"Designing Instrument for Science Classroom Learning Environment in Francophone Minority Settings: Accounting for Voiced Concerns among Teachers and Immigrant/Refugee Students"

By

Bathélemy Bolivar, Ph.D.

University of Manitoba, 2015

The three-phase process -*Instrument for Minority Immigrant Science Learning Environment*, an 8-scale, 32-item see Appendix I- (I_MISLE) instrument when completed by teachers provides an accurate description of existing conditions in classrooms in which immigrant and refugee students are situated. Through the completion of the instrument and consideration of the data emanating from that process, teachers are in a position to move responsively, both individually and collectively, towards enacting practices that will support immigrant and refugee students in their transition to Canadian classrooms and the learning of science, especially within francophone minority settings.

Keywords: Learning Environment Research, Refugee Students, Immigrant students, Cultural discontinuity, Post-colonialism, Division scolaire franco-manitobaine, Science Education, Survey Research, Instrument.

English version

There are 32 questions in this survey. Answer each item according to the context of the school where you work. Think about the statements and determine to what extent they describe the environment of your school.

Mark your answer on the sheet by selecting:

TD: If you totally disagree with the statement
D: If you disagree with the statement
N: If you neither agree nor disagree or if you are unsure
A: If you agree with the statement
TA: If you are totally in agreement with the statement

Check your answers before submitting the questionnaire to be sure that you have made the choices that you have considered doing.

1. I have the time to prepare my classes based on the needs of my newcomer students.
SD D N A SA

2. I value all students in my class.
TD D N A SA

3. Administrators provide me with the necessary support to teach newcomer students.
TD D N A SA

4. Working with newcomer students gives me the opportunity to innovate my teaching.
TD D N A SA

5. Lack of schooling is a major challenge among the newcomer students.
TD D N A SA

6. The newcomer students are informed of the resources available in the school to help them succeed.
TD D N A SA

7. My colleagues are willing to help me, so newcomer students succeed.
TD D N A SA

8. I make an effort to know each student personally.
TD D N A SA

9. I take the time necessary to plan science lessons for newcomer students.
TD D N A SA

10. I feel competent to teach science to newcomer students.
TD D N A SA

11. I believe that all students can succeed regardless of their cultural background and socio-economic status.
TD D N A TA

12. I do not favor any student in my class.
TD D N A TA

13. I have the adequate materials to teach my students and help newcomer students learn in science.
TD D N A TA

14. I know how to plan a lesson incorporating a cultural vision.
TD D N A TA

15. All my students, regardless their background, have the potential to face the same difficulties in science.
TD D N A TA

16. The school division does not offer professional development to help me improve my teaching to newcomer students.
TD D N A TA

17. The history and personal trajectory of newcomer students affect their performance in science.
TD D N A TA

18. I have strategies to inquire about the origins, among others, of the educational trajectories of the newcomer students.
TD D N A TA

19. I know how to differentiate my lessons using the culture of my students.
TD D N A TA

20. I do not have the support needed to teach newcomer students.
TD D N A TA

21. I know how to take advantage of the cultural background of students in my teaching of science.
TD D N A TA

22. My students do not pass because they need more instructional time.
TD D N A TA

23. I am satisfied with my job of teaching science to newcomer students.
TD D N A TA

24. I changed my teaching practices to meet the learning science needs of the newcomer students.
TD D N A TA

25. I know the best practices in science education that can help newcomer students in learning science.
TD D N A TA

26. I think there is an effort to meet the learning needs of newcomer students.
TD D N A TA

27. I pledge to change my teaching to meet the needs of the newcomer students.
TD D N A TA

28. I have a variety of methods to help students learn science.
TD D N A TA

29. My students say I do a good job as a teacher of science.
TD D N A TA

30. If I have concerns about a newcomer student, I know whom to talk to.
TD D N A TA

31. Socio-emotional factors must be taken into account in teaching science to newcomer students.
TD D N A TA

32. I think the academic background of newcomer students prevents them from succeeding in science.
TD D N A TA

Appendix I

Scales and Sample Items from the I_MISLE

Scale	Description of Scale	Sample Item
Resource Adequacy	Teacher perceptions of the adequacy of equipment, instructional material and facilities needed to instruct immigrant students in science	The school is adequately resourced to differentiate science instruction for immigrant students
Time	Teacher perceptions of time necessary for preparation and delivery of immigrant/refugee students' learning needs	Teachers have enough time to prepare lessons that suit refugee students' learning needs
Knowledge of Students' Background	Teacher perceptions of students' socio-economic, cultural, linguistic, emotional and academic background	Teachers are inquiring about students' cultural background
Professional Support	Teacher perceptions of the support available from both school and external sources to support their teaching of immigrant students	Teachers of this school receive the ongoing support needed from the school administration to teach science to immigrant students
Professional Adequacy	Teacher perceptions of their ability and competence to teach science to immigrant students	Teachers at this school are confident in teaching science to immigrant students
Professional Science Knowledge for Integration	Teacher perceptions of the knowledge and understandings necessary to assist students in their learning of science	Teachers have insights in integrating cultural components into the science curriculum
Professional Attitude and Interest	Teacher perceptions of the science attitudes and interest they hold towards learning and teaching science	Teachers are enthusiastic about teaching science to students from different cultural backgrounds
Equity	Teacher beliefs and disposition towards equitable teaching practices	All students are treated equally in my classroom