But studies reveal that reflection does not occur by chance; it has to be fostered through specific exercises, techniques and tools.

2.3.1 Different Approaches to Reflective practices

There are four major approaches to the study of reflective practice. The questions for self analysis can be schematically represented as follows. The approach to reflective practice begins with what the teacher actually does in a classroom method.

Table 2.2

*Different Approaches to Reflective Practices*

<table>
<thead>
<tr>
<th>Reflection type</th>
<th>Content of reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflection-in-action Schon (1987)</td>
<td>Making decisions, events in the classrooms as they happen</td>
</tr>
<tr>
<td>Reflection on action Halton and Smith (1995)</td>
<td>Thinking about one’s teaching after the class; giving reasons for one’s actions</td>
</tr>
<tr>
<td>Reflection for Action Killion and Todnem (1991)</td>
<td>Proactive thinking in order to guide future action</td>
</tr>
<tr>
<td>Action research Carr and Kemmis (1986)</td>
<td>Investigating in detail one topic related to one’s classroom teaching</td>
</tr>
<tr>
<td>Cochran-Smith and Lyte (2001)</td>
<td></td>
</tr>
</tbody>
</table>
2.3.1.1 **Reflection-in-action**: This practice requires that the teacher employs a kind of knowing-in-action (Schon, 1987). According to Schon, a kind of knowing-in-action occurs when we recognize a face in a crowd without “listening,” piecing together separate features.

2.3.1.2 **Reflection-on-action**: It involves thinking back on what was done to discover how knowing-in-action may have contributed to an unexpected action (Halton & Smith, 1995; Schon, 1987). Here teachers reflect on their classes that they have finished.

2.3.1.3 **Reflection-for-action**: It is different from the previous type of reflection in that it is proactive in nature. Killion and Todnem (1991) argue that reflection-for-action is the desired outcome of both previous types of reflection; they say that teachers undertake reflection, not so much revisit the past or to become aware of the metacognitive process one is experiencing but to guide future action. Teachers can prepare for the future by using knowledge from what happened during class and what they reflected after class.

2.3.1.4 **Action Research and Reflective practices**: One of the most widely recognized and researched ways to systematically reflect on improving practice is action research. It is defined as a disciplined process of inquiry conducted by and for those taking the action. Action research is one answer to the problematic reality that teacher’s voices are absent from the research literature on teaching (Zeichner & Liston, 1996). It provides the means for teachers to incorporate diverse elements into their instruction, and to organize their work so that they effectively accomplish the demanding task of teaching.

The primary reason for engaging in action research is to assist the actor in improving and refining his or her actions. Action research is a structured way to promote reflection on practice and contribute the overall development of a professional learning culture in schools. Sagar (2000) describes a seven step action research process that ‘becomes an endless cycle for the inquiring teacher’. The seven steps are provided in figure 2.5.
2.4 Reflective Practices: Some Models

Frame works for teachers that assist practitioners in unleashing and eliciting self explanation have been widely researched and a few prominent facilitative modes are presented here.

2.4.1 Van Manen’s Type 3 Mode of Reflection (2002)

In the model the networking of reflection focused on three types’ namely, re collective reflection, active or interactive reflection, and anticipatory reflection. Here the learners are encouraged to mind the past experiences to evolve deeper and new insights and to indulge in discussions during learning process and the reflective practitioners who reflect in action for their constant decision making which culminates in the framing of action plans with a vision of its future consequences. The model is depicted in figure 2.6.
2.4.2 Jay and Johnson’s accelerated levels of reflection (2002)

Jay and Johnson (2002) have outlined a systematic classification of reflective thought profiling three dimensions (cited in Farrell, 2004) as in figure 2.7.
The frame work sketches the three dimensions of reflective thought in different levels. The initial stage involves the descriptive reflection where practitioners and learners describing the situation and then thinking about the problem and finally looking at all the possible perspectives of a problematic situation at all of the players involves facilitator, learner, learning environment, institution and the society.

2.4.5 The Farrell Model of Reflective Practices

Farell, (2004) has presented the model of reflective practice consisting of five components. The five core elements are interconnected- and one builds on the other, and all should be considered as a whole. It is important to mention that teachers reflecting alone, pairs or as members of teams or groups can all adapt this model to suit their own needs. The model is depicted in the figure 2.8.

![Farrell model of reflective practices](image)

*Figure 2.8. Farrell model of reflective practices*

2.5 Developing the Skills and Attributes of a Reflective Practitioner

2.5.1 Componential Representation of Reflective Practices

In order to develop the skills and attributes of student teachers as reflective practitioners the investigator adopted some professional competencies which are applicable to all stages of practitioners learning including initial teacher education. The comprehensive frame work of core components of reflective practices was developed by DyMonke and Harrison (2009) and its merits need attention because
they bring together the various views of reflective practices. The core components of competencies necessary for good practices are observation, communication, judgment and strategic competence.

Observation is a skill to take account of noticing the feelings and behaviours of teachers to promote self awareness which is an essential tool for teachers to develop their reflective practice. In order to distinguish the classroom activities, the skills of marking and recordings of critical moments aroused during practices have been promoted in teachers that are major factors to develop reflective practices in the classroom surroundings. Communication is another key component where the teacher educands need to develop their inquiry skills through questioning and explaining and prompted them to create reflective discussions in classrooms as they are the important medium for learning, develop ideas, challenge students assess levels of understanding and to steer and ignite interest and thinking. Followed by the communication competence they are encouraged to the critical analysis and describing the event or situation which can be problematic as well, the teachers might, rather skillfully, combine details of the event with their thoughtful judgment. Finally they are evaluating the process as strategic competence included in the skills for teacher learning as organizing and reorganizing, structuring and restructuring teachers’ understanding of practice. The components of reflective practices schematically represented in the figure 2.9.
2.5.2 Becoming a Reflective Teacher

The ability to reflect constructively upon their teaching that provides a degree of autonomy and empowerment by making the teachers in the classroom as the agent of their own change. By becoming flexible and responsible to the needs of the children and the demands of the curriculum, optimal positions can be adopted. The teachers can become ever more effective within the classroom by assessing the learning relationship. Reflection is a party moving away from self and it is not always comfortable, but nor should it be a negative (Cockburn & Comp, 2006). Pollard and Tann (1993) identifying six types of skills which contribute to cyclical process of depicted in the figure 2.10.
Reflective practice is thus seen to illuminate meaning, purpose and learning in one’s own professional life and in enhancing the understanding of one’s students too. Since it has been acclaimed as the best approach to ensure a rich learning in classrooms, reflective practice is taking a strong foothold in social science as a leading subject in teacher education programmes in world wide. The problems related to conceptualization of the main ideas of curriculum transaction in social science and begin to assess the under values and varied ways in which the students might act in the classrooms and making meaningful connections are to a great extent redressed by this practice. Reflective thinking necessarily generates in social science classrooms for an appropriate climate and lead learners through a reflection cycle where by thoughts generated and meaningful connections.

The reflective cycle of classroom practices establishes a firm motivation and creative approaches to teaching and learning. It is an approach that fosters the use of thinking skills which help the students to become better at the process of learning. Initiation to the reflective practice mode is brought about through an intriguing

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**Figure 2.10. The Skills of a Reflective Practitioner**

### 2.6 Plugging in Reflection in Social Science Classrooms

Reflective practice is thus seen to illuminate meaning, purpose and learning in one’s own professional life and in enhancing the understanding of one’s students too. Since it has been acclaimed as the best approach to ensure a rich learning in classrooms, reflective practice is taking a strong foothold in social science as a leading subject in teacher education programmes in world wide. The problems related to conceptualization of the main ideas of curriculum transaction in social science and begin to assess the under values and varied ways in which the students might act in the classrooms and making meaningful connections are to a great extent redressed by this practice. Reflective thinking necessarily generates in social science classrooms for an appropriate climate and lead learners through a reflection cycle where by thoughts generated and meaningful connections.

The reflective cycle of classroom practices establishes a firm motivation and creative approaches to teaching and learning. It is an approach that fosters the use of thinking skills which help the students to become better at the process of learning. Initiation to the reflective practice mode is brought about through an intriguing
experience wherein appropriate learning outcomes fail to synchronize with the intended meaning and multiple solutions loom large before the reflective practitioner. In this context, there raised a number of questions in learners mind and prepare a forum to interpret the abstract ideas or textual facts to seek a feasible solution. Learners compelled to enter into a discourse path and explore the ideas to bring about the valid conclusions. If they fail to get the desired outcome alternate solutions are sought and the cycle repeats and to encourage them to nurture their ability to think for themselves and to make their own decisions against the issues. The reflective cycle of classroom practices are depicted in the figure 2.11.

Figure 2.11. A Reflective cycle of classroom practices
In the above said cyclic process, the learners are coming across through the stages of experiential cycle developed by David Kolb (1995), namely, problem identification, observation, reflection and experimentation. While experience is the basis for learning, learning cannot take place without reflection. Conversely reflection is essential to the process; reflection must be integrally linked with action. While reflective practice is integrating theory and practice, thought and action, it describes as a dialogue of thinking and doing through which the teacher become more skillful. It seeks to identify, assess, and change the underlying beliefs and assumptions, the theories-in-use, which directly influence actions (Osterman & Kottkamp, 2004).

Reflection is a process of dynamic action and learning that will enable students to develop their practice in the light of their analysis and evaluation. Students are therefore encouraged to consider ways in which children’s learning is promoted in the classroom by considering not just their technical skills and how they do something but also issues and aspects of practice that go deeper than this whether a lesson went well or not but will identify reasons for success or failure. This identification of reasons should draw not just on past experience in the classroom but also on theoretical knowledge and understanding about children’s learning and pedagogy.

2.7 Bridging of Instructional Strategies in Reflective Practices

In this ever changing diverse world, all the teachers must change their instructional strategies and adapt their training programmes to work in a number of creative environments. Teachers must be able to transact their curriculum to their specific students, but giving the value oriented and competency based approaches to all students. So, teachers must change their instructional strategies to teach the guys with amusement, thereby achieving the goal of education. Only knowledgeable and educated societies can flourish this world for achieving their highest education possible. In order to transact the modes of practices effectively appropriate instructional strategies play a decisive role.

Several strategies have been identified to train teachers to adopt reflective practices. Table 2.3 provides a bird’s eye view of some of the prominent strategies (cited in Gregory, 2003 & Mathai, 2009).
### Table 2.3

**The prominent instructional strategies**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Research</td>
<td>Action research is a form of disciplined inquiry that promotes self inquiry, collection of data and a search for solutions</td>
</tr>
<tr>
<td>Cadres</td>
<td>Cadres are small groups that coalesced around specific issues research options, and recommended course of action</td>
</tr>
<tr>
<td>Cases</td>
<td>Case based professional development involves using carefully chosen, real world examples of teaching to serve as spring boards for discussion small groups of teachers</td>
</tr>
<tr>
<td>Coaching</td>
<td>Coaching provides a model of respectful collegial reflection about instructional decisions</td>
</tr>
<tr>
<td>Concept Mapping</td>
<td>A sequential presentation of written information that shows connections and relationships between ideas and information</td>
</tr>
<tr>
<td>Critical Incidents in teaching</td>
<td>A critical incident is a vividly remembered event which is unplanned and anticipated</td>
</tr>
<tr>
<td>Journal Writing</td>
<td>Journal writing is a place for learners to record observations, analyze their own practice, and interpret their understanding of topics and keep records make comments, or reconstruct experiences</td>
</tr>
<tr>
<td>Mentorny</td>
<td>Mentorny provides the new corner with support guidance, feedback, problem solving guidance, and a network of colleagues who share resource insights practices and materials</td>
</tr>
<tr>
<td>Narratives</td>
<td>Narratives are stories written by and about teachers that form of the basis of narrative inquiry</td>
</tr>
<tr>
<td>Portfolios</td>
<td>A portfolio is a collection of items gathered overtime which forms the basis for discussion by colleagues or members of a group</td>
</tr>
<tr>
<td>Problem solving</td>
<td>Problem solving is a way to expand the thinking capacity of individuals so that they create their own best way to address issues through the dual process of problem raising and problem solving</td>
</tr>
<tr>
<td>Shadowing</td>
<td>Shadowing is the process of following a student and systematically recording those students’ intellectual experiences</td>
</tr>
<tr>
<td>Study groups</td>
<td>Study groups involve a small number of individual joining together to increase their capacities through new learning for the benefit of students</td>
</tr>
<tr>
<td>Tuning protocols</td>
<td>Tuning protocols involve a group of colleagues coming together to examine each other’s work, honour the good things found in that work, and firestone it through a formal process of presentation and reflection</td>
</tr>
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</table>
From among the strategies outlined in table 2.3, the investigator selected the innovative strategies namely; journal writing, critical incidents in teaching and portfolio writing as they offer a systematic work for taking stock of current abilities and for embedding more reflection and learning objectives.

Journal writing is the most common form of teachers writing as a wonderful vehicle for promoting reflective practice and they are encouraged to regularly review and reflect on their teaching strategies. Teacher educators on their part also benefit a lot from engaging student teachers in journal writing In fact for this to happen, teacher educators should be able to create and sustain a more open and caring relationship with student teachers.

2.8 Theoretical Constructs Underlying Journal writing Strategy

Journal writing is a popular technique for encouraging student teachers to reflect on their professional practice during field experience placements (Lang, 2000). This study explores on the role and importance of journal writing and in developing students’ reflective skills and to develop independent, critical judgements about initiatives and overarching curriculum structures in teachers to become a reflective practitioner. The relative and facilitating reflection on practice is examined, although student is in all condition reported positive aspects of the writing that focused on the level of reflection attained was more effective in bringing about improvement in journal writing and focused on teaching issues.

Since professional practice is a complex mixture of values, knowledge, skills and judgment, Journal writing provides best teaching practices for fostering critical thinking skills to devote considerable energy to the mechanics of teaching. It can also provide a space for reflection, an opportunity to make sense of what is happening in the classroom and in their teaching life, and to move beyond the surface, to acknowledge and to make connection. “The Journal holds experience as puzzle frame holds its integral process” (Holly, 1989, p. 8). A journal is a creative document which energizing the teacher to reflect and accelerate the cognitive activities such as recording, proposing, questioning, reminding, reconstructing, dreaming, considering and reconsidering and to glean the classroom strategies for making successful transformations in classroom practices.
While engaging the learning process, reflective journals enable them to understand how classrooms operate as dynamic entities and the individual teacher extend his or her scope to develop their own behaviour strategies and focusing on different elements of classroom practices for promoting reflective practices. Here Journaling makes invisible thoughts visible and it provides a means of describing practice and identifying thoughts and beliefs, perspectives, challenges and hopes for practice. It is also a way to put our thoughts linearly or sequentially on paper and offers a private place for honest accounting and review. Dewey (1933) noted that thinking in the accurate and deliberate institution of connections between what is done and its consequences. For Dewey it is reflection on activities that makes them meaningful experiences and a way to organize these reflections to writing about them after they have occurred. With an attempt to make these connections, journals provide such opportunities and the writing and subsequent sharing of reflections can contribute significantly to developing a culture of inquiry.

The effective practitioner can make use of a cognitive framework for journal writing and focusing on highlighting the value of reflective process and meaning making for all teachers to design creative thinking techniques to further reflection. Moreover, Journal writing has been recognized by educators as an effective strategy and a formal tool to promote reflective thinking and learning. Regularly writing up the teachers’ experience in a journal has the potential to provide them with a systematic approach to students’ development as a critical, reflective and constructive learner.

Holly (1989) has pointed out that reflective journal writing could give them time to think about their work long enough to reflect as a project. Journal writing can also help them look for patterns in their teaching overtime and can step back from their experiences and reflect on them. By analyzing these experiences, teachers give interpretation and meaning to the events and emotions they have chosen to document. In addition, Journal writing can be an activity for teachers to collaborate with one another on projects such as action research projects; new innovations in teaching and opinions of new curriculum initiatives.

Likewise teachers can also write for other colleagues so that they get feedback, as in critical friendships or with a group of teachers. In critical friendships, this
Theoretical Overview

collaboration offers opportunities for teachers to support and, at times, challenge each other, along with evidence from classroom observations. This type of journal may require more formal entries, in that the organization must be clear to another reader. It is the writer’s responsibility to make the entries clear, not the reader’s responsibility to make interpretation about what the writers may be trying to say. Teachers must also decide if they want the readers to make comments about what was written.

When learning is to be incorporated into everyday practice, a personal sense of the diverse experience is needed. Reflective journaling could be a better support in this respect as it asserts reflective process. Journals can provide an opportunity to make explicit thinking on a range of issues of personal significance through reflective process. Some benefits of using reflective journals are given below:

- Analysing and reasoning through a dilemma
- Enhancing development and reflection
- Promoting growth in critical analysis of teaching
- Promoting awareness of relationships between educational psychology and practical experiences
- Systematically reflecting on self development and actions within classroom and work contexts
- Building understanding by writing about what is learned
- Linking understanding with class room practice

However the benefits of journal writing accelerate the teacher’s competence, particularly as a means of facilitating reflection and the growth of students fully utilized in teacher education programme, one of the major defects of the curricular was the practicum, which was given inadequate emphasis and was inefficiency for implementing in teacher education programmes. Student teachers were not given sufficient time and support to develop their skills and knowledge about school teaching for there was only four weeks teaching practice carried out towards the end of the years of teaching (practice teaching) as students and the realities/activities in the field as practicing teachers (Lee, 2008).
The theoretical overview

The reflective writing in a Journal may be considered as a cyclic process which is really an aid to learning often in the form of a new material of learning. The practitioners could almost say that the reflective journals are the learner’s personal curriculum in a written form. A map of five stage cyclical process of Journal writing is described and pictured in the figure 2.12.

**Figure 2.12. A map of reflective writing in journals**
2.8.1 Types of Journals

2.8.1.1 Logs and Journals

A reflective-lesson log is an effective method to help students select key ideas from a lecture, discussion or video and write down important facts, insights or questions that will lead to better understanding. Journals, on the other hand, are usually written in narrative form and are more subjective since they deal more with feelings, opinions, or personal experiences. Journal entries usually contain longer descriptions and are more open ended and free flowing than logs. Journal writing provokes more reflection and encourages students to take charge of their learning and their feelings. The ven diagram is provided in figure 2.13 shows similarities and differences between learning logs and journals.

![Ven Diagram of similarities and dissimilarities of logs and Journals](image)

*Figure 2.13. Ven Diagram of similarities and dissimilarities of logs and Journals*

Reflective journals are demanding and time consuming for both learners and facilitators though it is an anecdotal evidence of reflective learning. Therefore it is important to note that outcome of such expenditure or energy linking practical experiences to reflective mode is effective learning using a model as frame work which is an excellent way of encouraging sound effort in reflection in journal entries. There are three types of format that have been used for journal writing.

2.8.1.2 Dialogue Journals: The type of journal used for the purpose of enhancing reflective thinking is the dialogue journal. Students converse in writing with the
teacher through dialogue journals (Boud, 2001). They write informally on topics of their own choosing and the teacher responds to the writer. These journals are interactive and conversational in tone, and, most importantly, they provide an opportunity for an authentic writing and genuine communication. The dialogue journal allows the practitioners to gain the benefits of journal writing.

2.8.1.3 Structured Journals: It is a specific or structured format that imposes certain form of constraints in the manner in which it is written and helps the practitioners to obtain reflections in a uniform format or range of format which makes the comparison objective and scientific. Students on their part are able to follow a template, which serves to provide guidance to students on approaching and developing journals.

2.8.1.4 Unstructured journals: It is a kind of journal writing that the learners produce their own format and design the writing accordingly. But it is difficult to compare with other formats used by learners resulting in subjective ascertaining of reflection and learning.

In reflective practices, the profession needs critically reflective beginning teachers with professional insights who are able to make creative thinking and establish a more intelligent, coherent and evidence based accountability framework. Thus teachers are forced to focus on preparing all students to encourage on their writing skills to process the information with the interaction and collaboration among peers in classrooms. As journal writing is the cornerstone of reflective practice work, reflection on practice or learning by keeping a journal is a fundamentally dynamic rewarding process (Schon 1987).

2.9 Out Fielding of Reflective Practices through Critical Incidents in Teaching

A critical incident is something that the teachers interpret as a problem or a challenge in a particular context that develop one’s ability to see the interactive situations from the classroom itself or outside and the students are motivated to learn and willing to participate in the learning process with deep concentration. Thinking about ways to motivate learners, the practitioners can seek critical incidents and enable their learners to engage in higher order thinking and to develop their metacognitive abilities to increase their capacities for demystifying the learning
process. According to Brookfield (1990), a critical incident is a “vividly remembered event” which is “unplanned and unanticipated.”

As it is an inquiry approach, teachers can offer critical incidents in their teaching to spin new interpretations and construct new forms of knowledge at any point of a lesson. Engaging with critical incidents activity they can provide for shared knowledge and collaborative learning for getting new experiences and confidence among them and impetus for any future investigation and review. Here, critical incident analysis could help the teachers to identify how they achieved the pleasing outcomes. The term critical incident refers to a communication situation, which the teacher educands consider as problematic and confusing, even amusing and they are the occasions that stay in mind. It is important for you to look for an experience of a critical incident that modified or reshaped your view of teaching and yourself as a teacher (Farrell, 2004).

Flanagan (1949) is generally recognized as the originator of the critical incident technique and developed it as a strategy with an inquiry approach in teaching learning process. In an article published in 1949 he outlined the methodology of the technique and certain requirements for its successful use. It has been now over sixty years, since Flanagan wrote his classic article on critical incident technique, today is recognized as an effective exploratory and investigative method for teaching and it has been extensively used in a variety of fields. Flanagan defines the critical incident technique as a set of procedures for collecting direct observations of a human behaviour in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles. The purpose of the critical incident technique is to develop one’s ability to see interaction situations from perspectives of different cultures.

The critical incident technique analysis is used as a way of developing awareness and skills of reflective practices and illuminating the practitioners to investigate their own experiences to make critical reflection in their practices. For an incident to be judged as critical, it must occur in a situation where the purpose or intend of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effects.
As described by Flanagan (1951) critical incidents in teaching has major five steps. The primary criterion for determining the general aim to be the use of the activity’s functional description once it is formulated and the next stage is determining the situations relevant to the general aim. Then there the collection of data is being done by the expert observers in the form of critical incidents by using the ways such as individual interviews, group interviews, and questionnaire and record forms. The fourth step involves analyzing data, the researchers create a categorization scheme that summarizes and describes it in a useful manner and the final stage is interpreting the data and reporting the result. The stages are depicted in the following figure 2.14.

![Figure 2.14. Steps of Critical incident analysis](image-url)
2.9.1 Types of Critical Incidents

As Tripp (1993) has observed incidents happen but critical incidents are produced by the way we look at a situation: a critical incident is an interpretation of a significant event. There are two types of critical incidents namely personal critical incidents and critical teaching incidents.

2.9.1.1 Personal Critical Incidents

Personal critical incidents are the events that occur during the course of a teacher’s career. It is an incident for a teacher that resulted in a major change in the teachers’ professional life and specific circumstances or interaction that influenced him to become a reflective teacher.

2.9.1.2 Critical Teaching Incidents

Whereas the critical teaching incident is that event happens in the classroom related to teaching. Even though personal critical incidents have enormous consequence for teacher, the majority of critical incidents pertinent to teaching occur in their classrooms. These incidents are typically common place events to which teachers ascribe critical significance and the teacher educands can effectively analyze critical incidents in that moment itself, thereby helping they understand why the incidents had such a strong impact on their practice and their career.

Another way of the approach that the critical incidents described as a case record to gather and analyze personal experience. This technique was developed by Silver (1986) and modified by Osterman (1991), as a format for creating a structured narrative about a problem situation. In addressing a series of questions, the respondent describes the problem and the actions taken to resolve the problem and used it as way of promoting individual self development to identify the changes in the levels of a reflective practitioner. Several other questions are prompted in classrooms to make reflective analysis of thoughts and intentions and the students are asked to identify the highly emotional situations from their own career, either positive or not.

The good practices audit (Brookfield, 1995) is a more comprehensive analysis that draws on multiple experiences to analyze and address common problems. Teachers, individually and then collectively, identify pressing problems encountered
in their work and selecting one problem for attention, they describe their best and worst experiences, as a learner, as colleague, and as a teacher. After analyzing this information, they draw on their insights to identify potentially useful strategies. Some insights of critical incidents: a case record format is described in the table 2.4.

Table 2.4

*Some insights of critical incidents: a case record format*

<table>
<thead>
<tr>
<th></th>
<th>Who was involved?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The problem</td>
</tr>
<tr>
<td></td>
<td>What was the pertinent background information/</td>
</tr>
<tr>
<td></td>
<td>What was your role in the problem?</td>
</tr>
<tr>
<td>2</td>
<td>Outcome Desired</td>
</tr>
<tr>
<td></td>
<td>What did you hope to accomplish?</td>
</tr>
<tr>
<td>3</td>
<td>Alternatives Considered</td>
</tr>
<tr>
<td></td>
<td>What alternatives did you consider to solve the problem?</td>
</tr>
<tr>
<td>4</td>
<td>Strategies Implemented</td>
</tr>
<tr>
<td></td>
<td>What action did you take in an attempt to achieve your objectives/</td>
</tr>
<tr>
<td>5</td>
<td>Results</td>
</tr>
<tr>
<td></td>
<td>Were your objectives achieved/</td>
</tr>
<tr>
<td></td>
<td>What happened as a result of your actions</td>
</tr>
<tr>
<td>6</td>
<td>Assessment</td>
</tr>
<tr>
<td></td>
<td>Did your plan work as intended/What critical events, decisions, situations influenced the outcome /What would you differently, if anything</td>
</tr>
</tbody>
</table>

2.9.2. **Critical incidents in teaching: A Processing Walkway**

Tripp (1993) has developed an approach to the investigation of practice and the enhancement of professional development through identification and analysis of significant episodes or critical incidents. While critical incidents are produced in a classroom, the students focus on collaborative actions through inquiry, reflection and experimentation to the understanding of learning and development and at the same time the teachers involves in the act of teaching, assessing, observing and reflecting the activities in the classroom practices that lead them to the development of new knowledge about professional practice. Similarly the teachers can provide many of the critical elements that support reflective practices and create rich opportunities for interaction, shared reflection and modeling for reflective practice. In order to bring
Theoretical Overview

one’s teaching actions to the reflective level the critical incidents are to be interpreted and to analyse the dynamic group discussion for making classroom interaction more enjoyable to students and teachers that encourage teachers to become aware of and critically reflect on their learning and professional practice.

Huxley (1997) developed a model and it had four key steps to writing about or discussing critical incidents in the classroom context they are: the first step of the strategy is to describe the critical incident in detail. The critical incidents are generally challenging problems before students that they have to solve them by their previous knowledge and experiences. Secondly the students discuss their emotional reaction to what they observed or experienced about the occurrence of critical incident. And the third step is critique the way the incident was handled that to understand the commonalities among responses. Responses need to be summarized so that dominant or common themes can be identified. Finally the students collect critical incidents under similar situation and develop their own approach for dealing with a similar situation. The stages are depicted in the figure 2.15.

![Figure 2.15. Stages of Critical Incidents in Teaching](image)

Figure 2.15. Stages of Critical Incidents in Teaching

The powerful influence of prior educational experiences and a varying capacity to think reflectively and critically present potential barriers that pre service teachers face in implementing the knowledge and skills learned in their teacher education programmes. New teachers have the tendency to model their practice on their own educational experiences (Halton & Smith, 1995). These experiences create deeply ingrained attitudes and beliefs that constitute a latent philosophy of education which is not easily changed through formed study of teaching methodology.
In order to develop increased understanding and control over professional judgments, the critical incident analysis is a powerful strategy for promoting reflective practice. Having built confidence in the strategy, the critical incidents analysis may be introduced as a part of the teacher’s systematic inquiry. Thus the critical incidents were collected and analysed to evaluate their effectiveness of the competence of teaching and to develop pre-service teachers’ levels of reflective ideas and thinking, their degree of orientation toward growth and inquiry, and modes of reflective thinking.

2.10 Architects for sculpturing Portfolio writing

Today the portfolios are found in all phases of education and professional development for learning, assessment, promotion and assessment. The portfolio is a document with particular relevance in education and a tool with special value in facilitating reflective practice. Portfolios provide an opportunity for teachers to document and describe their teaching, articulate their professional knowledge, and reflect on what, how and why they teach.

The use of portfolio writing provide a venue to demonstrate reflective thinking strategies and show professional growth overtime in diverse educational situations and relay personal attitudes towards teaching and learning. Brookfield (1995) took a slightly different approach, focusing specifically on growth in learning as well as description and critique of practice. His guidelines requested an overall summary of themes from reflective journals, a description of contributions to various projects, a summary of personal learning, and an assessment of class materials and the course itself. The portfolio concludes with list of recommendations for incoming students and a reflection on how learning will influence practice. Portfolio writing is defined as a purposeful collection of selected work that together with personnel reflections tells the story of who a student is now and who she or he is becoming (Johnson et al., 2006). According to Shulman (1992) it is a structural documented history of a carefully selected set of achievements in a given area and fully realized only through reflective writing deliberations and serious conservation.
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An integral part of a portfolio is the reflection on students learning and development as a reflective practitioner. Developing a structured approach will make reflection both a more effective learning experience as well as generating rich material that can be included in a portfolio. The key concept in portfolio revolves around collection of data, selection or organization of data, reflection on this selected data, and presentation of the product. The collection of artifacts invariably leads learners to the selection phase. Here the individual reflects and decides whether or not to include the artifacts based on a standard in a classroom focused on developing the skills in reflective teaching this entails, consideration of the audience, selection of the statements that are clear, using discourse markets that dispel ambiguity, and above all learning the paraphernalia of constructing dialogue.

Portfolios for professional development

Portfolios encourage both personal and professional development through the process of reflective practice and critical analysis. By exploring some of the different purposes and then relate these to the design principles and formats of different types of portfolios is commonly used in education. Continuous written reflections are an essential component of the portfolio process. These reflections record development and summative information about a candidate can be included in a portfolio. Four general types of reflection have been identified by various exponents of the portfolio process. They are:

1. Goal setting statements
2. Reflective statements
3. Captions and statements
4. Assessment and evaluation statements
The theoretical overview of portfolio reflection is depicted in Figure 2.16.

In many areas of education, the development of portfolios has been a significant development and it serves as a proof of the accomplishments achieved during teaching experiences or educational careers. The portfolio is a purposeful collection of student work that tells the story of the students’ efforts, progress or achievement in a given area (Arter & Spandel, 1992). A well-designed portfolio is a reflection of the individual's understanding and growth and hence has to be organized in a befitting manner so as to serve as a reflective tool.

Since a portfolio is simply a collection of artifacts to be turned in at the completion of a programme, it has to be arranged in a coherent mode. The portfolio process involves four types of organizational issues: temporal, spatial, human, and contextual. Temporal issues concern time-related activities and their place in the existing teaching and assessment practices. Spatial issues deal with organizing the portfolios format, design, and physical characteristics, storage and access. Human issues include role-sharing responsibilities such as establishing and updating a table of

Figure 2.16. Multi-faceted, cyclical nature of Portfolio Reflection
contents, dating and sorting portfolio entries, reflections, and making and scoring for formative or summative evaluation process. Lastly, conceptual aspects have to do with specifying the object of assessment, identifying the standards, determining the scope of disciplines from which portfolio artifacts are selected and establishing criteria for their quantity and quality.

2.10.1 Benefits and challenges of developing a Portfolio

Designing and building a professional portfolio is a powerful means of planning, enhancing and reviewing practice. Here some of the benefits of producing a professional portfolio identified by participants on different professional development programmes are given. Clearly, producing a portfolio has benefits personally for an educational practitioner by building confidence and greater understanding as well as other benefits, with the educational practitioner looking in depth at his /her practice and then finding ways to improve this. The benefits of developing a portfolio can be listed as:

- Create a sense of achievement
- Built the self confidence
- Create an opportunity to conduct an in-depth self evaluation
- Develop skills of reflection
- Develop greater awareness of the context that one works in
- Make one think about where he/she want to go and what he/she needs to develop
- Strengthens the understanding of his/her development as a practitioner

However, there are some challenges can be seen in portfolio process that it provides a space in which the practitioners can plan and reflect in depth on their practice. The challenges of developing a portfolio are as follows:

- The portfolio could become simply a paper trail
- Constructing and assembling a portfolio is time consuming
- Very messy at the start when trying to find a format
Theoretical Overview

- The portfolio can create an atomistic approach-looking at different tasks without making connections

- The portfolio can focus on the functional aspects of practice without looking at the ‘big picture’

In accordance with Dewey’s theory, the portfolio process is appealing to learners as pupils are led through a genuine situation of experience which is a continuous activity. A genuine problem develops within the situation as a stimulus to thought leading students to process information and makes observations and seeks multiple situations to present their ideas sequentially. In a way the thinking process of learners get activated which lead learners to reflect on their experience and establish from educative experience. The entire process of a portfolio construction is in accordance with the theories of learning presented by Dewey (1933), Vygotsky (1978), Bruner (1961), and Gardner (1983).

Bruner (2004) too sees learners as constructors and generators of knowledge through social interaction and recursive thought. The entire process of portfolio construction leads learners to analyze their experience through the lenses of culture, language and personal bias and knowledge interactivity, language and culture.

Vygotsky (1978) argued that higher order functions such as cognition develop in a social context. A major implication for teaching is that interaction between teacher and learners is fundamental to learning and emphasizes the importance of formative assessment. The teacher plays a facilitative role in the construction of a portfolio by identifying student’s conceptual construction and by channelizing the student’s thought towards conceptual modifications and refinement. The student’s zone of proximal development is identified and the progress is explored through self evaluation and peer evaluation techniques. The learning style of each individual is catered to and ample scope to understand varied learning style characteristics too develop.

2.10.2 Portfolio Conferences

It is important to enhance the portfolio process, conferencing with others about portfolio content for the purpose of presenting the portfolio, reviewing its contents,
and discussing the related learning process. It can be done at the outset of the portfolio process, or at its culmination. The learner explains his or her portfolio and outline the successes; areas that need attention, and goals for future. Prior to the conference, the portfolio holder plans the presentation and anticipates questions, and the other participants prepare questions to ask the portfolio holder and develop constructive feedback to share.

2.10.3 Types of Portfolios: The purpose of a portfolio determines the type of portfolio and the process to be used in developing the portfolio.

2.10.3.1 Digital portfolios: As more schools experimented with technology, students are creating digital portfolios. The purposes include, showcasing their best work, proving they have met all the requirements for promotion or communicating with parents.

A proficiency portfolio can document a teacher’s best work accomplished during a unit, field experiences or an entire career. Regardless of the kind of portfolio selected, the portfolios provides the means to continuously examine new skills as a result of intelligent reflection on existing performance at all levels of learning. They reflect not only what institution mandates as important but they also allow each individual to take the portfolio and mould it in to something uniquely filling that person. The purposes, more than any other factor, drives the content and organization of the document. Table 2.5 although not exhaustive, presents information about the factors of different kinds of portfolios (Mathai, 2009).
Table 2.5

<table>
<thead>
<tr>
<th>Type</th>
<th>Purpose</th>
<th>Unique feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Academic and educational assessment</td>
<td>For assessment and evaluation of candidates and in programme evaluation</td>
<td>Contains artifacts and reflections based on the academic classes, projects and field experiences</td>
</tr>
<tr>
<td>2 Career advancement and Employment</td>
<td>To provide information on experience relevant to professional advancement</td>
<td>Contain evidence of career accomplishments</td>
</tr>
<tr>
<td>3 Focus</td>
<td>To present in academic and career advancement settings</td>
<td>Focused on a specific area related to academic and career advancement settings</td>
</tr>
<tr>
<td>4 Developmental or growth portfolios</td>
<td>To show the stages of growth and development of the individual</td>
<td>Sequent organization of selected work reflective of growth over time</td>
</tr>
<tr>
<td>5 Showcase</td>
<td>To develop achievement and impress others</td>
<td>Is dynamic showcased the best work demonstrate competency</td>
</tr>
<tr>
<td>6 Presentation</td>
<td>To display competency through an easy to read mode</td>
<td>Sample of the best work from a portfolio collection</td>
</tr>
<tr>
<td>7 Pass Portfolios</td>
<td>To show a student’s readiness to perform at new level or take a new challenge</td>
<td>Samples of current quality of work like letters of introduction vision of statement letters of recommendations</td>
</tr>
<tr>
<td>8 Comprehensive</td>
<td>To keep myriad of artifacts that will be used for career and academic advancement</td>
<td>Up to date resource file with organizational features.</td>
</tr>
<tr>
<td>9 Learning and teaching</td>
<td>To promote candidates reflection and ownership of the learning process</td>
<td>Personalized collections of a candidates work emphasized ownership and self assessment.</td>
</tr>
</tbody>
</table>
2.10.4 Designing the portfolio frames

Designing a portfolio is a demanding task and teachers have to be concerned that this does not become simply an administrative task of gathering different pieces of paper. From among the several portfolios mentioned, the one adopted for the study was the teaching and learning portfolio reflecting the learners grasp of things. Since more focus has been placed on understanding the student’s behavior, the type of portfolios emphasized in the study is the student portfolios with special reference to social science tasks.

The process of designing and constructing a portfolio should be a valuable learning experience. Students’ portfolios are collections of products that represent specific student performance. It may be a folder containing a student’s best pieces and the student’s evaluation of the strengths and weakness of the pieces. It may also contain one or more works-in-progress that illustrates the creation of a product such as an essay, evolving through various stages of completion, drafting and revision. It becomes a tool to promote reflection and deeper learning.

Research show that at all levels, portfolio preparation can provide structure for involving students in developing and understanding criteria for good efforts in coming to see the criteria as their own, and in applying the criteria to their own and other students work. Researches also show that students benefit from an awareness of the process and strategies involved in writing, solving a problem, researching a topic, analyzing information, or describing their own observations. But it places, additional demands on teachers and students as well as on school resources.

There are three main things that go into the development of a student portfolio. First the decision regarding the purpose of the portfolio is to be identified. Secondly, determine the mode of grading and thirdly decide what is to be included in the portfolio.

Following a list of suggested and possible items that can be included in a student portfolio.
• Quotations the student especially likes.

• Graphic illustrations of information-charts concept, diagrams, webs, timelines, and photographs.

• Recording or videotape of readings or performance.

• Sample paragraphs showing mastery of specific writing techniques.

• Sample essays of various types, descriptive, narrative, explanatory, exposing, persuasive, cause and effect compare and contrast, defining terms, etc.

• Writing from other classes-reports, speech, outlines, essays, projects, etc.

• Explanation of literacy terms using examples from reacting.

• Creative writing- stories, poems, songs, sports and so on.

The portfolio strategy with its focus on contextualized learning requires complex thinking and expressive skills and is thus heralded as vehicles that provide a more equitable and sensitive partout of what students know and are able to do.

2.10.5. Preparation of professional portfolios

The purpose of a pre service teacher’s portfolio is to document professional growth and development. As students reflect on their work and improve it after receiving instructor feedback, they can decide to use it as an artifact that provides evidence of having met a performance standard. A model for the preparation of professional practitioner sees the pre service as decision maker (as cited in Montgomery K.; & Wiley, A. 2008) is given in the figure 2.17.
Figure 2.17. Model for the preparation of professional practitioners
2.10.6 Using ICT in developing a Portfolio

For most educational practitioners, information and communication technology (ICT) is an integral part of their professional practice, both as resource for learning, teaching and research as a communication tool. Developing an e-portfolio requires the skills of reflective practice and a high level of competency in ICT, presenting an opportunity for the practitioner to demonstrate not only the extent of their professional learning but the range of their ICT capability.

E-portfolios or digital portfolio serves the same purpose as a paper-based portfolio except that it is designed, constructed and presented in an electronic format, usually web based. The electronic medium offers greater opportunity for including a wider variety of audio, digital and graphic resources as well as text. The same principles and stages of portfolio and construction are adopted as paper portfolio in the design and construction of an e-portfolio. These include:

- understanding professional learning and recording it.
- using frameworks for professional learning to reflect critically on practice.
- developing a professional biography and career timeline.
- critical reflection and writing.

Portfolios incorporate the recent trends in education that lay importance on constructivism and critical pedagogy. Collaborative learning is facilitated through portfolio construction. Besides, subject matter is acquired quite unconsciously in this learning setup within emphasis on thematic details, structural framework and the like.

The select reflective teaching strategies namely portfolio writing encourage topic knowledge whereby the learners writing tends to become more organized and fluent. It has been researched and found that students with high topic knowledge apparently exert less effort to retrieving ideas which frees them to devote more attention to organizing their thoughts around a theme.
2.11 Conclusion

The essence of dialectical constructivism where by learners are led to construct knowledge through their interaction with environment adds to the relevance of adopting reflective modes in the classroom of social science teaching. The procedural facilitation by these strategies in the form of cases, prompts, self check enables students to explore and manipulate texts effectively.

These basic perspectives of reflective teaching strategies that are being captured through the lesson transcripts have been detailed on the methodology chapter. Several studies and related literature in support of the theoretical constructs, underlying the major concepts highlighted so far have been presented succinctly in the succeeding chapter.