CONICAL MODEL OF REFLECTIVE TEACHING WITH AN OVERVIEW OF EXISTING MODELS

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"An empowered teacher is a reflective decision maker, who finds joy in learning and in investigating the teaching learning process—one who views learning as construction and teaching as a facilitating process to enhance and enrich development.”---Fosnot (1989)

Introduction: - Students’ achievement/scores in examinations, is generally treated as a main measure to gauge teacher performance. This output oriented approach overlooks the processes that take place in actual classroom condition. Now a days it is realised that mere marks or high grades are not enough for working on day to day issues either in workplace or in personal life. Actually learning processes that occur in the classroom, equip the students to deal effectively with life. Since learning processes are in focus, it is essential to think about the cognitive and metacognitive abilities of a teacher first.

There may be many qualities that the teacher should have, but a single essential quality without which a person cannot help himself to grow and enrich as a teacher is reflective thinking/reflection. Through reflection only a teacher could make the learning process meaningful and find a joy in his work.

There are many proponents of reflective teaching right from Dewey. Most of them have framed models of reflective teaching. This article deals with an overview of existing models of reflective teaching with a new model proposed by the author of this article.

Reflective teaching: “It is thinking about and critically analysing one’s own teaching in order to improve teaching practice.”(From www.education.com)

“Reflective teaching indicates reflective action which involves a willingness to engage in constant self-appraisal and development. It implies flexibility, rigorous analysis and social awareness while performing the duties as a teacher.”-Dewey. In order to develop reflective thinking habits, Dewey (1933) emphasized the following three attitudes: (1) open-mindedness; (2) whole-heartedness, or the willingness to become involved in an issue or cause; and (3) responsibility, which is the willingness to be accountable for our beliefs. According to Pollard (2002) the characteristics of reflective teaching are as given below-

Characteristics of reflective teaching:-
1. Reflective teaching implies an active concern with aims and consequences, as well as means and technical efficiency.
2. Reflective teaching is applied in a cyclical or spiralling process, in which teachers monitor, evaluate and revise their own practice continuously.
3. Reflective teaching requires competence in methods of evidence-based classroom enquiry, to support the progressive development of higher standards of teaching.
4. Reflective teaching requires attitudes of open-mindedness, responsibility and wholeheartedness.
5. Reflective teaching is based on teacher judgement, informed by evidence-based enquiry and insights from other research.
6. Reflective teaching, professional learning and personal fulfilment are enhanced through collaboration and dialogue with colleagues.
7. Reflective teaching enables teachers to creatively mediate externally developed frameworks for teaching and learning.

Models of reflective teaching—During the early 1900s Dewey began writing about reflective thinking, but it was not until 1910 that Dewey published his first book, *How We Think*. Various theorists who have generated ideas concerning reflective thinking are grouped into two divisions or classes: those theorists who focus on the process in which individuals proceed through in the reflective cycle and those theorists who focus on the mode or level of thinking at which individuals operate. Following are some models of reflective teaching that come under first category.

**Cyclic Models of reflective teaching:—**

**Kolb (1984):—**

Kolb’s reflective model highlights the concept of experimental learning & is centred on the transformation of information into knowledge. This takes place after the situation has occurred and entails a practitioner reflecting on the experiences, gaining a general understanding of the concepts encountered during the experience & then testing these general understandings on a new situation. In this way the knowledge that is gained from a situation is continuously applied & reapplied building on a practitioner’s prior experiences & knowledge.

**Graham Gibbs 1983 Model of Reflection.**
Graham Gibbs discussed the use of structured debriefing to facilitate the reflection involved in Kolb’s experiential learning cycle. He presents the stages as follows:

- Feelings: - What were your reactions & feelings? Again don’t move on to analyze it yet.
- Evaluation: - “What was good or bad about the experience? Make value judgments”.
- Analysis: - “What sense can you make of the situation? Bring in ideas from outside the experience to help you.” What was really going on?” Were different people’s experiences similar or different in important ways?
- Conclusion (general) : - “What can be concluded, in a general sense, from these experiences and the analyses you have Undertaken?”.
- Conclusions (specific) : - “What can be concluded about your own specific, unique, personal situation or way of working?
- Personal action plans: - “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 learnt?”

Models of reflective teaching based on levels or stages of reflection.
Schoon (1978)

<table>
<thead>
<tr>
<th>Reflection in Action</th>
<th>Reflection on Action</th>
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<tbody>
<tr>
<td>- Experiencing</td>
<td>- After the experience</td>
</tr>
<tr>
<td>- Thinking on our feet</td>
<td>- Discussion, analysis</td>
</tr>
<tr>
<td>- Spontaneous actions,</td>
<td>- Criticism</td>
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<tr>
<td>- Judgments &amp; recognitions</td>
<td>- Action accordingly</td>
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<tr>
<td>Schoon's Reflection</td>
<td>- Reflective journal</td>
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Schoon introduced the concept of Reflection –in-action and Reflection-on-action. Reflection-in-action can be described as ability of a practitioner to ‘think on their feet’, otherwise known as felt –knowing. It revolves around the idea that within any given moment, when faced with a professional issue, a practitioner usually connects with their feelings, emotions and practitioner to attend to the situation directly. Reflection on action on the other hand is the idea that after the experience a practitioner analyses their reaction to the situation & explores the reasons around & the consequences of, their actions. This is usually conducted through a documented reflection of the situation.


According to Handal & Lauvas, teaching that integrates teachers practical theories with their actual daily actions involves three levels of practice as shown in figure. The first is the level of action (P1) where the teacher walks into the classroom, gives assignments, explains, asks questions, monitors work & evaluates. The second level P2 is planning & reflection where teachers consider’ Why they do what they do in the classroom’this level of practice encompasses both aspects of reflection-on-action.
The third level of teaching practice is the level of ethical consideration, (P3) in which teachers reflect about the moral & ethical basis of their actions and raise questions how or if their actions contribute to a caring classroom environment or to the enhancement of equity & justice. This level tends to focus predominantly on thought about ours & others efforts.

- **Griffith & Tann (1992) – Dimensions of Reflection :-**

<table>
<thead>
<tr>
<th>1. Rapid reflection</th>
<th>Immediate &amp; automatic Reflection –in-Action</th>
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<tbody>
<tr>
<td>2. Repair</td>
<td>Thoughtful Reflection-in-Action</td>
</tr>
<tr>
<td>3. Review</td>
<td>Less formal, Reflection-on-action at a particular point in time.</td>
</tr>
<tr>
<td>4. Research</td>
<td>More systematic, reflection on action over a period of time</td>
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<tr>
<td>5. Re-theorizing &amp; research</td>
<td>Long term reflection on action informed by public academic thrives.</td>
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</table>

The first dimension of reflection, which is likely to be personal & private, is referred to as rapid reflection. It occurs when teachers immediately and automatically reflects while they are teaching. All though all the responses at this level of reflection are routine & automatic, not all teachers will have the same immediate response to similar situations.

The second dimension of reflection, repair is still reflection-in-action, but here there is a quick pause for thought. Here we would see such things as the teacher reading student reactions to a particular lesson and adjusting his or her actions, on the spot, on the basis of these readings.

The third dimension of reflection, review, and all the remaining ones are part of what Schoon means by reflection on action & takes place after the action is completed. Here teachers think about or talk over such things as the progress of particular students or group & students or the development of curriculum units & as a result, existing plans may be modified.

In the fourth dimension of reflection, research, the teachers’ thinking and observation becomes more systematic and sharply focused around particular issues.

In the fifth & final dimension of reflection, re theorizing & reformulating, reflection is more abstract & rigorous than in the other dimensions & takes place over a space of months or years. Here, while teachers critically examine their practical theories, they also consider these theories in light of public academic theories.
- Taggart’s reflective thinking pyramid:

- The second level of reflection involves reflection involves reflections regarding clarification of and elaboration on underlying assumptions & predispositions of classroom practice as well as consequences of strategies used. The non-problematic nature of the technical level gives way to problems at the contextual level. Problems stem from personal biases resulting from a practitioner’s belief system, looking at situations in context & questioning of practices based on increased pedagogical knowledge & skills.

- Taggart’s third & highest level of reflectivity, critical reflectivity deals with questioning of moral & ethical issues related directly & indirectly to teaching practices. At this level, practitioners contemplate ethical and political concerns relative to instructional planning & implementation. Practitioners are concerned with worth of knowledge & social circumstances useful to students without personal bias. The ability to make defensible choices & view an event with open-mindedness is also indicative of reflecting at a dialectical level.

- If we put it collectively as given in the following table, it shows that each model is developed on the base of experiences or repertoire as termed by Schoon. In each model, action is the only thing through which reflection is visible. Reflection essentially includes analysis, problem solving & critical thinking.

<table>
<thead>
<tr>
<th>S r</th>
<th>Name of the model</th>
<th>Experiences</th>
<th>Process</th>
<th>output</th>
<th>Distinctness</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Kolb’s model</td>
<td>Analysis</td>
<td>Feedback to improve further action</td>
<td>Conversion of information into knowledge through a cyclic process.</td>
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<td></td>
<td>Model</td>
<td>Components</td>
<td>Reflection Type</td>
<td>Details</td>
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<td>2</td>
<td>Gibb’s model</td>
<td>Feeling-evaluation-analysis-conclusion-Action</td>
<td>Modified Action</td>
<td>Place to feelings at the start of reflection in a cyclic process.</td>
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<td></td>
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<td></td>
<td></td>
<td>Two levels of reflection</td>
<td></td>
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<tr>
<td>3</td>
<td>Schoon’s model</td>
<td>Reflection in action and on action</td>
<td>Reflective Journal, More proactive action</td>
<td>Three stages of reflective process. Consideration of moral and ethical bases.</td>
<td></td>
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<tr>
<td>4</td>
<td>Handal&amp;Lauvas model</td>
<td>Analysis and reflection on action</td>
<td>Three stages of reflective process.</td>
<td>Five stage model. Elaboration of Schoon’s two stages.</td>
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<td>5</td>
<td>Griffith &amp;Tann’s model</td>
<td>Rapid reaction-repairing the action-review-research-re-theorising and research.</td>
<td>Rapid critical thinking and rebuilding the theories.</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>Taggart’s model</td>
<td>Questioning the action, Clarification and elaboration on assumptions, critical thinking on moral and ethical issues related to teaching practice.</td>
<td>Three stages of reflective process.</td>
<td>Model has three levels.</td>
<td></td>
</tr>
</tbody>
</table>

Handal, Lauvas and Taggart have considered the component of values and ethics related to any teaching context. But through all these models the author could not find the due consideration of beliefs and value system of a teacher which shapes his/her behavior in the class and which acts as a deciding factor for any action. Hence the author tried to think of a model which is having value as a separate dimension when reflection occurs. The proposed model is a cyclic spiral type. It can be explained appropriately with the help of structure of a cone. Hence it is termed as ‘Conical model of reflection.’ There are three sides of a cone - latent/slant height, radius of the circular base and height. Here in this model, this latent height denotes the values and beliefs of a reflective teacher. The height of a cone represents the thinking process (from lower order to higher order mental processes) and the radius of the semicircles signifies the experiences or the context.
The model of reflective thinking proposed by the researcher:

- Creative thinking
  - a
  - b
- Critical thinking
  - a
  - b
- Analysis
  - a
- Proactiveness
  - a
- Memory
  - a
- Thought Process
  - a
- Value
  - a
- Sensitivity
  - a
- Commitment
  - a
- Responsibility
  - a

The above model developed by the author has four stages.

(The reflective thinking process can be considered on three dimensions. One is thought process, another is value and beliefs and the third dimension is context.)

The reflective thinking process goes through four stages.

**Stage 1** or initial stage:
At this stage, the teacher gathers various experiences. They come from classroom teaching, interaction with students, interaction with Head of the institution, colleagues or parents etc.

Thinking process-In the context of these experiences the lower order mental processess such as describing, recognising, identifying, retrieving, paraphrasing, summarising etc) take place.

Related professional value- sensitivity about various issues.

**Stage 2** – At this stage, the thinking process advances.
At this stage the teacher starts elaborating the experiences, add essential details about the experience. He tries to get a more clear picture of a situation.

**Stage 3** – At this stage, the thinking process advances.
At this stage the teacher starts elaborating the experiences, add essential details about the experience. He tries to get a more clear picture of a situation.

**Stage 4** – At this stage, the thinking process advances.
At this stage the teacher starts elaborating the experiences, add essential details about the experience. He tries to get a more clear picture of a situation.

The reflective thinking process can be considered on three dimensions. One is thought process, another is value and beliefs and the third dimension is context.

Stage 1 or initial stage:
- Thinking process
  - a – description of an experience.
  - b – discussion on the experience & considering all aspects of it with out bias.
  - C – Taking into consideration all the aspects there is an action for self change.
  - D – Understanding problem / situation fully taking an action sell
experiences, interpretation, discussion, analysis of the situation, finding the possible alternatives started. Related professional value - Proactiveness

**Stage 3** - Here the scope of the experience widens. The experience is interpreted with reference to social, political, economical, and other views related to it.

Thinking - A critical analysis of the situation, finding objectively the variables involved, finding the logical gap between the variable relationship, considering the possible solutions introspection and action (of self change) accordingly.

Related professional value - Responsibility

**Stage 4** - One more stage where reflection is visible. At this stage also teacher thinks about the issue. But instead of convergent thinking he tries to redefine the problem and find out a solution which is innovative. No doubt, here also is a step of taking action towards self change but not through routine way. Commitment to profession is the basis driving force at this stage & behind such action. At this stage the teacher is openminded & can think of any situation without bias. The discussion about ethical and moral issues behind any action also takes place at this stage.

Here the author is considering **Value** (especially professional) as a main driving force behind reflection. The energy required to go from one stage to upper stage comes from values. If they are not properly and adequately developed, there is a possibility that a teacher will remain at ground state. Sarcastic and pessimistic attitude may develop in this state preventing a teacher's further growth.

This has a support of Marzano's new taxonomy of educational objectives. Reflection basically is a cognitive professional development process. According to Marzano (2001), for every cognitive process to happen, the metacognitive and self system of a person plays an important role. The control and monitoring of the cognitive processes is done by self and metacognitive systems. Values and beliefs being a part of self system, author has tried to take its cognizence in the conical model. NCFTE 2010, the curricular framework for preservice teacher education courses by NCTE, aims at preparing the prospective teachers as reflective thinkers. If this has to happen the preservice teacher education programmes should have strong input of building professional values.

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