A Study On Degree Of Using Reflective Practices Among Secondary School Science Teacher

Jay Anand, Research Scholar , Regional Institute of Education, Bhubaneswar

Dr. Elizabeth Gangmei, Professor in Education, RIE, Bhubaneswar

Abstract: This study aims to identify the degree to which using reflective practices from the perspective of secondary school Science teachers. In this study, the descriptive analytical method was used, and the researcher designed a questionnaire based on planning and preparation, implementation and evaluation with total no of item is 47 in 3 point likert scale which was used as the main research instrument. The study sample consisted of (60) Science teachers of secondary school working in palamu district of Jharkhand. The results of this study show that the degree of using reflective practices by the science teacher at secondary school in palamu district at Jharkhand is greater, and that the most important reflective practices in planning and preparation where teachers show that high degree of using reflective practices in 13 items out of 21 items which gained the first and after that evaluation in 06 items out of 09 teacher show high degree of using reflective practices which gained second and last one where teachers show high degree of using reflective practices in 6 items out of 17 items of implementation phase of teaching practices in their classes.

Index Terms - Reflection, Reflective Practices, Degree of Reflective practices

I. INTRODUCTION

We belong to an age of knowledge and rapid technological improvement, which necessitates the development of education and the retraining of instructors to keep up with these changes. The development of various thinking skills is an essential component of the educational process. This is why curriculum developers focus their efforts on improving students' thinking skills, because "watching others through reflective practices generates opportunities for us to ask ourselves indirectly about our practices." 2008 (Kowles). Educational institutions provide and develop reflective thinking skills in individuals so that students can identify deficiencies in the learning process by developing teachers' performance and encouraging them to use reflection in the teaching process in various learning environments (Toman, 2016). Emphasizes the significance of strengthening teachers' thinking skills using a range of methods, the most essential of which are skill training methods. Training in specific abilities is used to impart knowledge to the classes. Colleagues would then watch and experiment with these techniques, as well as get further training aimed at increasing their overall teaching ability, developing professional fellowship, fostering collegial

conversation, and inspiring reflective thinking Al-Ayasra (2015). This would also include training in addressing problems through collaboration among teachers to solve problems, expert training in which a distinguished teacher provides support to another teacher, or cross-training in which teachers exchange roles among themselves using peer observation techniques. Reflective teaching is an approach in which we move from the circle of 'how to do' to the larger circle, to answer the questions (what or why). These questions allow us to examine the teacher's day-to-day activities within the context of the larger educational system. Teachers can learn by reflecting on their work in the classroom, according to this method (Rajab et al., 2011). Reflective practice is the doorway to the development and training of teachers in various disciplines. It puts them to the test of developing themselves and evaluating their educational practices, allowing them to grow in self-awareness and professional development as they analyze and evaluate their reflective practices through observation, critique, logical analysis, and openness to other people's ideas,(Shaheen 2012). Many researchers attribute the growing interest in reflective practice to the growing pedagogical trends of constructivism in learning, which suggests that learners build knowledge through integration and interaction with content and the surrounding environment, as it also considers reflection an important factor in the learning and teaching processes (Farrell 2008). The necessity for particular programmes, as well as the use of supporting teaching practices, to build the reflective thinking skills of school pupils in various grades. These are intended to ensure that students' progress is known within a specific timeframe in order to achieve the process of awareness and comprehension, to successfully complete the educational tasks assigned to them, to ensure that the classroom environment is appropriate, to refocus on understanding the teaching material, and to motivate and guide students during the learning process,(Kovalik and Olsen 2010). Reflective actions can be regarded from several perspectives and considered beyond the event itself. It is a mental thinking process that combines various stages of research and debate in order to discover ideas, sentiments, and evaluations that highlight the skills and outcomes of activities. They can also be practiced independently or in groups. We confront our values and beliefs when we practise reflection with others, just as we do when we practice self-reflection. Thus, reflective practice is a method of putting a value on ethical practices, which promotes accountability; this process can be spontaneous or planned, and it can be launched to shine light on our work (Knowles, 2008). The goal of reflective practices is to change instructors' behaviors and decisions and how this influences the outcomes of those decisions. The benefit of thinking is found in instructors' ability to develop classroom practice and increase the quality of the teaching and learning process for both teachers and students. Reflective teaching is a successful approach that allows teachers to better understand each student's limitations, select the best learning method, and design better ways to teach pupils (Hassan, 2013).

Reflection:

According to Akbari (2007) and Farrell (2003), reflection helps teachers in letting go of habitual and impulsive behaviours. Additionally, they think that it raises awareness and fosters a better understanding of teaching, initiates positive change, and helps instructors construct their daily experiences. It also enables them to engage in a consciously critical manner. teacher personalities, ideologies, and affective makeup influence how they respond to the pictures that arise from reflection and motivate them to participate in self-

reflection Akbari (2007). In the words of a layperson, reflection "... simply means thinking about something," yet for others, "it is a well-defined and crafted practice that carries very specific meaning and associated action" (Loughran, 2002).

Reflective Practices:

A teacher's reflective practice is an offshoot of practice-related thinking that dates back to Aristotle's time. Since Dewey originated the term, other philosophical and pedagogical perspectives have impacted reflective practice. Constructivism is one approach that sees learning as an active process in which learners reflect on their present and previous knowledge and experiences to produce new ideas and concepts (Miller, 2004). The humanistic aspect of reflective practice is concerned with personal progress and the goal of emancipation from values that hinder growth (Kullman, 1998). Thus, reflective practice is constructive, humanistic, and pragmatic. His/her activities are progressive because of the ideology that underpins them. In an educational perspective, both teachers and students are reflecting "when they analyze or evaluate one or more personal experiences and attempt to generalize from that thinking" (Cowan, 1998). Reflective teaching is divided into six stages, according to Khelifa (2009). The first phase, awareness, begins when the teacher notices a specific pattern in pupil learning. The critical inquiry phase begins when the teacher analyses what happens and goes wrong in their instruction. In this phase, reflection can be both in-action and on-action. The consultation phase begins when the instructor attempts to solve difficulties by speaking with colleagues, gaining feedback from pupils, and gathering information from literature. The fourth phase, consideration and selection, begins when the teacher chooses a solution to a problem from a list of alternatives. In other words, the teacher has time to make decisions on the identified issue. The fifth phase is implementation, in which the teacher tries out the chosen solution/strategies to tackle the problems.

Reflective Teachers:

Valli & Valli (1997), a reflective person is someone who reflects on what he has seen or heard who contemplates, and who is a deliberate thinker. She goes on to say that a reflective person thinks about critical issues and is receptive to the voices, ideas, and suggestions of others. Stout (1989), are those who strive for control over their classrooms and professional life; they are those who critically monitor thought processes and establish systems and techniques of inquiry and analysis of educational rationales. They also predict the outcomes of their preparation and instruction. Furthermore, they approach instruction with problem-solving skills and take satisfaction in generative learning. Thoughts. Finally, they are adaptable and flexible, always evaluating student needs and altering classroom activity as needed. Calderhead (1990) defines reflective instructors as those who can analyze their activities as well as the circumstances in which they occur. Reflective teachers, in his opinion, are supposed to be able to step back from their teaching, evaluate problems, and accept responsibility for their future actions.

Review of related study:

Boukahos (2017). The purpose of this study was to determine the level of reflective thinking among student teachers of science and mathematics enrolled in a practicum course at Bahrain Teachers College. The descriptive analytical method was utilised in the study, and the sample included 68 male and female students majoring in mathematics and science. The research tool was a type of evaluation of teaching

performance. The study provided the following results: The amount of reflective thinking among the student teachers was high, and there was a positive correlation between reflective thinking and the students' cumulative average. The study also found that there is no connection between reflective thinking and students' school year, teachers' years of experience, overall teaching performance of student teachers, or teaching abilities.

Mohammed (2017) conducted a study to determine the efficacy of a training programme based on constructivist theory in establishing some reflective teaching skills. The observation card was used in a quasi-experimental study. The study sample included 103 Arabic language female students participating in a professional diploma programme. The study discovered that the training programme was beneficial in developing reflective teaching skills among female Arabic student teachers.

Moradkhani, Raygan, and Moein (2017) studied the potential links between teachers' reflective practices and self-efficacy. A survey and follow-up interviews were used to collect data from 102 Iranian EFL teachers. The findings revealed that reflection subscales had statistically significant positive associations with instructors' self-efficacy. Furthermore, metacognitive reflection was discovered to be a predictor of teachers' self-efficacy. According to the analysis of the interview data, reflection increased instructors' self-efficacy through mastery experience, vicarious experience, verbal persuasion, and physiological/emotional arousal.

Abu Salim's (2016) examine sought to investigate the effect of developing conscious reflective practices of the university teacher on improving his teaching performance through a set of reflective instruments in five aspects of teaching performance: preparing for teaching, preparing students for course study, teaching methods, interaction with students, and evaluating students' learning. The descriptive analytical approach was utilized in the study, and the instrument was a training programme, in addition to an analysis of the program's reflective dialogues. . The study showed that there is a need to generalize the training programme for reflective practice in sustainable development programmes, as well as to use mini-style practices in training for reflective practice.

Alkaltham (2014) aimed to determine the efficacy of a programme based on reflective teaching in improving the competences of reciting and memorising the Holy Koran among student teachers of Islamic Education at Umm Al-Qura University's Faculty of Education. The quasi-experimental approach was utilised in the study, and the instrument used was an observation card, as well as the use of the reflective teaching programme. The study's sample consisted of (70) students divided equally between an experimental and a control group. The study indicated statistically significant differences in favour of the experimental group that studied the reflective teaching programme in gaining abilities in reciting and memorising the Holy Koran.

Rezaeyan and Nikoopour (2013) looked at the relationship between the degree of reflectivity and the teaching experience of 30 EFL teachers in three language schools in Iran. The study showed no significant correlation between the teachers' degree of reflectivity and their years of teaching experience, which suggests that young teachers with few teaching years could be as reflective as their experienced peers.

Odeh et al. (2010) in their study at an English Preparatory School in a Turkish university with 60 teachers, who had varying levels of qualifications and a wide range of teaching experience, examined whether gender, length of experience, and level of education made a significant difference in the levels of teacher's reflection and whether the teachers were aware of their reflective practices. The results showed that teachers employed reflection-in-action strategies far more frequently than reflection-on-action. However, gender, experience, and level of education did not make a significant difference in the teachers" reflection. (e.g., Karadag & Sadik, 2012) have reported a significant relationship between teachers" length of service and their degree of reflectivity..

Ellison (2008) attempted to establish a reflective teaching training programme for primary school teachers. The descriptive approach was used in the study, and the sample included six mathematics and science teachers. An interview was used as a research tool. The study concluded that the application of this programme had a positive impact on the classroom practices of the program's participating teachers in listening, critical reflective dialogue, curriculum development, and the outcomes of students' learning in class through integrating in classroom activities and collaborative discussions.

Capobianco (2007) sought to determine the efficacy of using video, reports, and experimental research in promoting reflective teaching among pre-service teacher educators. The study emphasised the relevance of reflective teaching in generating study settings and providing teachers with the tools they need for professional growth and performance improvement through assessment and learning from their own experiences. The descriptive approach was utilized in the study and a sample of (22) teachers were used. The study stated that instructors' behaviours had changed, and that the experimental research had aided in the determination of goals, the identification and resolution of difficulties, and the improvement of performance.

Minot (2007) aimed to identify the extent of teachers' use of reflective teaching principles during planning, implementing, and evaluating lessons. The research usedthe quasi-experimental method and the study was applied to a sample of (4) teachers. The study instruments included the interview analyzing teachers' documents including study plans. The study results were the following: (3) teachers apply reflective teaching in all that relates to their students and activities, and these are classified as the most reflective teachers in the teachers' category. In the area of application, it was found out that all teachers apply a level of reflection of the event as an element of reflective teaching. There are (3) teachers who use other reflective teaching practices such as self-assessment and reflecting on teaching situations, beliefs and personal values about teaching. The results show that making decisions and justification about processes of planning, application and evaluation based on reflection has an impact on teaching situations and contexts.

Statement of the Problem

Previous study has demonstrated the significance of reflective practices as a current demand for improvement and development in the educational process in order to achieve the desired educational goals, which are positively reflected on students at various educational stages (see, for example, Abu Selim, 2016; Abu Sultan Abu Bakr, 2017; Kaltham, 2016; Mohammed, 2017; Obeidat, 2017). Such approaches enable teachers to adapt to themselves and others by using methods of thinking, processes, and patterns, whether in

the scientific or social sectors. They are also required for dealing with courses in novel ways that go beyond the use of basic mental capacities like memorising, retention, and recall. Teachers are supposed to put theory into practice. The problem stated that **"A study on degree of using Reflective Practices among secondary school science teacher".**

Objective of the study

1. To identify the degree of using reflective practices in planning and preparation, implementation and evaluation among secondary school science teachers.

Research Question

1. What are the degrees of using reflective practices in planning and preparation, implementation and evaluation among secondary school science teachers?

Need of the study

This study is significant for the following reasons:

1- Educational experts and policy makers are interested in incorporating reflective techniques into school curricula and teachers' activities.

2- The findings of this study can provide meaningful gauges for the amount to which science female teachers use reflective techniques both inside and outside of the classroom.

3- The current study may help academics build suggestions for future research on reflective practices for teachers from various perspectives.

Terminology Definitions

Reflective Practices: These are the methods by which a teacher generates self-awareness in order to contemplate his or her tasks, review, analyse, revise, assess, and draw lessons (Shaheen, 2012).

Science teachers: These are teachers who are qualified to teach science in secondary school classes.

Secondary school: Grades 8th to 10th.

Study Limitations:

Location limitation: Secondary Schools in the Palamu district of Jharkhand.

Sample size limitation: Secondary School Science Teachers.

Methods and Procedures:

The Research Design

The researcher was used descriptive method as the most suitable method due to the nature and objectives of the study. The aim of this study was to find the degree of using reflective practices among secondary school science teachers of secondary school in palamu district of Jharkhand.

Study Sample

The study population consists of all secondary school science female teachers in the district of palamu district of Jharkhand with total number of (60) secondary science teachers.

Study tool:

Self developed questionnaire and rating scale (3-point likert scale) were used for the present study. A questionnaire consisting of (47) items was constructed and divided into three areas: planning and preparation, implementation and evaluation.

Procedure of data collection:

The data were collected with the help of questionnaire and rating scale (3-point likert scale). The questionnaire consisted in three domains such as planning and preparation including 21 items, implementation including 17 items and evaluation included 9 items. Researcher had administered questionnaire and rating scale to participants' respective class, and requested to fill them. During this period, the investigator was interacted with secondary science school teachers.

Statistical technique

The following statistical techniques were used to analyze the collected data: Frequency, Percentage, Mode and Median

Delimitations of the Study:

The study was limited to 60 secondary school science teachers of palamu district of Jharkhand. The study was focused on degree of using reflective practices of secondary school science teachers.

Data Analysis and Interpretation:

Degree of using reflective practices in planning and preparation, implementation and evaluation.
[Objective-1 To identify the degree of using reflective practices in planning and preparation, teaching implementation and evaluation among secondary school science teachers.

Research Question 1- What are the degrees of using reflective practices in planning and preparation, teaching implementation and evaluation among secondary school science teachers?

Table-1: The responses of the study sample on the item relating to the field of planning and preparation.

Items	No. of Participant	Median	Mode	Degree of using reflective practices					
				High		Moderate		Low	
				Freq.	%	Freq.	%	Freq.	%
Item-1		3.00	3	37	61.7	22	36.7	1	1.7
Item-2		3.00	3	39	65.0	17	28.3	4	6.7
Item-3		3.00	3	41	68.3	16	26.7	3	5.0
Item-4		3.00	3	45	75.0	12	20.0	3	5.0
Item-5		3.00	3	43	71.7	10	16.7	7	11.7
Item-6		3.00	3	39	65.0	12	20.0	9	15.0
Item-7		3.00	3	48	80.0	6	10.0	6	10.0
Item-8		3.00	3	50	83.3	8	13.3	2	3.3
Item-9		3.00	3	47	78.3	10	16.7	3	5.0
Item-10		3.00	3	46	76.7	8	13.3	6	10.0
Item-11		3.00	3	43	71.7	16	26.7	1	1.7
Item-12		3.00	3	39	65.0	18	30.0	3	5.0
Item-13		3.00	3	43	71.7	16	26.7	1	1.7
Item-14		3.00	3	41	68.3	16	26.7	3	5.0
Item-15	60	3.00	3	40	66.7	18	30.0	2	3.3
Item-16		3.00	3	42	70.0	12	20.0	6	10.0
Item-17		3.00	3	42	70.0	10	16.7	8	13.3
Item-18		3.00	3	47	78.3	7	11.7	6	10.0
Item-19		3.00	3	49	81.7	9	15.0	2	3.3
Item-20		3.00	3	51	85.0	7	11.7	2	3.3
Item-21		3.00	3	41	68.3	18	30.0	1	1.7

N.B- 1. Item-: I think about possible consequences or reaction that my actions or words might invoke. Item-: 2 I follow self discovery to apply my knowledge in my teaching for becoming better reflective teacher. Item-3: I identify the actual needs and expectations of students to be taught in the classroom. Item-4: I discuss practical/theoretical issues with my colleagues. Item-5: I talk to my student to know family background, hobbies, interests and abilities. Item-6 I related on my philosophy and the way it is related to teaching. Item-7: I am aware of my biography or my background and its affects on teaching. Item-8: I try to find out which aspect of my teaching provides me with a sense of satisfaction. Item-9: I think about instances of social injustice in my own surroundings and try to discuss them in my classes. Item-10: I think of ways to enable my students to change their social lives in fighting poverty, discrimination, and gender bias. Item-11: I think about the political aspects and the way it affect students' political views. Item-12: I take into consideration diversity that influences my students' achievements. Item-13: I think of social issues that can influence my teaching in the class. Item-14: I look at journal article or search the internet to see what the recent paradigm shifting in teaching and development. Item-15: I carry out small scale research activities in my classes to become better informed of learning/teaching process. Item-16: I read book/article related to effective teaching to improve my classroom performance. Item-17: I participate workshop/conference/seminar related to teaching learning issues. Item-18: I observe other teachers classroom to learn about their efficient teaching practices. Item-19: I analyze my teaching-learning activities based on the objectives of my lessons to make some changes in the future. Item-20: I relate on the teaching problems happening in my class. Item-21: Before conducting the class, I plan the lesson and anticipate what may happen and try to find a Solution for that.
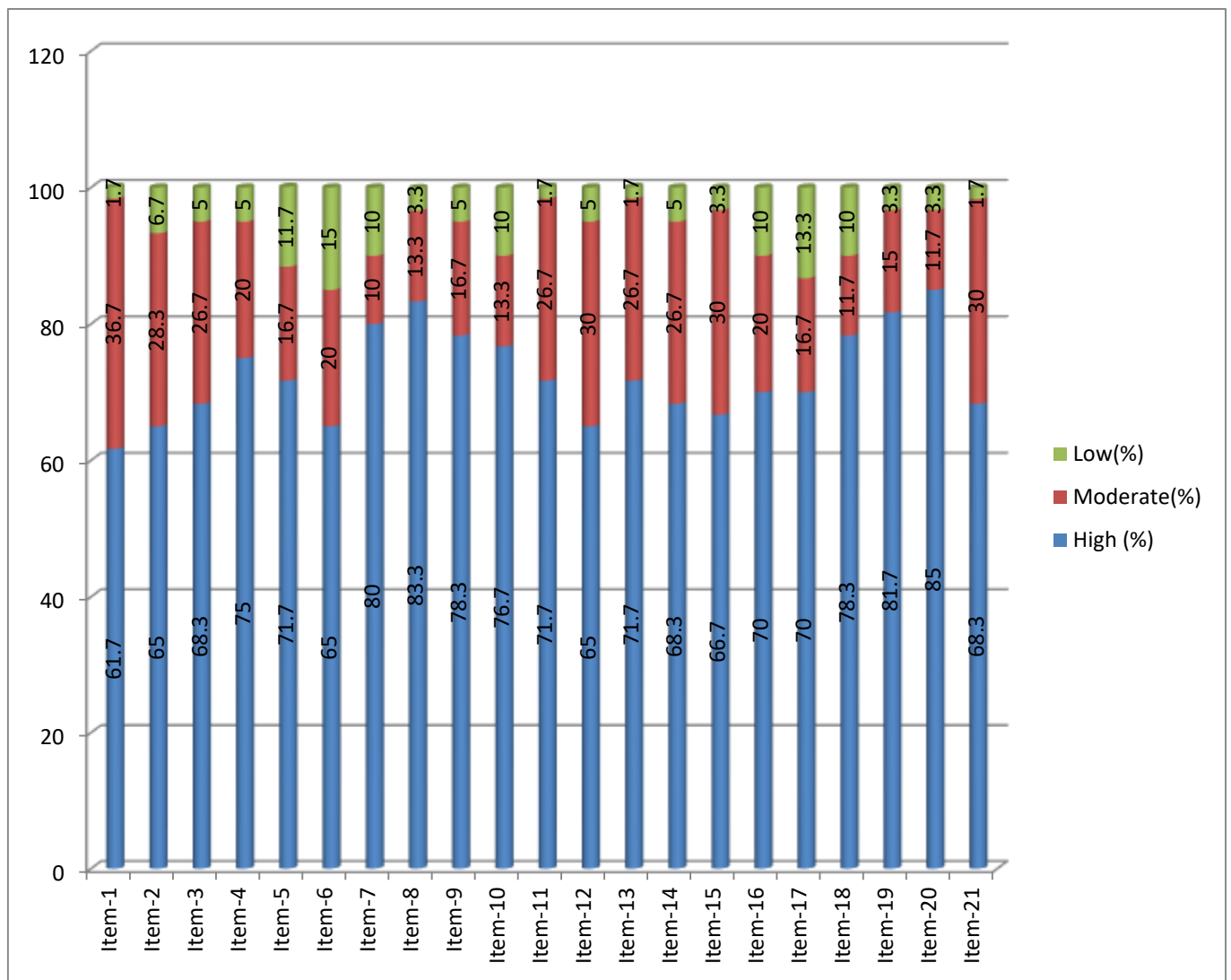
Fig-1: **The responses of the study sample on the item relating to the field of planning and preparation.**

Interpretation:

From the above table-1 and Fig-1 it is seen that more than equal to 70% secondary school science teachers show high degree of using reflective practices in 13 items out of 21 items of planning and preparation phase of teaching practices in their classes. And more than 60% teachers show high degree of using reflective practices in rest items of planning and preparation phase of teaching practices in their classes. Only below 30% teachers show moderate degree of using reflective practices in all items of planning and preparation phase of teaching practices in their classes except item-1 (36.7%). It is also seen in the above table and figure that very few teachers (≤10%) show low degree of using reflective practices in all items of planning and preparation phase of teaching practices in their classes except item-5 (11.7%), Item-6(15.0%), Item-17 (13.3%).

Table- 2: The responses of the study sample on the item relating to the field of implementations.

Items	No. of Participant	Median	Mode	Degree of using reflective practices					
				High		Moderate		Low	
				Freq.	%	Freq.	%	Freq.	%
Item-22		3.00	3	35	58.3	23	38.3	2	3.3
Item-23		3.00	3	41	68.3	19	31.7	0	0
Item-24		3.00	3	38	63.3	20	33.3	2	3.3
Item-25		3.00	3	35	58.3	24	40.0	1	1.7
Item-26		3.00	3	33	55.0	24	40.0	3	5.0
Item-27		3.00	3	36	60.0	21	35.0	3	5.0
Item-28		3.00	3	38	63.3	18	30.0	4	6.7
Item-29	60	3.00	3	32	53.3	25	41.7	3	5.0
Item-30		3.00	3	37	61.7	21	35.0	2	3.3
Item-31		3.00	3	31	51.7	27	45.0	2	3.3
Item-32		2.00	3	29	48.3	25	41.7	6	10.0
Item-33		3.00	3	33	55.0	22	36.7	5	8.3
Item-34		2.50	3	30	50.0	27	45.0	3	5.0
Item-35		3.00	3	33	55.0	26	43.3	1	1.7
Item-36		2.50	3	30	50.0	29	48.3	1	1.7
Item-37		3.00	3	36	60.0	19	31.7	5	8.3
Item-38		3.00	3	33	55.0	25	41.7	2	3.3

N.B. Item: 22 I ask the students to express their feelings and explain reasons for their feelings. Item-23: I adapt the activity or come up with a new activity if the activity used is too difficult for the students. I Item-24: provide opportunities for students to explore their idea and views by using discussions and brainstorming sessions. Item-25: I motivate students to solve problem for developing critical thinking skill and nurture their own idea and build confidence. Item-26: I always look for area of connectivity in what to teach and how to teach with my life experiences. Item-27: I used lesson with Activity-based teaching in my class. Item-28: I integrate journals, audio journals and videos describing incidents in the classroom why things happen in the classroom, and a plan for future action. Item-29: I write dairies and notebook to increase knowledge about what is happening in the classroom. Item-30: I use portfolio for own assessment that help me to improves quality of teaching. Item-31: I get helpful feedback that can improve my teaching from observers (peers, mentor teacher and supervisor). Item-32: I develop a respectful environment and good rapport as per expectations and needs. Item-33: I work together with colleague to have an observation and reflect on each other. Item-34: I relate to the educational philosophies on my teaching by using reflective inquiry (i.e. action research) in classroom. Item-35: Assignments and project its makes my class creative learning environment. Item-36: I provided suitable illustrations and examples during classroom transaction for making more meaningful learning. Item-37: I provide opportunity to all for active participation in my classroom for their self expression. Item-38: Reinforcement is provided by me to strengthen student's responses and active engagement in classroom.
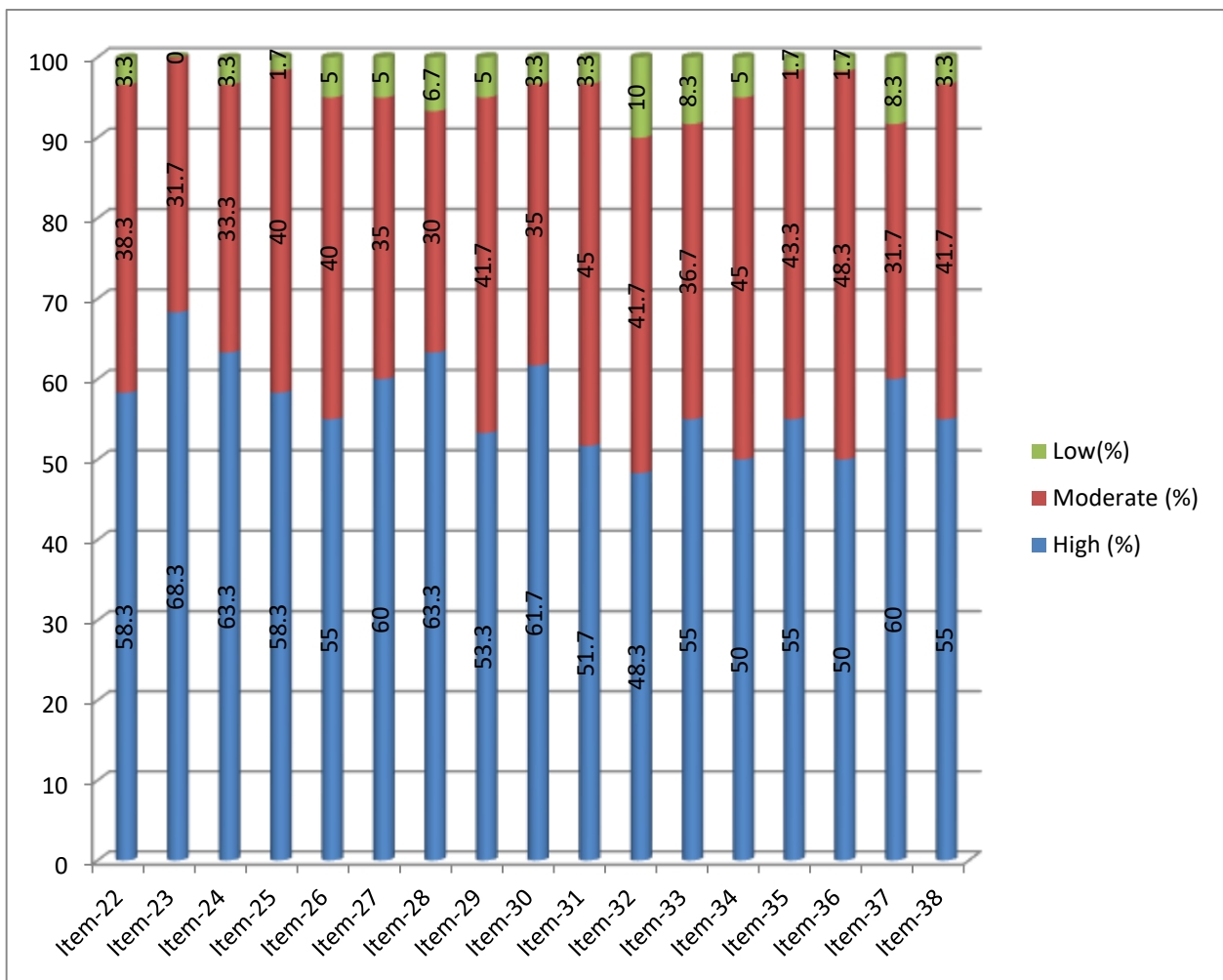
Fig- 2: The responses of the study sample on the item relating to the field of implementations.
From the above table-2 and Fig-2 it is seen that more than equal to 60% secondary school science teachers show high degree of using reflective practices in 6 items out of 17 items of implementation phase of teaching practices in their classes. And more than 50% teachers show high degree of using reflective practices in rest items of implementation phase of teaching practices in their classes except item 32 (48.3%). Only below 45% teachers show moderate degree of using reflective practices in all items of implementation phase of teaching practices in their classes except item-32 (48.3%). It is also seen in the above table and figure that very few teachers (≤5%) show low degree of using reflective practices in all items of implementation phase of teaching practices in their classes except item-25 (6.7%), Item-32 (10.0%), Item-33 (8.3%), item-37 (8.3%).

Table- 3: The responses of the study sample on the item relating to the field of Evaluation.

Item	No. of Participant	Median	Mode	Degree of using reflective practices					
				High		Moderate		Low	
				Freq.	%	Freq.	%	Freq.	%
Item-39		2.00	3.00	29	48.3	25	41.7	6	10.0
Item-40		2.00	3.00	28	46.7	26	43.3	6	10.0
Item-41		3.00	3.00	31	51.7	23	38.3	6	10.0
Item-42	60	3.00	3.00	34	56.7	23	38.3	3	5.0
Item-43		2.00	2a	27	45.0	27	45.0	6	10.0
Item-44		2.50	3.00	30	50.0	20	33.3	10	16.7
Item-45		3.00	3.00	32	53.	24	40.0	4	6.7

				3				
Item-46		3.00	3.00	39	65.0	17	28.3	4	6.7
Item-47		3.00	3.00	35	58.3	20	33.3	5	8.3

a multiple modes exist. The smallest value is shown

N.B. Item-39: I think student's feedback is important because this give me indicator of my strength and weakness. Item-40: I always look at what and how I did during my lesson as important measuring device to know effectiveness of my teaching. Item-41: I discuss about my classroom experiences with my colleagues and see their advice/feedback. Item-42: After each lesson, I write about accomplishment/failures of that lesson and I talk about the lesson to my colleagues. Item-43: I talk to my students to learn about their learning style and preference. Item-44: I under take simple survey/Questionnaire to know more about my teaching quality. Item-45: I try to understand my purposes, intentions, and feeling in any teaching-learning activities. Item-46: After the class, I try to find out the reasons for teaching problems in the previous lesson. Item-47: I always make connection and learn from my experiences and then use it to move forward.
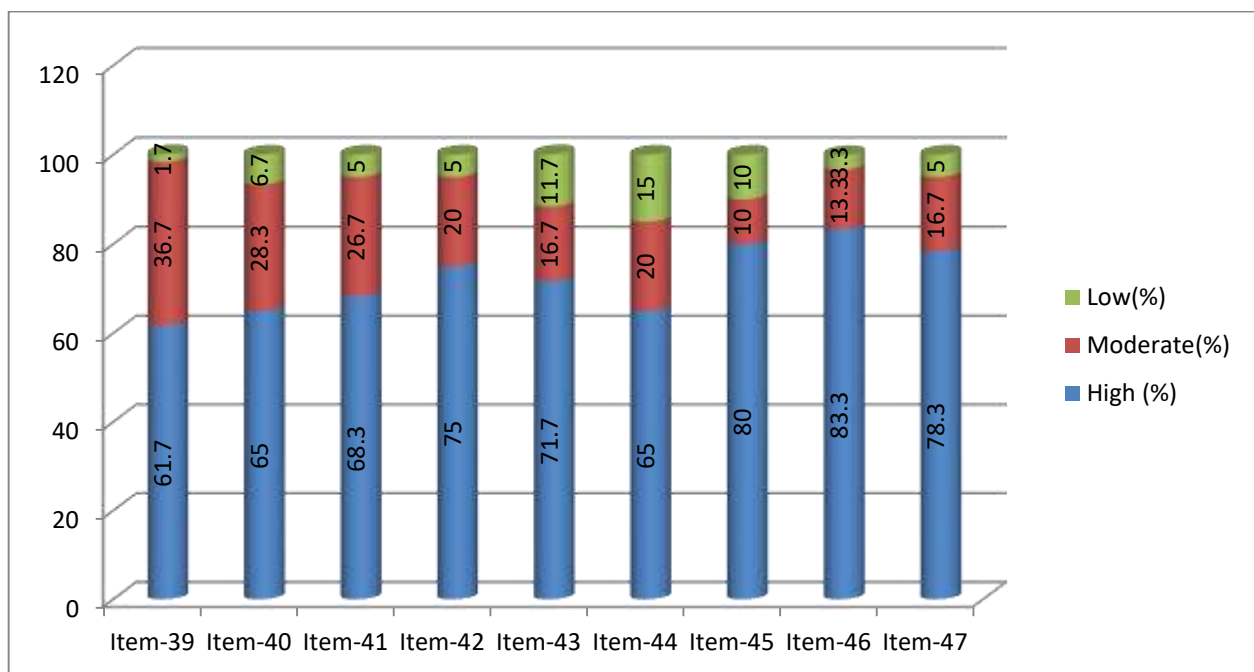

Fig- 3: The responses of the study sample on the item relating to the field of Evaluation.

From the above table-4.1.3 and Fig-4.1.3 it is seen that more than equal to 50% secondary school science teachers show high degree of using reflective practices in 06 items out of 09 items of evaluation phase of teaching practices in their classes. And more than 45% teachers show high degree of using reflective practices in rest items of evaluation phase of teaching practices in their classes. Only below 40% teachers show moderate degree of using reflective practices in all items of evaluation phase of teaching practices in their classes except item-39 (41.7%) item-40 (43.3) item-43 (45.0). It is also seen in the above table and figure that very few teachers (≤10%) show low degree of using reflective practices in all items of evaluation phase of teaching practices in their classes except item-44 (16.7%).

Major Findings and discussion:

Degree of using reflective practices in Planning and Preparation: it is seen that more than equal to 70% secondary school science teachers show high degree of using reflective practices in 13 items out of 21 items of planning and preparation phase of teaching practices in their classes. And more than 60% teachers show high degree of using reflective practices in rest items of planning and preparation phase of teaching practices in their classes.

Degree of using reflective practices in implementation: it is seen that more than equal to 60% secondary school science teachers show high degree of using reflective practices in 6 items out of 17 items of implementation phase of teaching practices in their classes. And more than 50% teachers show high degree of using reflective practices in rest items of implementation phase of teaching.

Degree of using reflective practices in evaluation: it is seen that more than equal to 50% secondary school science teachers show high degree of using reflective practices in 06 items out of 09 items of

evaluation phase of teaching practices in their classes. And more than 45% teachers show high degree of using reflective practices in rest items of evaluation phase of teaching practices in their classes.

Educational Implications: The current study has practical implications for language teachers, teacher educators, and educational organizations. Language teachers can, in particular, obtain considerable insights as how to use reflective practices to improve their teaching enterprises. They can learn how to reflect on teaching and how to take some steps to progress in their teaching practices.

Conclusion: It can be concluded that using of reflective practices in planning and preparation teachers show that high degree of using reflective practices in 13 items out of 21 items of planning and preparation phase of teaching practices in their classes than and after that evaluation in 06 items out of 09 items of evaluation phase of teaching practices in their classes. lastly teachers show high degree of using reflective practices in 6 items out of 17 items of implementation phase of teaching practices in their classes.

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