

# Language Skill Acquisition, a Buffer for Science Education/Difficulties in Nigeria

## INTRODUCTION

- Nigeria is a multilingual society with over five hundred languages.
- Science education in Nigeria is at a low ebb.
- Scientific languages are complex and abstract.
- “Learning the literacies of science, or fundamental scientific literacies, is essential for students to develop scientific literacy, or derived scientific literacy” (Fees & Quinn, 2017, p. 194).

## RESEARCH QUESTIONS

1. What makes science language different from other subjects?
2. To what extent does this language's complexity hinder comprehension?
3. In what linguistic ways can this language's complexity be simplified?

## METHOD

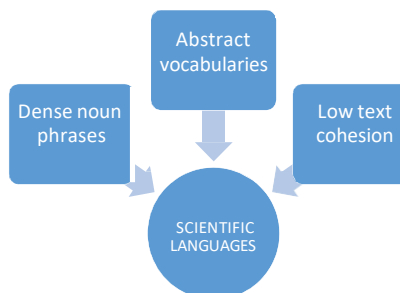
- Review of relevant studies.
- Morphological/semantic analysis of the word ‘photosynthesis’ in three biology textbooks written by non-native speakers of English language.

## DISCUSSION

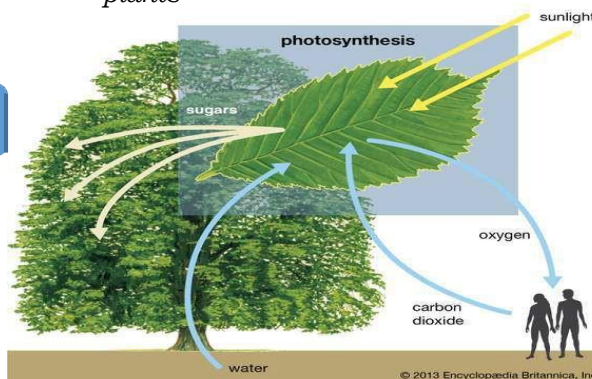
- *Reference to the root word and word frequency: Higher frequency of word is important for acquiring word knowledge (Teng, 2019)*

Name of Textbook	Frequency of photosynthesis and variants in chapter	Reference to the root word
Essential biology	Approx. 30 times	Nil
Modern biology	Approx. 60 times	Nil
Comp. Cert. biology	Approx. 50 times	Nil

- *Use of abstract vocabulary and text cohesion*



- *Linguistic/diagrammatic explanation of the root word ‘photosynthesis’ in green plants*



## CONCLUSION

- Collaborative effort of scientific textwriters, teacher-education programs, science stakeholders and school-policy makers is inevitable.
- Empirical researches in specific areas of language skill acquisition is required to address the language need in science education in Nigeria.

## REFERENCES

- Fees, S. & Quinn, F. (2017). Teaching the distinctive language of science: An integrated and scaffolded approach for pre-service teachers. *Journal of teacher and teacher education*, 65, 192-204.
- Image retrieved from <https://www.britannica.com/science/photosynthesis>
- Teng, F. (2019). The effect of content and word exposure frequency on accidental vocabulary acquisition and retention through reading. *The language learning journal*, 47(2), 145-158, doi: 10.1080/09571736.2016.1244217