A Comparison of Freinet and Traditional Schools from the Liège Communal Public School System: Assessment by Pupils of their Socio-educational Environment and Results at Common External Tests at the end of Primary Education

Jean-Luc Gilles * & Oliver Prosperi **

* University of Teacher Education of State of Vaud (UTE Vaud, Lausanne, Switzerland)
** Institute for Pedagogical Research and Documentation (IRDP, Neuchâtel, Switzerland)

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We present these results today as part of the 21st Annual International Conference on Education for wider dissemination beyond the French speaking community of educational researchers.

The original article in French is downloadable via this Open Access reference:


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1. Introduction

• The Freinet Pedagogy
  – Supporters consider that Freinet pedagogy provides appropriate responses to a current school project:
    . Free expression;
    . Creativity;
    . Self-learning;
    . Dialogue;
    . Collaborative work during joint projects;
    . Methods of personal research;
    . Autonomous organization of work;
    . Learning plans adapted to each child;
    . Scientific approach and critical mind.

Organization of classrooms in Freinet pedagogy
1. Introduction

• The Communal Public School System of the City of Liège (Belgium) and its Freinet Schools
  – Since 1985, progressive creation of a network of Freinet schools
  – A real full-size laboratory concerning more than 1,500 pupils (14% Public School System of the City of Liège) that makes it possible to identify conditions for the emergence, development of an innovative pedagogy
  – Particularities of Liège Freinet schools’ teachers:
    1. Volunteers supporting a charter and a Freinet school project;
    2. Involved in specific continuing education.
  – Particularities of the municipal policy on pedagogical innovations:
    1. Recruitment commissions for the selection of volunteer teachers;
    2. Coherence and pedagogical continuity between the various educational bodies (pedagogical inspection, continuing training institute, ...).
1. Introduction

• Controversy About Freinet Pedagogy

  – Since Freinet pedagogy requires pupils to be autonomous, will autonomous action not mask the lack of access to knowledge for these pupils?

    (Lahire, 2008, Bonnery, 2007)

  – Do Freinet techniques give the false impression of schoolwork by allowing only some of the pupils (a little minority) to produce deep learning?

    (Bakhtine, 1984, Bautier, Rochex, 2004)

  – For its detractors, the Freinet school would not allow pupils to reach the skill levels that pupils acquire in traditional education.

    But what is it really?
1. Introduction

- The opportunity of the availability of a Socio-Economic Index (ISE) in Liège city
  
  - The ISE index is assigned to each pupil "on basis of the socio-economic characteristics of the neighbourhood where he lives", (FWB, 2012, p.26)
  
  - The coexistence of Freinet schools and traditional schools in the Communal Public School System of Liège city offers an opportunity for comparative research on added values that would be specific to Freinet schools, by pairing them with traditional schools on basis of the ISE index.
  
  - ISE index (CDA, 2009) is calculated using a formula that takes into account:
    
    . 1° Income per inhabitant;
    . 2° Diploma Degree level of parents;
    . 3° Unemployment rate, incomes of neighbourhood inhabitants;
    . 4° Professional activities;
    . 5° Comfort of housing.
2. Our Research Questions

• Concerning the external end-of-primary common exams, are there differences in the level of performance of pupils, according to whether they are part of Freinet schools or of traditional schools of the same ISE category in the Liège Public School System?

• Within the same ISE category, does the class climate differ in Freinet schools in comparison with traditional schools of the Liège Public School System?
3. Theoretical Framework

- **Lack of empirical studies**
  - We did not find any articles referenced in the Google Scholar database or in the Education Resources Information Center (ERIC) regarding research comparing schools with Freinet pedagogy and traditional schools of primary education.
  - de Bilde et al. (2013) are also surprised by the lack of studies, methodological weaknesses and mixed results:
    
    «Surprisingly, the effects of these alternative primary schools have seldom been the subject of research, and the research that does exist has methodological limitations or has revealed mixed results» (p. 212).
3. Theoretical Framework

• The question of possible added values of the Freinet pedagogy

  - Carra and Pagoni mention in their article (in Reuter, 2007, p.58) concerning a longitudinal study in a Freinet school (Mons-en-Barœul, France):

    « The participation of pupils in the regulation of school life, the application of the rules they vote, the impartiality of sanctions against those who transgress them translate into a particularly strong feeling of justice in this school, all by contributing to the pupils' adherence to this pedagogical configuration. »

  - Regarding the effects of Freinet pedagogy on pupils learning. Lahanier-Reuter (2007) states:

    « The study of national assessments conducted by R. Hassan confirms pupils' mathematical knowledge is comparable to that of other schools that Freinet in the sector, and that some areas - geometry - outperform them (...) » (p. 215)
Theoretical Framework

- Socio-educational Environment (Janosz, Georges and Parent, 1998)
  - Janosz and his research team at the Université de Montréal have been offering a Socio-educational Environment Questionnaire (QES) since the mid-1990s to draw a portrait of a school in terms of its climate, its problems and its educational practices.
  - Janosz's team distinguishes five components:
    - the relational climate, the atmosphere that reigns between individuals;
    - the educational climate, values given to education in the community;
    - the climate of safety, order and tranquillity of the environment;
    - the climate of justice, just appreciation of the rights and duties of each
    - The belonging climate, when participants feel that their learning environment is positive and meaningful.
4. Methodology

- Janosz’s Socio-educational Environment Questionnaire (QES)
  - The version used in this research comprises a total of 123 questions presented in three major parts, divided into four to seven themes.
  - Compared with the original version, we removed 25 questions because they were of no interest or were not useful, such as the item on the frequency of use of the school bus that doesn't exist in the Communal Public School System of Liège city.
### 4. Methodology

- Janosz’s Socio-educational Environment Questionnaire (QES) we adapted a little for our research

<table>
<thead>
<tr>
<th>Dimensions of the socio-educational environment</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. School climate</strong></td>
<td></td>
</tr>
<tr>
<td>1. Relationship climate</td>
<td>9</td>
</tr>
<tr>
<td>2. Climate of justice</td>
<td>4</td>
</tr>
<tr>
<td>3. Climate of belonging</td>
<td>4</td>
</tr>
<tr>
<td>4. Safe climate for students</td>
<td>4</td>
</tr>
<tr>
<td><strong>II. Educational practices of the school</strong></td>
<td></td>
</tr>
<tr>
<td>1. Implantation and clarity of the rules</td>
<td>6</td>
</tr>
<tr>
<td>2. Teaching Practices</td>
<td>12</td>
</tr>
<tr>
<td>3. Time spent to teach</td>
<td>3</td>
</tr>
<tr>
<td>4. Classroom behaviour management</td>
<td>5</td>
</tr>
<tr>
<td>5. Support for students in difficulty</td>
<td>4</td>
</tr>
<tr>
<td>6. Student participation in school life</td>
<td>3</td>
</tr>
<tr>
<td>7. Collaboration between school and family</td>
<td>5</td>
</tr>
<tr>
<td><strong>III. Problems perceived and lived in the school</strong></td>
<td></td>
</tr>
<tr>
<td>1. School problems perceived and acted</td>
<td>12</td>
</tr>
<tr>
<td>2. Perceived problems of violence</td>
<td>15</td>
</tr>
<tr>
<td>- Perception of the characteristics of individuals who cause problems</td>
<td>2</td>
</tr>
<tr>
<td>- The problems of violence suffered</td>
<td>15</td>
</tr>
<tr>
<td>- When there is the greatest risk of aggression</td>
<td>1</td>
</tr>
<tr>
<td>3. Safety of school premises</td>
<td>12</td>
</tr>
<tr>
<td>4. Access to drugs</td>
<td>1</td>
</tr>
<tr>
<td>Additional data</td>
<td></td>
</tr>
<tr>
<td>General information</td>
<td>3</td>
</tr>
<tr>
<td>Self-revealed school motivation</td>
<td>5</td>
</tr>
</tbody>
</table>
4. Methodology

- The sample of school establishments
  - All Freinet schools (5) of Liège city are part of the sample.
  - 5 traditional schools have been paired with the 5 Freinet schools.
  - Matching on basis of ISE socio-economic index by associating each Freinet school with a traditional school chosen at random.
  - This matching procedure, resulted in a total sample of ten schools of the Communal Public Schools of Liège city.

<table>
<thead>
<tr>
<th>Type of schools</th>
<th>5th grade pupils of elementary school</th>
<th>6th grade pupils of elementary school</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freinet</td>
<td>N = 101</td>
<td>N = 95</td>
<td>N = 196</td>
</tr>
<tr>
<td>Traditional</td>
<td>N = 101</td>
<td>N = 93</td>
<td>N = 194</td>
</tr>
<tr>
<td>Totals</td>
<td>N = 202</td>
<td>N = 188</td>
<td>N = 390</td>
</tr>
</tbody>
</table>
4. Methodology

- **Socio-educational Environment Questionnaire’s Data Collection**
  - Pupils answered the questionnaire on a strictly anonymous basis.
  - They completed the questionnaire over two periods of 50 minutes (with a break of 20 minutes).
  - Preparation meeting: protocol explained to the 13 people who administered the QES questionnaire.

- **External end-of-primary common exams’ Data Collection**
  - Common external exams are framed by a strict protocol of the Wallonia-Brussels Federation (FWB).
  - Corrections are made using a detailed correction grid by a group of teachers (they do not correct the exams of their own pupils).
  - We used the latest data available concerning these exams at the time of our research.
Results

- Analysis of the Socio-educational Environment data

  - The averages obtained for the 3 dimensions (school climate; pedagogical practices; school problems) reveals a systematically more favourable situation for the Freinet schools

  I. School climate

  Freinet schools :: Traditional schools

  II: Pedagogical practices

  Freinet schools :: Traditional schools

  III: School problems

  Freinet schools :: Traditional schools

- Variables’ Effect sizes of the items of these 3 dimensions are all positive (small and medium).
Results

• Analysis of the Socio-educational Environment data
  – Example of distribution chart that shows a contrasted situation particularly in favour of Freinet schools (red bars): item "Participation of students in school life"
Results

- **Results of the end-of-primary common external exams**

  - The analysis of table below shows differences in results according to the Socio-Economic Index (ISE) level of schools.

  ... But does not allow us to affirm that there are significant differences between Freinet and traditional school classes (5\textsuperscript{th} and 6\textsuperscript{th} grades) in a similar ISE level concerning the results on external common examinations.

<table>
<thead>
<tr>
<th>Groupe ISE = 1 ou 2</th>
<th>Frantaise</th>
<th>Mathematiques</th>
<th>Eveil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freinet (n=3)</td>
<td>65.94 (sd=1.4)</td>
<td>66.13 (sd=2.81)</td>
<td>67.83 (sd=5.06)</td>
</tr>
<tr>
<td>Traditionnel (n=12)</td>
<td>66.72 (sd=2.36)</td>
<td>66.42 (sd=1.9)</td>
<td>69.72 (sd=2.58)</td>
</tr>
<tr>
<td>Groupe ISE = 6 ou 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freinet (n=9)</td>
<td>76.80 (sd=3.14)</td>
<td>74.74 (sd=1.68)</td>
<td>80.47 (sd=2.79)</td>
</tr>
<tr>
<td>Traditionnel (n=10)</td>
<td>76.87 (sd=2.58)</td>
<td>74.37 (sd=2.28)</td>
<td>78.59 (sd=1.38)</td>
</tr>
<tr>
<td>Moyenne Communauté française de Belgique</td>
<td>74.40 (sd=2.16)</td>
<td>73.03 (sd=1.46)</td>
<td>77.37 (sd=1.44)</td>
</tr>
</tbody>
</table>
Conclusions

• Socio-Educational Environment
  – Pupils of Liège city network of Freinet schools evaluate in a more positive way their socio-educational environment according to the three dimensions measured by the questionnaire:
    . school climate;
    . educational practices of the school;
    . problems perceived and lived in the school.

• External common examinations (5th and 6th grades elementary school)
  – Our study shows that there is no difference between pupils of Liège city Freinet and traditional schools concerning the level of performance in subjects evaluated in the external end-of-primary common examinations: French, Mathematics, Scientific initiation.
Conclusions

In other words, in terms of the added value of Freinet pedagogy at the end of elementary school in the Liège Communal Public School System, we observe:

• a better quality of socio-educational environment perceived by pupils;

• with an equivalence of pupils’ performance in French, Mathematics and Scientific initiation.
Thank you for your attention!

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