

GUIDELINES FOR WRITING A GOOD REFLECTIVE PRACTICE

We write reflective practice based on a lesson we have delivered. Reflective practice is structured in the following way: **1. PARTICULARS/LESSON DETAILS**

NAME OF TEACHER:

SCHOOL:

STAFF ID:..... LICENCE NO: PT/.../...

DISTRICT: EMAIL:

REFLECTIVE PRACTICE

NOTE: The above details must be filled correctly and centered (Font 12; Times New Roman)

INTRODUCTION: Just write an introductory statement about the particular lesson you are reflecting on and indicate the lesson details as shown below:

Example: *I developed the habit of reflecting on all lessons I handled at Kobi Senior High School, Obuasi. This piece is focused on a lesson I taught on 17th March 2022. The lesson had the following features:*

SUBJECT: ELECTIVE MATHEMATICS **CLASS:** 2D1 B SHS2 **N₀ ON ROLL:** 60
TIME: 11:00am – 12:00pm (60 mins.) **TOPIC:** INEQUALITIES AND LINEAR PROGRAMMING

SUB-TOPIC: Graphical Method of Solving Simultaneous Linear Inequalities in Two Variables

SPECIFIC OBJECTIVES: *By the end of the lesson, the students will be able to:*

1.1 use the graphical method to solve at least two (2) problems involving simultaneous linear inequalities in two variables in a manner accepted by experts in the field of mathematics.

1.2 interpret the solution of simultaneous linear inequalities in two variables appropriately.

T/LM: *A chart showing steps for solving simultaneous linear inequalities in two variables.*

Teacher Support Materials: *Graph board/book, Teacher's notes written on marker board, Projector, Laptop computer, a 2-min. video on solutions to linear inequalities in two variables*

RPK: *Students can identify and draw graph of a given linear inequality in two variables.*

REFERENCES:

Asiedu, P. (2010). *Elective Mathematics for West African Senior High Schools (SHS 1-3)*. Aki Ola Publications, Accra- Ghana. p.213-216.

Asiedu, P. (2010). *Elective Mathematics for West African Senior High Schools (TG 2)*. Aki Ola Pub. Accra- Ghana. p. 45-46.

Ministry of Education (2010). *Teaching Syllabus for Elective Mathematics (SHS1-3)*, Curriculum Research and Development Division (CRDD), Accra-Ghana, p. 7

3. PLANNING THE LESSON

Write briefly on how you applied your teaching philosophy to plan the lesson. For example:

With ample knowledge on my learners' strengths, weaknesses, interests, class size, mathematical language proficiency, average age, and student-student relationship, I planned and organized the lesson. I identified the following possible difficulties the students may face in the lesson and then rehearsed on specific strategies to apply in order to counter the difficulties: (Bullet some misconceptions that your learners may likely to have in the minds about the concepts in the lesson. for example: difficulty plotting coordinates such as $(0, -2)$, $(3, 0)$ in the cartesian plane etc)

LESSON DELIVERY

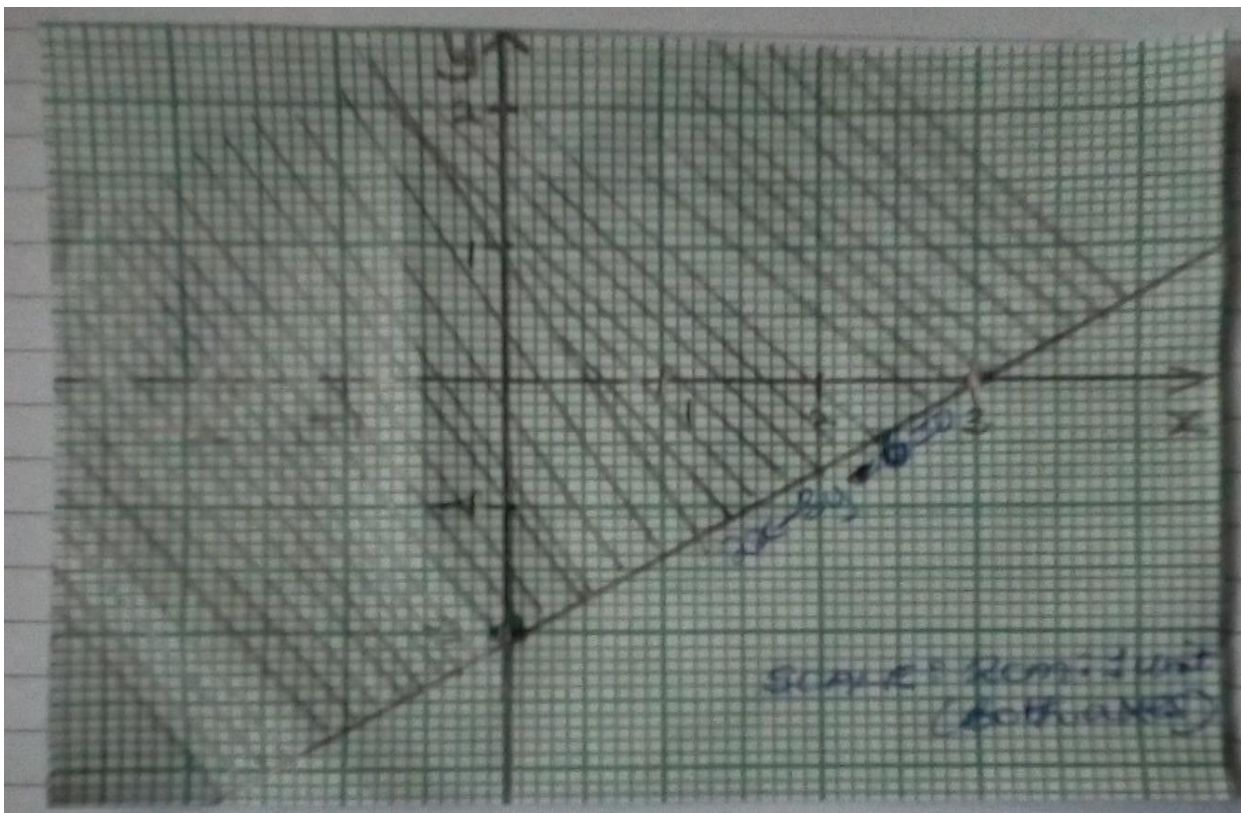
- (a) Write the lesson in a chronological order indicating all the steps you will implement for your learners to understand the concepts.
- (b) Make sure you sequenced all the teaching methods, strategies, approaches and techniques that are recommended by your teaching philosophy here.
- (c) Give the recommended solution to all the tasks you will give your learners.
- (d) If the lesson involves graphs, pictures ect, kindly do well to insert them appropriately
- (e) Make room for an application question that will help your learners transfer the knowledge gained to other areas in the subject.

EXAMPLE

STEP 1: I wrote the question "Solve the inequality: $2x - 3y - 6 \leq 0$ graphically" on the whiteboard and then guided the students to solve for consolidation. I called a student to produce the answer on the whiteboard, discussed it promptly, and allowed two students selected at random to solve ample examples to help students without the relevant previous knowledge.

EXPECTED ANSWER:

(a) $2x - 3y - 6 = 0$, Using $x = 0$ and $y = 0 \Rightarrow (0, -2)$ and $(3, 0)$. Draw the Cartesian plane with appropriate scale, plot $(0, -2)$, $(3, 0)$, and join to form a line graph. (b) Choosing any point on either side of the line to check which one satisfies $2x - 3y - 6 \leq 0$. By inspection, $x = 0, y = 0 \Rightarrow 2(0) - 3(0) - 6 \leq 0. \Rightarrow -6 < 0 \therefore (0, 0)$ satisfies the inequality so shade the region above.

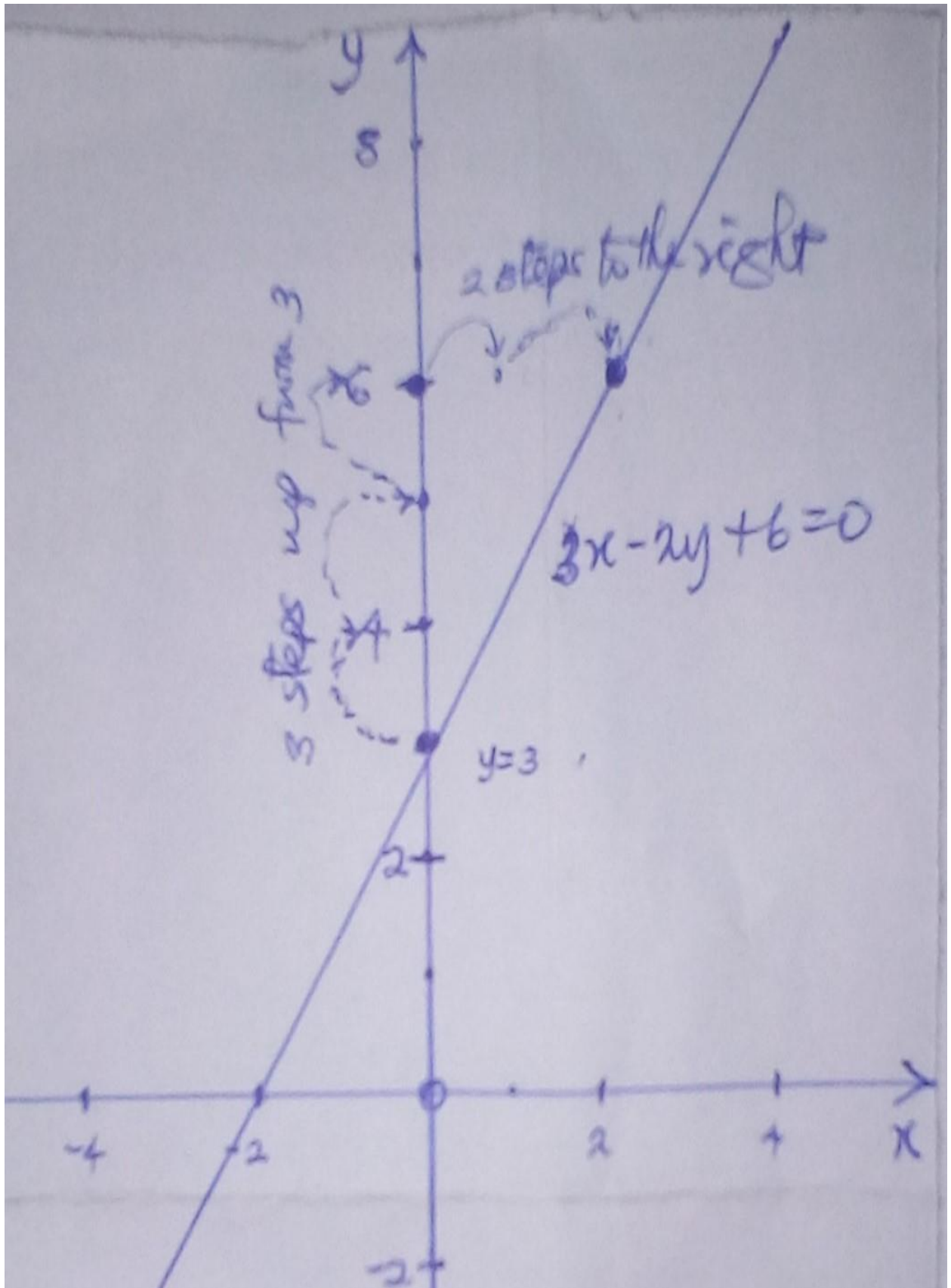


CHALLENGES: This is indicated after the last step/activity of the lesson. State some challenges/difficulties some learners experienced in the lesson. For instance, **some students had difficulty graphing straight lines in the Cartesian plane. (Kindly note that you will provide an innovative strategy you used to resolve the challenge)**

CAUSE: Write down a possible cause of the challenge or difficulty you indicated above. For example: *The Cumulative nature of the topic affected students' accommodation of conflicting concepts*

INNOVATIVE SOLUTIONS: Show how you solved the indicated difficulty/challenge innovatively please. For example, **(Refer to the above challenge):**

I had the opportunity to reteach graphing straight lines in the Cartesian plane with a different strategy illustrated below: For example: Given that $3x - 2y + 6 \geq 0$, we express it in the form $y = \frac{3}{2}x + 3$, where $m = \frac{3}{2}$ (gradient) and $c = 3$ (y-intercept). We draw the Cartesian plane and interpret $y = \frac{3}{2}x + 3$ as: indicate a dot at $c = 3$ (y-intercept), move 3 steps up (since 3 is '+' for m) to reach 6 on the y-axis and 2 steps (denominator) to the right and make a dot there. Join your points (check if the line should be continuous or not). Your line graph should pass through $x = -2$ and $y = 3$ as in STEP IV above. I evaluated the second lesson through individual work and cooperative group work and noticed that about 95% of the students used this simple strategy to identify the nature of straight line graph before they attempt the question



LESSONS AND INSIGHT GAINED: Write down some relevant insights and lessons gained from the instruction

For example: Adequate planning, implementation, evaluation of lessons, measurement of student performance and reflecting on the instructional process must be part and parcel of every mathematics teacher. Problem solving is a critical skill all mathematics teachers aspire to acquire. I have been exposed to all manner of students' misconceptions and ability to solve students' problems and incorporate technology into mathematics lessons have expanded the trajectories of my pedagogical content knowledge.

CONCLUSION: Write a brief conclusion. An example is given below: :

*Reflective practice is an important tool for me because it enables me to identify the strengths and weaknesses of my mathematics lesson delivery and devise innovative ways to improve upon them. As a mathematics teacher, my teaching philosophy is to provide a conducive mathematics learning environment in the social, psychological and pedagogical contexts to promote student mathematics performance. I am so glad to complete and gain more valuable experiences from professional development courses such as (*Give some examples that are related to your teaching philosophy*) This is evident in the instructional strategies and methods I apply in mathematics such as cooperative learning, open discussion, guided discovery, role play, and inquiry. I always acknowledged the uniqueness and individuality of my students and strive very hard to create the atmosphere that will help them maximize their potential.*