

CHAPTER V

CONCLUSION, IMPLICATIONS, AND RECOMMENDATION

5.1 Conclusion

The previous chapter focused on diagnosing students' understanding of three key concepts: Micronutrients, minerals and zinc, and absorption and disposal. The four-tier diagnostic test revealed significant mistakes, misconceptions, and confusion at the students' end. The results indicate that 35% of the learners do not know the digestive system, meaning more than one-third were low in basic understanding. As such, it is arguable that fundamental teaching about the digestive system does not reach all students, leading to gaps in comprehension.

More than 28.5% of the students demonstrated scientific knowledge and the correct understanding of the concepts. Again, this suggests some students did have a firm understanding of the digestive system, but certainly, many more were confused or did not know. 16% held misconceptions. Most of these misconceptions find their basis in highly simplified or even wrong explanations linked to digestion, particularly the roles of micronutrients, minerals, and mechanisms related to absorption and disposal. This sets a target for educational interventions to rectify misunderstandings and reinforce accurate scientific concepts.

Over 13% of students' responses showed false positives, which means students identify correct answers without true understanding. False negatives were recorded in responses for about 6.9%. This reduced percentage suggests that while some students make mistakes despite understanding, this is less than the other categories. However, it still indicates the need to improve how best students apply their knowledge when it involves assessments.

The study results show that the students either did not know or held many misconceptions about the digestive system. This research further emphasizes the need to

work on instructional strategies and emphasize areas where students are most likely to misunderstand or oversimplify complex biological processes.

5.2 Implication

The results of this research have several relevant implications. First, utilizing the four-tier test instrument is very useful for identifying students' misconceptions about the digestive system. It would help educators to get a better understanding of student understanding and design more effective teaching strategies. Second, it was found that some students still hold misconceptions about minerals and zinc, which suggests the importance of overcoming misconceptions about concepts in learning. Interviews with students participating in this research have, thirdly, outlined the listening to and understanding of student perspectives.

Learning thus implies that educators shall take into consideration the students' perspective and adapt approaches and learning materials to best support students in their needs and understanding.

5.3 Recommendation

Researchers suggest that efforts to reduce the percentage of students who have misconceptions about the digestive system and its function using new teaching methods should be used interactive and practical experiences about the function of micronutrients, minerals and zinc, and the processes of absorption and elimination. In addition, there are recommendations to continue conducting assessments using several tools, such as the four-tier diagnostic test, which can ensure continuous monitoring and correction of these students' misconceptions. And finally, if you can process the data as quickly as possible, you can interview students and teachers directly to find solutions to common misconceptions.