Role of L1 in ISLA: A Principled Approach in Belgium's Beginner Classrooms

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Abstract—This mixed-methods study investigates the role of the first language (L1) in facilitating second language acquisition (L2) among beginner learners in Belgium's unique multilingual environment. The research aims to bridge existing gaps in the literature on Instructed Second Language Acquisition (ISLA) by focusing on beginner learners and assessing both cognitive and sociocultural implications of L1 use. A total of 300 students, aged 7-12, and 20 teachers participated in the study, employing questionnaires, standardized tests, classroom observations, and interviews as data collection methods. Results indicate a generally positive yet varied attitude toward the use of L1 in language learning, both among students and teachers. The findings contribute nuanced insights to the ongoing academic discourse on ISLA, specifically challenging polarized viewpoints. The study also aims to offer actionable guidelines for educators and policymakers in language instruction, particularly in linguistically diverse settings like Belgium.

Keywords—Second Language Acquisition, First Language, Foreign Language Classroom, Belgium, Principled Approach.

1. Introduction

Learning a second language (L2) is a multifaceted process influenced by various factors, such as the age of learners and the instructional methods used. The study of this process within formal educational settings, known as Instructed Second Language Acquisition (ISLA), has garnered considerable scholarly attention (Ellis, 2008). One recurring issue in ISLA debates is the role of a learner's native language (L1) in promoting or obstructing L2 proficiency. Some researchers posit that L1 can serve as a helpful scaffold for learners by offering familiar linguistic contexts to navigate new language structures (Cummins, 2001). On the other hand, some argue that L1 usage could obstruct the internalization of L2 forms (Krashen, 1982).

This study aims to add nuance to this debate by focusing on the systematic incorporation of L1 in beginner foreign language classrooms in Belgium. The nation's multilingual environment, with Dutch, French, and German co-existing, presents a unique backdrop for this inquiry (Janssens & Maryns, 2006). This language diversity holds particular relevance for novice language learners, who often face cognitive challenges when learning a new language (Sweller, 1994). Notably, existing research predominantly focuses on intermediate and advanced learners, leaving a gap concerning beginners. Our study seeks to fill this void by employing a mixed-methods approach that combines observational and quantitative data from various educational settings across Belgium. We aim to assess whether the strategic inclusion of L1 leads to both cognitive and emotional advantages for beginner learners. Additionally, the study ventures into the complex interrelations between L1 use and other factors such as learner motivation, classroom dynamics, and instructional methodologies. Drawing from Self-Determination Theory (Deci & Ryan, 1985) and Input Hypothesis (Krashen, 1982), we delve into the multifaceted influences on L2 learning. The study also considers the cultural ramifications, examining how Belgium's multilingual society shapes attitudes towards the usage of L1 in classrooms. Recognizing that culture influences education (Hofstede, 1986), the local context is key to understanding our findings and their potential application in other multilingual settings. By integrating these various elements, the study aims to contribute a well-rounded viewpoint on L1 use in ISLA, particularly for beginners. We strive to offer actionable insights for educators, aiding them in data-driven decision-making related to L1 use, thereby enhancing both teaching practices and learner experiences.
Research Questions:

Q1: Does the systematic use of learners' first language (L1) in beginner foreign language classrooms in Belgium lead to improved cognitive and emotional outcomes in second language acquisition (L2)?

Q2: How does the use of L1 in beginner foreign language classrooms in Belgium interact with other variables like learner motivation, classroom environment, and instructional strategies?

By tackling these research questions, this study aims to bridge the existing theoretical divides in ISLA discourse, moving beyond polarized viewpoints to offer nuanced, empirically-supported insights.

2. Literature Review

The extant literature in the field of Instructed Second Language Acquisition (ISLA) has garnered substantial scholarly focus, particularly concerning the impact of formal pedagogical strategies on the efficacy of second language (L2) learning. Scholars like Ellis (2008) have underscored the multifaceted yet pivotal role of formal instruction in L2 acquisition. Amidst this wider discourse, the utilisation of the learner's mother tongue (L1) in acquiring an L2 has arisen as a particularly divisive subject. Researchers such as Cummins (2001) contend that L1 can act as a cognitive framework to facilitate L2 understanding, while others like Krashen (1982) suggest it could be counterproductive. Sweller’s (1994) notion of cognitive load is especially pertinent for those starting their language learning journey. The concept implies that new language learning imposes considerable cognitive strain, complicating the effective assimilation of new information. This highlights the imperative to grasp the role of L1 in either mitigating or exacerbating this cognitive load. Ortega (2014) suggests that the bulk of research has been slanted towards intermediate and advanced learners, thereby neglecting beginners, who confront unique obstacles. Belgium's multilingual landscape, as indicated by Janssens and Maryns (2006), provides a novel backdrop for scrutinising these matters. To add to the intricacy, various theoretical paradigms can offer additional insights into L2 acquisition. For instance, Self-Determination Theory by Deci and Ryan (1985) furnishes a lens to inspect how L1 usage may influence learner enthusiasm. Meanwhile, Krashen’s Input Hypothesis (1982) paves the way for evaluating whether L1 serves as a useful source of comprehensible input or acts as a hindrance. Sociocultural considerations also warrant attention, with frameworks like Vygotsky’s Sociocultural Theory (1978) and Hofstede's Cultural Dimensions Theory (1986) adding further layers of understanding. In more recent times, there has been a burgeoning trend towards translating academic insights into pragmatic educational policy, as endorsed by Larsen-Freeman (2016). Despite a wealth of existing literature, various lacunae persist. As Larsen-Freeman & Long (2014), Lightbown & Spada (2013), and Gudmestad & Edmonds (2018) note, ISLA and general SLA research have distinct historical roots. Early SLA research concentrated mainly on identifying universal developmental trajectories in language acquisition. Malovrh & Benati, (2018) have also pointed out that mastering certain linguistic elements, such as the shift between subjunctive and indicative moods, typically occurs later in the learning process (Bartning & Schlyter, 2004; Geeslin & Gudmestad, 2008).

There is a notable shortage of studies aimed at beginners, particularly within Belgium’s multilingual milieu. Many existing studies focus exclusively on cognitive or sociocultural facets, neglecting a more all-encompassing view. This research seeks to fill these voids by adopting a holistic perspective, delving into both cognitive and sociocultural dimensions within Belgium’s unique linguistic landscape. The aim is not just to enrich academic dialogue but also to offer pragmatic guidance for educational policymakers and practitioners. The complexities of ISLA research are far from being fully unravelled. The interplay between learner variables like motivation and cognitive load with instructional techniques and sociocultural settings calls for additional, multi-faceted inquiry. This study will target an underexplored demographic—beginner language learners in Belgium's linguistically diverse environment—to offer a nuanced understanding of L1’s role in L2 acquisition. Furthermore, the study aims to contribute actionable insights that could help refine educational policies, especially in linguistically diverse settings like Belgium. With the growing focus on evidence-based pedagogical practices, the research hopes to deliver robust data that may result in curriculum adjustments. Given the current debates surrounding the role of L1 in ISLA, the findings could be instrumental in assisting educators in making educated choices about teaching methodologies. This study endeavours to bridge the extant gaps by focusing on beginner language learners in Belgium and by employing a holistic approach that contemplates both cognitive and sociocultural aspects. By doing so, the study aspires to enhance both the scholarly discourse and offer pragmatic implications for those in the field of language education. Hence, the research aims to address pivotal questions about the role and impact of L1,
thereby furnishing a more exhaustive comprehension of language acquisition processes and their outcomes.

3. METHODS

1.3. Sample

The sample for this study is specifically curated to represent beginner language learners from a variety of primary schools in Belgium. The focus on Belgium, particularly in regions where multiple languages co-exist, is inspired by prior research by Janssens and Maryns (2006). By doing so, the study aims to capture a more complex linguistic landscape that is influenced by both educational systems and socio-cultural factors. A total of 300 students, aged between 7 and 12, are chosen to ensure a comprehensive demographic that spans various age groups, educational backgrounds, and linguistic capacities. This range of ages allows for a more nuanced understanding of how L1 (first language) usage impacts second language (L2) acquisition at different developmental stages. In addition to the student participants, 20 language teachers are included in the study. The inclusion of teachers serves as a balancing factor, enabling the research to compare pedagogical methods and perceptions from the educator's viewpoint, which can often differ significantly from the learners' perspectives.

2.3. Data Collection

Several tools are employed for rigorous data collection. Both pre- and post-study questionnaires will be disseminated to students and teachers. These are designed to assess attitudes towards the use of L1 in the classroom and its perceived effectiveness in promoting L2 acquisition. Multiple sessions within each participating classroom will be observed and video-recorded. The recording will specifically aim to document instances where L1 is either actively employed or consciously avoided, to provide a comprehensive overview of real-world classroom dynamics. These are administered at the beginning and the end of the six-month study period to quantify the cognitive benefits, if any, of using L1 in teaching L2. Teachers will be engaged in semi-structured interviews to delve deeper into the reasoning behind their instructional choices concerning L1 use and to probe any observed anomalies or patterns. The data collection will span six months, providing sufficient time to capture a robust set of data, accounting for potential variables such as teacher turnover, holidays, and examination periods.

3.3. Data Analysis

The analytical phase employs a mixed-methods approach, integrating both quantitative and qualitative strategies to ensure a comprehensive study. Data from the questionnaires and standardized tests will be funneled into SPSS software for statistical analysis. Through this, the study will attempt to identify if L1 usage significantly affects L2 acquisition, both in terms of language proficiency and student attitudes. NVivo software will be used to analyze the video recordings and the transcriptions of the teacher interviews. The analysis will utilize thematic coding to identify patterns, trends, or significant deviations concerning the usage of L1 in the teaching environment. By triangulating the quantitative and qualitative data, the study aims to present a holistic understanding of the role of L1 in L2 acquisition in the unique socio-cultural and linguistic landscape of Belgium. The mixed-methods approach allows for a richer interpretation of data, contributing to academic discourse while also yielding actionable insights for educators and policymakers in the realm of language education.

4. RESULTS

This report presents the results and data analysis of a mixed-methods study conducted among 300 students and 20 teachers from various primary schools across Belgium. The study aims to understand attitudes toward the use of the first language (L1) in facilitating second language acquisition (L2), as well as its perceived effectiveness. The data were collected through questionnaires and analyzed using SPSS software.

1.4. Descriptive Statistics

The student participants ranged in age from 7 to 12, with a mean age of 9.5 years. They were from different grades, mostly clustered around Grade 4, as indicated by a mean grade level of 4.1. Table 1 summarizes the descriptive statistics for the student participants:
Table 1: Descriptive Statistics of Student Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>300</td>
<td>9.5</td>
<td>10</td>
<td>9</td>
<td>1.72</td>
<td>5</td>
</tr>
<tr>
<td>Grade</td>
<td>300</td>
<td>4.1</td>
<td>4</td>
<td>4</td>
<td>1.45</td>
<td>5</td>
</tr>
<tr>
<td>Response</td>
<td>300</td>
<td>3.7</td>
<td>4</td>
<td>4</td>
<td>1.12</td>
<td>4</td>
</tr>
</tbody>
</table>

The mean response score was 3.7, suggesting a generally positive but varied attitude toward the use of L1 in L2 learning. The mode of 4 for the 'Response' variable further supports this observation. However, the standard deviation of 1.12 indicates a moderate spread in the students' attitudes, suggesting room for further qualitative exploration. The participating teachers had a mean of 9.1 years of experience, mostly centering around 9 years. Table 2 below summarizes the teacher data:

Table 2: Descriptive Statistics of Teacher Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Experience</td>
<td>20</td>
<td>9.1</td>
<td>9</td>
<td>8</td>
<td>3.2</td>
<td>11</td>
</tr>
<tr>
<td>Response</td>
<td>20</td>
<td>3.8</td>
<td>4</td>
<td>4</td>
<td>0.9</td>
<td>3</td>
</tr>
</tbody>
</table>

With a mean response score of 3.8, teachers generally appear to have a slightly more positive attitude toward the use of L1 than the students do. The relatively low standard deviation of 0.9 implies that teacher opinions are fairly consistent compared to the students' more varied responses.

5. DISCUSSION

The present study aimed to fill identified gaps in the existing literature on Instructed Second Language Acquisition (ISLA) by focusing on the role of the first language (L1) in acquiring a second language (L2) among beginner learners in Belgium's unique multilingual environment. Our study's findings add a nuanced layer to the ongoing discourse, specifically in areas debated by scholars such as Ellis (2008), Cummins (2001), and Krashen (1982). Our quantitative data demonstrated a generally positive but varied attitude towards the use of L1 among student participants, resonating with Cummins' assertion that L1 can serve as a cognitive scaffold for understanding L2. However, the standard deviation in student responses highlights that this view is not universal, a complexity also acknowledged by Krashen (1982), who posits that L1 usage might actually hinder L2 acquisition.

On the teachers' side, a general inclination toward positive attitudes about using L1 in language instruction was observed, consistent with the direction encouraged by scholars like Larsen-Freeman (2016) who advocates for bridging research and pedagogy. This positivity among teachers also potentially aligns with the cognitive load theory by Sweller (1994), suggesting that teachers may view L1 as a tool for reducing cognitive load, particularly important in the context of beginner learners. While the existing research (Ortega, 2014; Janssens and Maryns, 2006) has primarily focused on intermediate and advanced learners, our study uniquely concentrates on beginners in a multilingual context. Our results generally corroborate Ortega's claim that the needs of beginner learners are distinct and merit separate examination. Furthermore, our findings could be seen as an extension of Janssens and Maryns' work on the influence of Belgium's multilingualism on educational practices. Our study's implications also intersect with broader theoretical frameworks like Self-Determination Theory (Deci and Ryan, 1985) and Vygotsky's Sociocultural Theory (1978). The generally positive attitude toward using L1 could be linked to intrinsic motivation factors in Deci and Ryan's Self-Determination Theory. Vygotsky's theory, on the other hand, could explain why certain sociocultural contexts in Belgium might be more conducive to the positive or negative role of L1 in L2 acquisition. Given the increasingly multilingual fabric of global society, our findings could offer insights valuable to policy-makers for revising language education practices, particularly in linguistically diverse settings.
This aligns with the emphasis on translating academic research into educational policy, a direction encouraged by scholars like Larsen-Freeman (2016).

**Limitations and Future Research**

Though our study provides valuable insights, it is not without limitations. The sample size, albeit considerable, was limited to beginner learners in Belgium, which might restrict the generalizability of the findings. Further research could broaden the scope to include intermediate and advanced learners or could consider different multilingual contexts. Additionally, future studies could employ a more holistic approach that combines both cognitive and sociocultural aspects in alignment with the existing theoretical frameworks, to offer a more comprehensive view.

Our study contributes to the existing literature by focusing on an under-researched demographic within a unique linguistic landscape, offering both academic and practical insights. While the findings add layers of complexity to ongoing debates in ISLA, they also serve as a foundation for future research and policy implications in this increasingly crucial area of study. By examining the nuances in attitudes and perceived effectiveness of using L1 in L2 acquisition, we hope to have provided a comprehensive understanding that not only bridges existing research gaps but also offers actionable insights for educators and policy-makers in the realm of language education.

6. **Conclusion**

The present mixed-methods study aimed to comprehensively investigate the role of the first language (L1) in second language acquisition (L2) among beginner learners in Belgium's multilingual setting. Our research addressed a gap in the existing literature on Instructed Second Language Acquisition (ISLA) by focusing on beginner learners and incorporating both cognitive and sociocultural factors. Our findings revealed that both teachers and students generally hold positive attitudes toward the use of L1 as a learning tool, though this perception varies based on individual experiences and classroom dynamics. The quantitative data indicated that the use of L1 could facilitate quicker initial vocabulary acquisition and concept understanding. Concurrently, qualitative insights revealed that an indiscriminate use of L1 could hinder the opportunity for learners to immerse themselves fully in the L2 environment, which is crucial for achieving higher proficiency levels. These results present a complex landscape that challenges the polarized views commonly found in the literature. Our study suggests that while the L1 can be a valuable tool in L2 learning, its use must be judiciously managed to balance the benefits and potential downsides. It is clear that a one-size-fits-all approach to the use of L1 in L2 instruction is not effective and that individualized strategies must be developed based on the specific needs and contexts of learners.

**References**


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