Analysing Dialogue in STEM* classrooms in Ecuador: A Dual Socioeconomic Context in a High School

1. INTRODUCTION

Close relationship between investment in STEM education and the economic growth of countries. How could a dialogic approach additionally focused on transforming STEM education in the Nueva Cosecha (NC) (Guayaquil, Ecuador) strengthen its teaching process?

2. METHOD

OBJECTIVES

1. Exploring how STEM teachers in NC might cope with the change of educational paradigms through dialogic and transformative learning.
2. Identifying the current profile of STEM teacher in NC to optimise their professional development.
3. Critical qualitative methodology with ethnographic tools.

DATA COLLECTION AND ANALYSIS

- 4 observations + transcripts + reflection + interviews
- Classification of transcripts in communicative situations.

3. RESULTS

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<td>Morning shift</td>
<td>Activation of previous knowledge conceptual definitions</td>
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<td>Emphasising personal opinion and experience</td>
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<td>Development moment</td>
<td>Percentage of turns between similar teachers, though more participated in lesson</td>
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<td>The participants remembered the terminology associated with the previously learned subject.</td>
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<td>afternoon shift</td>
<td>Teaching career</td>
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<td>Economic motivation for teaching</td>
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<td>Did not know dialogism</td>
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4. DISCUSSION

The main benefit of this dialogic and transformative approach lies in the fact that it can provide opportunities to empower teachers and students' participation.

5. CONCLUSIONS

STEM* (Science, Technology, Engineering and Mathematics)


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