**Appendix C**

**Questionnaire on the Causes of Difficulties in the Enrichment of**

**Science Inquiry Skills**

**Dear respondents:**

Kindly rate the causes of difficulties in enriching the science inquiry skills of the learners in General Chemistry 1. The criteria set in this instrument are as follows: **nature of topics, learning environment, learner-related, and teacher-related issues.**

Your truthful and accurate response to the statements below will be significant in the fulfilment of this endeavor. Rest assured that any information you will share will be held strictly confidential.

Thank you very much and may God bless you a hundred fold.

**Direction:** Read the following statements carefully. For negative statements, the rating scale will be reversed. Kindly rate them based on the scales as shown below:

4 – Strongly Agree (SA)

3 – Agree (A)

2 – Disagree (D)

1 – Strongly Disagree (SD)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Criteria** | **4 (SA)** | **3**  **(A)** | **2 (D)** | **1 (SD)** |
| **I. Nature of Topics** |  | | | |
| 1. Inquiry skills activities are embedded in every Science class. |  |  |  |  |
| 1. Topics in Chemistry require intellectual thought and discernment. |  |  |  |  |
| 1. Chemistry has a logical order of topics which makes it easy to grasp the concepts. |  |  |  |  |
| 1. Topics taught in the class are asked using high level of questioning during assessment in Chemistry. |  |  |  |  |
| 1. In order to promote inquiry-based learning, Chemistry does not emphasize the use of evidences from the activities in constructing explanations.\* |  |  |  |  |
| 1. Topics are not presented with increasing levels of complexity from one lesson to another using spiral progression towards deeper understanding of key concepts.\* |  |  |  |  |
| 1. Some topics in Chemistry require the application of Mathematics which makes the subject more difficult to understand and appreciate.\* |  |  |  |  |
| 1. Chemistry has topics that seem unclear and complex in nature such as matter, precision and accuracy, atoms, and molecules, stoichiometry, and gas laws.\* |  |  |  |  |
| **II. LEARNING ENVIRONMENT** |  | | | |
| 1. Chemistry classes are held in a conducive learning atmosphere. |  |  |  |  |
| 1. The inquiry skill activities provided consist of practical applications. |  |  |  |  |
| 1. ICT-based learning materials are provided to promote 21st century learning. |  |  |  |  |
| 1. School has facilities like science laboratory, learning centers, audio-visual rooms, among others to promote inquiry learning. |  |  |  |  |
| 1. Poor background in Chemistry during junior high school finds it difficult to promote inquiry learning.\* |  |  |  |  |
| 1. Available learning materials are inadequate to support the class.\* |  |  |  |  |
| 1. Lack of visual presentation makes it difficult to comprehend the lessons.\* |  |  |  |  |
| 1. Unplanned inquiry skill activities affect the teaching-learning process.\* |  |  |  |  |
| **III. LEARNER-RELATED ISSUES** |  | | | |
| 1. Learners are participative in the inquiry-based skill activities. |  |  |  |  |
| 1. Learners prefer independent and/or collaborative learning. |  |  |  |  |
| 1. Learners can easily apply the concepts in their daily life. |  |  |  |  |
| 1. Learners perceive varying concepts in Chemistry easy to enrich the science inquiry skills. |  |  |  |  |
| 1. Learners cannot enrich their science inquiry skills on their own.\* |  |  |  |  |
| 1. Learners cannot easily understand the scientific “language” used in studying Chemistry.\* |  |  |  |  |
| 1. Learners do not have access to innovative ICT-based instructional materials promoting 7E learning model.\* |  |  |  |  |
| 1. Learners have insufficient schema in mathematical application necessary to solve problems in Chemistry.\* |  |  |  |  |
| **IV. TEACHER-RELATED ISSUES** |  | | | |
| 1. Teachers have adequate pedagogical content knowledge in Chemistry. |  |  |  |  |
| 1. Teachers apply constructivist approach in delivering the lessons. |  |  |  |  |
| 1. Teachers provide complete explanations about the concept during abstraction. |  |  |  |  |
| 1. Teachers act as facilitator by letting the learners work independently and/or collaboratively. |  |  |  |  |
| 1. Teachers do not promote the use of 7E learning model in facilitating an inquiry-based learning in the classroom.\* |  |  |  |  |
| 1. Teaching Chemistry still practices conventional teaching approach (lecture, recitation, slidedeck presentation, among others). |  |  |  |  |
| 1. Spiral progression approach is not practiced in the delivery of Chemistry lessons without any connection of the lessons formerly learned to the present ones.\* |  |  |  |  |
| 1. Use of innovative teaching materials in Chemistry is not practiced in order to uplift learner’s interests and motivation in the subject.\* |  |  |  |  |

**Additional Comments/Suggestions**

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