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Contemporary Teaching Methodologies, Their Effectiveness, and the Challenges of Physics Instruction in Senior Secondary Schools in Sierra Leone

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INTRODUCTION & AIM

Physics education is essential for scientific literacy, technological competence, and national development. However, physics instruction in Sierra Leone continues to face significant pedagogical, infrastructural, and institutional challenges. This study investigates contemporary teaching methodologies, their effectiveness, and the major barriers affecting physics teaching in senior secondary schools.

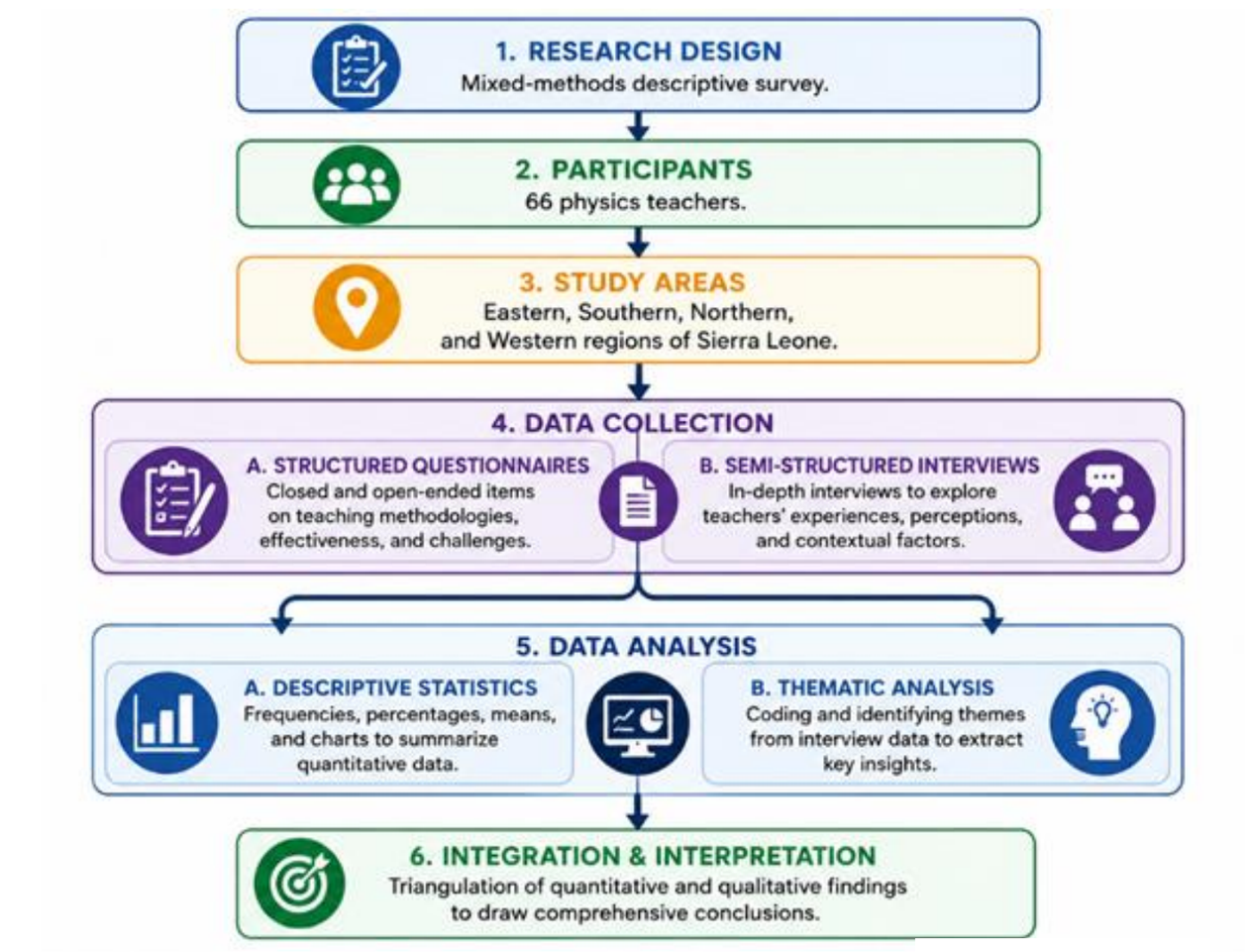
AIM

To identify the challenges of physics teaching and evaluate their effectiveness in Serra Leone secondary schools

Objectives

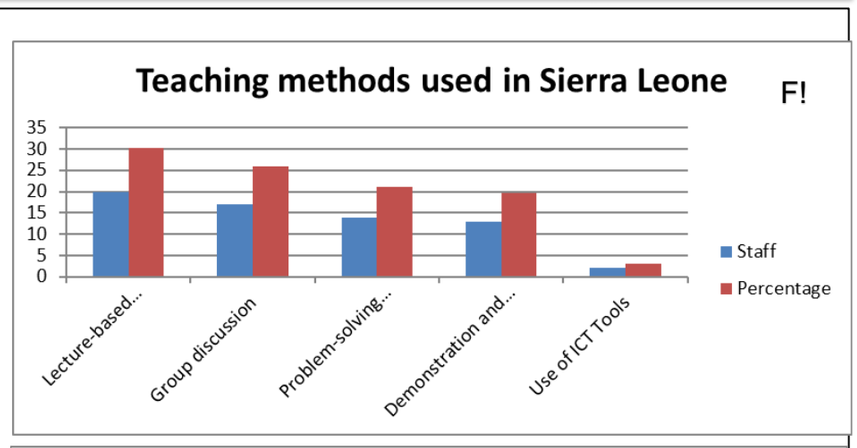
- Investigate contemporary teaching methodologies used in physics classrooms.
- Evaluate the effectiveness of these instructional approaches.
- Identify challenges affecting physics teaching in Sierra Leone.

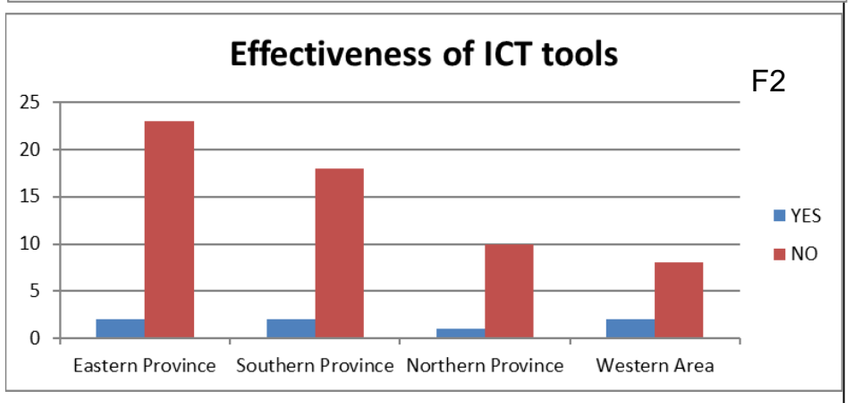
METHOD

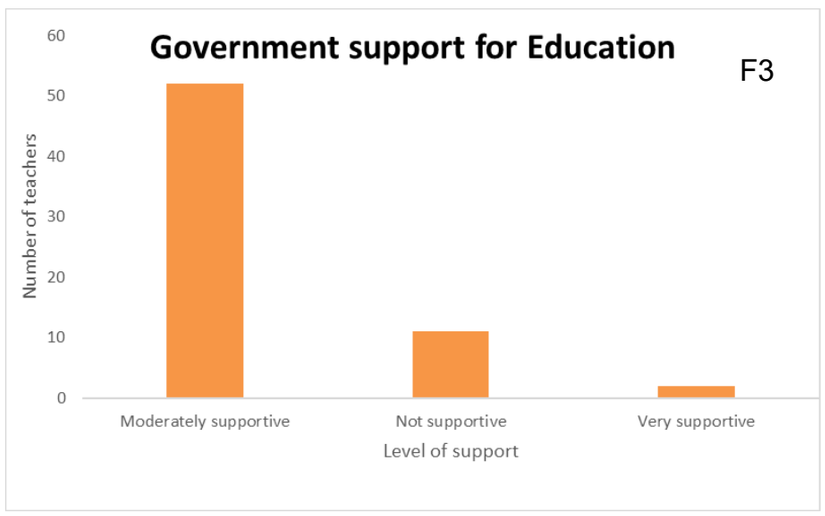


KEY RESULTS & DISCUSSION

The findings reveal a strong dependence on lecture-based instruction (F1), with limited adoption of inquiry-based, experimental, and ICT-supported pedagogies. Although teachers recognize the value of learner-centered approaches and the effectiveness of ICT tools (F2), implementation remains constrained by inadequate infrastructure, insufficient professional development, and limited institutional/government support (F3).







CONCLUSION

Physics instruction in Sierra Leone remains predominantly teacher-centered despite increasing awareness of modern pedagogical approaches. Addressing resource shortages, strengthening teacher professional development, and improving access to ICT tools are essential for enhancing student engagement, conceptual understanding, and academic performance

RECOMMENDATIONS/ REFERENCES

Sustained government and institutional support, aligned with national education goals and international best practices, is essential to promoting innovation, improving teacher motivation, and ensuring sustained improvements in physics education outcomes across Sierra Leone

References

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