

Transitional woes: On the impact of L2 input continuity from primary to secondary school

Simone E. Pfenninger
University of Salzburg, Austria
simone.pfenninger@sbg.ac.at

Johanna Lendl
University of Zurich, Switzerland
johanna.lendl@bluewin.ch

Abstract

In this paper, we discuss the problem of articulation between levels in the educational system, as the transition from a rather more communicative, content-based and holistic approach to English as a foreign language (EFL) teaching at primary level to more formal and explicit ways of foreign language (FL) teaching at secondary is often experienced as problematic by students and teachers alike (see, e.g., Muñoz, Tragant, & Camuñas, 2015). The results of a mixed methods analysis are presented, in which we analyzed, through a questionnaire and language experience essays, perceived continuity between input received in primary school and secondary school, as well as learners' beliefs, attitudes and self-efficacy before and after they transitioned to secondary school. Twelve primary schools and six secondary schools in Switzerland participated in the study, with a total of 280 early learners of EFL (biological age 12-13 years, age of onset 8 years). We will argue that one of the main reasons why early FL instruction seems not to bear fruit later in secondary school is that, on the one hand, coherence in curriculum design and practice vary in a few—but crucial—aspects within and between primary schools. On the other hand, the fact that secondary education becomes a meeting point for mixed ability classes also seems to mitigate the potential advantages of an earlier start.

Keywords: EFL; primary school; age factor; young learners

1. Introduction

Continuity has been a recurring challenge since the very first early foreign language (FL) programs at primary school level were launched (Johnstone, 2009). Yet despite observations of what look like negative consequences of a suboptimal primary-secondary transition in different parts of the world, the issue of this transition has not yet been given the attention it deserves as a possible major factor in students' levels of attainment (see Muñoz, Tragant, & Camuñas, 2015). The fact that the transition from elementary school into secondary education has often been described as a ubiquitous fragile moment in students' early educational career (Blondin et al., 1998) has been largely ignored.

In Switzerland, as in many European countries, "implicit" approaches are the norm in early foreign language (FL) instruction in the primary school classroom; in other words, young children under the age of 10 or so are for the most part typically taught in a playful way via songs, games, and so on, with a focus on oral use of the L2. Metalanguage builds rather slowly during the elementary school years in regard to students' L1 for literacy, and thus students cannot yet really benefit from a transfer from this process to the L2 (Jaekel, Schurig, Merle, & Ritter, 2017). Secondary school, by contrast, is characterized by more explicit focus on form. This transition from a rather more communicative and holistic approach to EFL at the primary level to more formal and consciousness-engaging ways of FL learning at the secondary level is often experienced as problematic by students and teachers alike (see Muñoz et al., 2015). This seriously and urgently calls for research into the transition from FL instruction in primary school to FL instruction in secondary school. According to Housen and Pierrard (2005), the efficaciousness of instruction affects not only the route of acquisition and rate of language learning, but also ultimate levels of attainment. In the process of early FL learning, the sustaining of high levels of motivation and continuous development of language proficiency may crucially hinge upon a successful transition from elementary to secondary education (Jaekel et al., 2017).

Students should have a voice in this discussion. The breaks or transitions in the school system are not always easy for them to understand or manage (see Jones, 2016, p. 79). It is thus particularly important to enquire about their perspectives on the dis/continuity of their language journey and their experiences with classroom management and FL input and teaching methodologies in primary versus secondary school. In this study we aim to analyze the degree of continuity between input received in primary school and secondary school, as well as learners' beliefs, attitudes and self-efficacy before and after they transition to secondary school. Twelve primary schools and six secondary schools in Switzerland participated in the study, with a total of 280 early learners of EFL (age of onset, AO, 8

years) who were tested at the end of primary school and at the beginning of secondary school, respectively. Three students were followed longitudinally. The results show that one of the reasons why early FL instruction seems not to bear fruit later in secondary school appears to be that coherence in curriculum design and practice varies tremendously within and between primary schools.

2. On the explicit-implicit dichotomy

It has been argued that young learners rely primarily on implicit learning, while learners who are more (or fully) cognitively mature can make better use of explicit knowledge and learning (García Mayo, 2003; Larson-Hall, 2008; Muñoz, 2009). The precise meaning of *implicit* and *explicit* in this context and the nature of their differentiation cannot be said to be universally agreed upon (cf. Mitchell, Myles, & Marsden, 2013, pp. 136-137), but implicit learning is generally thought of as an automatic, non-conscious and powerful mechanism that results in knowledge which can be accessed quickly and without effort (Dörnyei, 2009; Ellis, 1994). It is claimed to enable “learners to infer rules without awareness” and “internalize the underlying rule/pattern without their attention being explicitly focused on it” (Ellis, 2009, p. 16). However, implicit learning is also seen as a slow process that relies on intensive exposure to input over a prolonged period of time (Tellier & Roehr-Brackin, 2017). By contrast, explicit learning is characterized as involving “conscious awareness on the part of the learner as they attempt to understand material, seek to analyze input, or try to solve production or comprehension problems, e.g. via deliberate hypothesis-testing” (Tellier & Roehr-Brackin, 2017, p. 24; see also Dörnyei, 2009; Schmidt, 2001). However, explicit learning is portrayed as resource-intensive, requiring attention and relying on the processing and maintenance of information in working memory (Jaekel et al., 2017). It is for this reason that (more) mature learners have been considered to be better able to learn explicitly (Jaekel et al., 2017). To turn the argument around, younger children’s poorer performance in classroom settings when compared with older children, adolescents and adults is normally attributed to a combination of their relative lack of cognitive maturity, exposure to minimal input, coupled with young children’s predominant reliance on implicit learning, which, as indicated above, is purportedly a slow process that requires considerable input to be maximally effective (Tellier & Roehr-Brackin, 2017).

A limited-input situation that relies on so-called implicit FL learning is currently perceived as the norm at primary-school level in Switzerland and elsewhere in Europe. However, the general assumption that the focus of early FL programs is merely on “playful-like acquisition of the L2” is a bit of a myth; particularly at the upper primary level, the nature of some of the exercises in the

course books (e.g., word lists, rules, translations, error correction) is indicative of more explicit attention to accuracy. Research with young FL learners suggests that even though “implicit” learning appears to be the default, children aged around 7 may already begin to draw on explicit knowledge and learning (Barton & Bragg, 2010; Milton & Alexiou, 2006; Tellier & Roehr-Brackin, 2017). Children may well be able to learn explicitly, especially if they are exposed to explicit instruction (Lichtman, 2013). Tellier and Roehr-Brackin (2017) hypothesized that if children’s explicit learning capacity could be enhanced, they might derive greater benefit from even minimal L2 exposure. They investigated whether and to what extent instruction in Esperanto as a “starter language” could help foster 8- to 9-year old primary-school children’s development of metalinguistic awareness and, by extension, their ability to engage in successful L2 learning in a minimal-input setting. Their results suggest that explicit instruction in a constructed, transparent L2 that comprises deductive, form-focused activities may be effective in a minimal-input environment, not just for cognitively mature learners but also for young learners. Nevertheless, it has been informally reported by learners, teachers and parents that teaching methodology in primary school is significantly different from FL methodology employed in secondary education (see Muñoz et al., 2015; Pfenninger & Singleton, 2017). Successful introduction of an L2 in elementary school needs to take into account students’ level of cognitive development as well as other learner factors such as L1 proficiency level and degree of motivation (Jaekel et al., 2017). The goals of early FL instruction in primary school range from developing favorable attitudes towards languages and language learning, through raising awareness of other cultures and identities, to the enlargement of the linguistic repertoire and cultural horizons of many different communities, among many others (Nikolov & Mihaljevic Djigunovic, 2011; Prabhu, 2009). In other words, the main goal is not necessarily an increase in FL proficiency. Early FL education is thus best characterized by an absence of metalanguage and a focus on oracy (for a discussion of L2 oracy, see Tarone, Bigelow, & Hansen, 2009), contextualized L2, and communicative language learning, which aims to provide ample exposure and opportunities to use the L2 (Housen & Pierrard, 2005). In secondary school, by contrast, grammar is awarded more prominence through teachers’ explanations, exercises in course books, teaching materials, charts on the blackboard, the study of word lists and rules, language-focused compositions, and the use of notebooks, among others (Tellier & Roehr-Brackin, 2017).

Transitioning to secondary school methodology thus shifts from a stronger emphasis on what is seen as implicit to one focused on what is seen as explicit learning and teaching, that is, the overt teaching and learning of the L2 such as grammar or vocabulary and the use of metalinguistic skills (Housen & Pierrard, 2005). We are going to have a closer look at this in the next section.

3. Problems of articulation between levels in the educational system

Several critical issues in relation to the transition from FL instruction in primary to secondary school have been identified in the recent literature (Chambers, 2014; Courtney et al., 2015; Graham et al., 2016; Jaekel et al., 2017; Muñoz et al., 2015; Nikolov & Mihaljevic Djigunovic, 2011; Pfenninger & Singleton, 2017):

1. An abrupt shift from student-centered, “implicit” methodology to more teacher-directed and faster-paced lessons may impact young learners.
2. There is a potential mismatch of student-teacher expectations regarding FL teaching methods used in class, which may cause a decrease in motivation, particularly if students do not receive input that is adjusted to their L2 proficiency level.
3. A lack of coordination and communication between primary school teachers and secondary school teachers, such that often teachers of different levels never meet, observe each other, exchange materials, or attend further training together.
4. Teaching outcomes from elementary schools varying to a great extent, depending on when the language learning programs start, how much time they allocate to early language learning, what type of curriculum they apply, who the teachers are, and how the programs are implemented; thus, as secondary schools welcome students from several elementary schools, teachers are required to be particularly thorough in assessing initial language skills that students in their class have already attained.
5. FL teachers at the elementary school level are sometimes not being trained extensively (yet), as these programs are still relatively new to primary education in some countries in Europe.

A number of transition studies have been conducted in Europe (e.g., Courtney, 2014; Graham et al., 2016), discussing one or several of the points mentioned under 1-5, thereby predominantly relying on questionnaire data and/or interviews. The picture that emerges demonstrates that the issue of transition is by no means limited to the teaching of EFL and it affects the teaching of various target languages.

In the Hungarian context, Nikolov (2017, p. 251) points out that what children actually learn in their L2 in the first years will be forgotten unless it is revised and built on in a regular fashion in later years. She emphasizes that raising children’s interest is easy, yet maintaining their motivation over years often poses a challenge, as their initial enthusiasm tends to decline in the long run (see also Pfenninger & Singleton, 2017). Nikolov (2017) speculates that this loss of motivation is

often caused by test results: "Tasks have to be tuned to their interests and abilities, and teachers have to be able to diagnose where children are in their progress." The problem with the disconnection between primary schools and secondary schools (point C above) has often been observed. Muñoz et al. (2015) gathered evidence with respect to the transition process from primary to secondary school in five primary schools and eight secondary schools in the Barcelona area. Most of what secondary school teachers knew about English in primary school came from what they saw or were told from their first-year students and from their own children. They were used to administering a diagnostic test at the beginning of secondary school that targeted explicit knowledge of English grammar, which students found challenging and demotivating, coming from primary classroom with limited explicit focus on form.

According to Jaekel et al. (2017) the transition in Germany is characterized by an abrupt shift from an oracy-focused curriculum, including assessments, to one that builds on literacy and steep grammatical progression. Not only does methodology shift from relying mostly on implicit learning to explicit teaching and learning that requires metalinguistic knowledge, but a lack of communication between elementary and secondary schools has been identified as a crucial problem. Referring to a variety of previous studies (e.g., Börner, Engel, & Groot-Wilken, 2013; Graham et al., 2016), Jaekel et al. (2017) emphasize that this is particularly important in harmonizing methodology and content in secondary education and providing language teachers with an idea of what levels of L2 proficiency they can expect at the end of elementary school.

Thus, classroom experiences may also have an effect on motivation if they influence learners' perceptions of progress and competence especially around the time of primary-secondary transition, at a point when such a sense of competence becomes especially important for learners (Graham et al., 2016). It is Chaudron's (2001) view that classroom processes are heavily influenced by the structure of classroom organization, in which different patterns of teacher-student interaction, group work, degrees of learners' control over their learning, and variations in tasks and their sequencing play a significant role in the quantity and quality of learners' production and interaction with the target language. As a consequence of classroom effects, individuals are hypothesized to accommodate to the normative environment within their class setting, which leads to cohort effects.

With the objective of contributing to this line of research, the present study explores the following questions:

1. How do learners of EFL perceive the frequency and usefulness of different classroom activities at the end of primary schooling and at the start of secondary school? Does their perception change across transition?

2. To what extent are learners' beliefs and opinions related to classroom environmental conditions and the activities they experience?

4. Methodology

4.1. Learner participants

280 participants had been selected for this paper, who were part of three studies. The main reason for these three studies is that we feel that understanding the complex nature of the transition under investigation requires a complementary approach that combines quantitative and qualitative analyses as well as different student populations.

All of the participants had started being instructed in English in early childhood (grade level 2, AO 8 years), where they had received two hours of English instruction a week, followed by three hours per week in secondary school. The participants were controlled for L1 (Swiss German), additional FLs learned (six years of Standard German and two years of French in primary school), socio-economic status, teaching method and weekly hours of EFL instruction received. In Switzerland, the total compulsory school period amounts to eleven years. Primary level—including two years of kindergarten or a first learning cycle—comprises eight years. Secondary level in academically-oriented high schools takes six years.

4.1.1. Study 1

The sample that formed the basis for our quantitative analysis consisted of 91 primary school students (43 M, 48 F) and 89 secondary school students (46 M, 43 F) from the canton of Zurich in Switzerland. The primary school group was tested during their last semester in primary school (grade level 6), when they were between 12 and 13 years old (mean age 12;1). They attended 18 different classes in 12 primary schools. All the primary school participants were planning to proceed to an academically oriented secondary school in the following academic year, as in Switzerland students are streamed into different branches of secondary school after grade 6.

We employed a cross-sectional design to create a pseudo-longitudinal study (see Gass & Selinker, 2008) by comparing the primary school group data with the data collected from the 89 secondary school students 5-6 months into secondary school. Learners in this group were slightly older (mean age 13;1, range 12-13) than the participants in the primary school group. The 89 participants were nested within 10 classes that were nested within five secondary schools.

4.1.2. Study 2

For the qualitative analyses we selected 100 secondary school students (41 M, 59 F) also from the Zurich area of Switzerland, who were part of an 8-year longitudinal project called *Beyond age effects* (see Pfenninger & Singleton, 2017), in which we analyzed the effects of age of onset vis-à-vis the learning of English that manifest themselves in the course of secondary schooling in the context of a multilingual educational model. The participants in this group were tested six months after they began academically oriented high school when they were 13 years old (mean age 13;8, range 13-14). The 100 learners were nested within six classes that were nested within five schools. One out of the five schools was in a suburban area, while the others were in urban school districts.

4.1.3. Study 3

Due to organizational reasons, it was impossible to follow all the students in their transition to secondary school. Therefore, we created a focal group that comprised three learners—two boys and a girl, who we shall refer to in the following as Noah, Tobias and Laura—who were included in both data collections and whose results were analyzed quantitatively as well as qualitatively. The three participants were in the same classes as the primary school children in Study 1 and shared the same characteristics. This group enabled us to obtain a true longitudinal perspective of the transition from primary to secondary school.

4.2. Tasks and procedure

In the context of the quantitative approach, we focused on the students' perspectives on the different teaching methodologies, the distinct tasks in the classroom as well as on the input they received in primary or secondary school respectively. To this end, a questionnaire consisting of 34 closed-ended items was administered to the primary and secondary school groups in the pseudo-longitudinal design (Study 1). Multi-item scales were created for eight dimensions of classroom activities (cf. Dörnyei, 2010, p. 23). The eight dimensions were aimed at exploring the teaching approaches practiced on primary versus secondary school level (see Table 1) and their orientation towards implicit or explicit learning. The items in the first two dimensions refer to the communicative and meaning-oriented approach that is typically associated with primary school teaching and designed to promote implicit learning (cf. EDK-Ost, 2009, pp. 6-7; Muñoz et al., 2015),

Table 1 Information about the multi-item scales

| Dimension | Variables | No. of items | Sample item |
|-----------|---------------------------|--------------|--|
| 1 | Implicit: production | 4 | We sing songs in English. |
| 2 | Implicit: input | 4 | We watch movies in English. |
| 3 | Explicit: vocabulary | 6 | We learn how to spell words. |
| 4 | Explicit: grammar rules | 4 | We conjugate verbs or learn tenses. |
| 5 | Explicit: strategies | 5 | I look up words in a(n) (online) dictionary. |
| 6 | Use of German | 4 | Our teacher uses German in English class. |
| 7 | Classroom material | 4 | We work with a course book. |
| 8 | Socio-cultural awareness. | 3 | We learn facts about people in English-speaking countries. |

The items in the first dimension focused on exercises calling for language production, such as for example role-playing, whereas the second dimension was aimed at different types of input in the classroom, such as listening to audio texts or watching video clips in English. Three dimensions (3-5) referred to items enquiring about tasks that direct learners' attention to L2 form, either deductively (e.g., through the presentation of grammar rules) or inductively (e.g., by asking learners to look for or work out patterns). These approaches are typically associated with FL instruction in secondary schools. However, they are not particularly unusual either towards the end of primary school in Switzerland. Moreover, the use of German in the EFL classroom constituted a separate dimension that tapped into teacher or student use of the local language(s) (Swiss German or Standard German), as it has been suggested (e.g., in Pfenninger & Singleton, 2017) that there is frequent use of the L1 in the EFL classrooms in Swiss primary schools. In the seventh dimension, we decided to investigate the employment of different teaching materials such as course books, worksheets, or authentic materials as different materials might contribute to perceived difficulties when transitioning from primary to secondary school. Finally, our last category focused on aspects of learning that enhance the examination of cultural or social circumstances in the English-speaking world and strengthen the link between language and culture. It was deemed important to incorporate such items, as awareness-raising of different cultures and societies constitutes one of the principal aims of early FL instruction (EDK-Ost, 2009, p. 11, European Commission, 2004, p. 16).

The individual categories were allotted between three and six items that each targeted a specific classroom activity. For every item, frequency of use and perceived usefulness were elicited: For the former, a five-point Likert-type scale was used, which provided absolute frequency indications (*every lesson – once a week – once a month – less often – never*) to minimize subjective interpretation of the scale and to present enough possibilities for a precise answer (cf. Dörnyei, 2010, p. 29). To ascertain the perceived usefulness, the participants had to rate the activity on a 3-point scale, ranging from *very useful* to *not useful*. Finally, the list of items was randomized and translated into German. The participants were given 20 minutes to complete the questionnaire. The questionnaire was piloted with a

group of primary and secondary school students ($N = 7$, mean age 12;5) and subsequently revised in order to increase validity and reliability. Importantly, what is meaningful is not necessarily the observed or perceived change from primary to secondary school, but rather how individuals relate to it. As Jones (2016, p. 80) rightly points out, it is important to ask for and listen to the views of students in all that affects them directly. Children are well able to give revealing and honest views about their learning, and students of all ages can show a remarkable capacity to discuss their learning in a considered and insightful way. Accordingly, in order to give a better account of the nature of the transition as perceived by learners and (often hidden) variables such as motivation, attitudes and beliefs, we used language experience essays in our qualitative group and in the focal group, which we hoped would elicit: (a) the participants' personal reflections on their experience of FL learning in primary versus secondary school in general, and the transition in particular; (b) the participants' affect in respect of FLs, and English in particular; and (c) the participants' beliefs about the age factor and early FL programs. The use of these essays was based on the idea that, on the one hand, learners' beliefs are—consciously or unconsciously—gleaned from past experience, and that, on the other, learners' beliefs have an influential role in respect of learning outcomes (see, e.g., Gregersen & MacIntyre, 2014). We provided loose guidelines for the writing. These stated: "You should write about your feelings, thoughts, opinion, motivation as well as any experiences with regard to the early or late introduction of multiple foreign languages." No specific length was set, but the participants were asked to write these essays in their L1 (German); students wrote between 203 and 475 words in 45 minutes. These essays provided the basis for our qualitative analysis.

4.3. Method and statistical analyses

4.3.1. Study 1

Since the sampled students were nested in a hierarchical fashion within classes within schools, we used *R* (R Development Core Team, 2016) and *lme4* (Bates, Maechler, & Bolker, 2008) to perform a linear mixed-effects regression analysis (multi-level analysis) of the self-reported (attitudes to) classroom activities and input in primary versus secondary school (see Pfenninger & Singleton, 2017 for a discussion of the benefits of such models for age-related research). As fixed effects, we entered school level (primary, secondary) into the model and recoded them to use contrast coding ($-.5 = \text{primary}$, $.5 = \text{secondary}$). Contrast coding is recommended in the case of two-level factors, as it can prevent some convergence issues by reducing multicollinearity among the predictors (see, e.g., Linck & Cunnings, 2015). Frequency of use of activity (on a five-point scale), and perceived

usefulness of activity (on a three-point scale) were dependent variables. The final models had random effects (intercepts) to provide an account of class-to-class and school-to-school differences that induce correlation among scores for students within a school and within a class. In other words, the hierarchical structure of the data on all skills tested consisted of three levels: student (Level 1), class (Level 2), and school (Level 3). The scores on the tests were added to the model at the student level. Since the same items in the questionnaire were presented to both groups of participants (i.e., primary and secondary students), we included a random slope in the model, which allows the school level effect to vary by item (by-item random slopes).

Visual inspection of residual plots did not reveal any obvious deviations from homoscedasticity or normality. Models were fit using a maximum likelihood technique. *P*-values were obtained by likelihood ratio tests of the full model with the effect in question against the model without the effect in question. All models reported were fitted using Laplace estimation with the *R* software. Also, all models were first evaluated with likelihood ratio tests (test model vs. null model with only the control variables). If the full model versus null model comparison reached significance, we present *p*-values based on likelihood ratio tests. Given the lack of degrees of freedom with mixed models, we refrain from reporting *df*.

4.3.2. Study 2

In the qualitative analysis we pursued a predominantly deductive approach (see Ellis & Barkhuizen, 2005), concentrating specifically on issues related to the transition from EFL in primary to EFL in secondary school. As mentioned in the literature review above, various factors seem to contribute to student disengagement and may be responsible for the observed lack of enthusiasm to engage with English in school. Accordingly the following codes were developed:

- Change from primary to secondary [CHA]
 - Welcoming the change [WEL]
 - Criticizing the change [CRIT]
 - No change [NOCHA]
 - Repetition [REP]
 - Differences in learning style [LSTYLE]
 - Differences in teaching style [TSTYLE]
 - Explicit versus implicit [EXPL] [IMPL]
- Learning effect [EFF]
 - Perceived efficiency of EFL learning in primary [EFFPRIM]
 - Perceived efficiency of EFL learning in secondary [EFFSEC]

- Input [INP]
 - Teacher [TEACH]
 - Materials [MAT]

It has to be mentioned, however, that while some of these codes were created before engagement with the data began, some changed once the analysis got underway, and codes got deleted and others were added (inductive coding, see Ellis & Barkhuizen, 2005, for a discussion of this). In the inductive, bottom-up approach we proceeded through the traditional steps from open coding (finding all possible themes that emerge) via axial coding (finding relationships between themes) to selective coding (finding the overarching theme) (see Corbin & Strauss, 2007).

5. Results

5.1. Quantitative analyses (Study 1)

Table 2 shows the descriptive statistics of our quantitative analysis (questionnaire data) while the results of the final best-fitting models for each dependent variable are reported in Table 3. As Tables 2 and 3 show, results indicate that there is a significant main effect for “level” (primary vs. secondary school) for half of the dimensions in terms of frequency of use (implicit input, explicit strategies, use of German and socio-cultural awareness), but for only one dimension in terms of perceived usefulness (socio-cultural awareness). Primary school students reported significantly more often that they engaged in receptive—but not productive—activities that are typically deemed “implicit” (e.g., watching movies, listening to music, etc.) and that they and their teacher used German in the English classroom in various situations. On the other hand, secondary school students mentioned a more frequent use of FL learning strategies such as cross-linguistic comparison, dictionary use, and repetition, and they more frequently reported being engaged in activities that raised their socio-cultural awareness.

Table 2 Descriptive statistics of questionnaire data (means and *SDs*)

| | | Primary (<i>N</i> = 91) | Secondary (<i>N</i> = 89) |
|-------------------------|------------|--------------------------|----------------------------|
| Implicit: production | Frequency | 2.56 (0.50) | 2.52 (0.61) |
| | Usefulness | 1.95 (0.50) | 1.94 (0.39) |
| Implicit: input | Frequency | 3.15 (0.54) | 2.77 (0.53) |
| | Usefulness | 2.24 (0.25) | 2.13 (0.33) |
| Explicit: vocabulary | Frequency | 3.58 (0.69) | 3.66 (0.71) |
| | Usefulness | 2.48 (0.37) | 2.45 (0.32) |
| Explicit: grammar rules | Frequency | 3.29 (0.55) | 3.37 (0.44) |
| | Usefulness | 2.49 (0.29) | 2.45 (0.32) |
| Explicit: strategies | Frequency | 2.91 (0.69) | 3.17 (0.58) |
| | Usefulness | 2.22 (0.27) | 2.27 (0.35) |

| | | | |
|--------------------------|------------|--------------------|--------------------|
| Use of German | Frequency | 3.76 (0.62) | 3.29 (0.58) |
| | Usefulness | 1.83 (0.39) | 1.81 (0.28) |
| Classroom material | Frequency | 3.14 (0.58) | 3.16 (0.44) |
| | Usefulness | 2.10 (0.34) | 2.11 (0.30) |
| Socio-cultural awareness | Frequency | 2.59 (0.72) | 2.91 (0.86) |
| | Usefulness | 2.10 (0.50) | 1.86 (0.49) |

Note. Values in bold indicate significantly higher values.

Table 3 Fixed effect estimates for school level (primary vs. secondary)

| | | Estimate $\beta \pm SE$ | t | Main effect p |
|--------------------------|------------|-------------------------|-------|-----------------|
| Implicit: production | Frequency | -0.05±0.16 | -0.32 | .748 |
| | Usefulness | -0.01±0.15 | -0.08 | .924 |
| Implicit: input | Frequency | -0.38±0.10 | -3.63 | .001* |
| | Usefulness | -0.09±0.06 | -1.67 | .099 |
| Explicit: vocabulary | Frequency | 0.09±0.15 | 0.61 | .519 |
| | Usefulness | -0.03±0.06 | -0.60 | .525 |
| Explicit: grammar rules | Frequency | 0.08±0.07 | 1.04 | .297 |
| | Usefulness | -0.04±0.05 | -0.91 | .363 |
| Explicit: strategies | Frequency | 0.26±0.15 | 2.01 | .049* |
| | Usefulness | 0.07±0.06 | 1.06 | .275 |
| Use of German | Frequency | -0.48±0.19 | -2.54 | .022* |
| | Usefulness | -0.02±0.06 | -0.30 | .704 |
| Classroom material | Frequency | -0.00±0.16 | -0.02 | .992 |
| | Usefulness | 0.01±0.05 | 0.17 | .867 |
| Socio-cultural awareness | Frequency | 0.34±0.17 | 2.05 | .048* |
| | Usefulness | -0.23±0.11 | -2.18 | .033* |

Note. * Statistically significant at $\alpha < .05$.

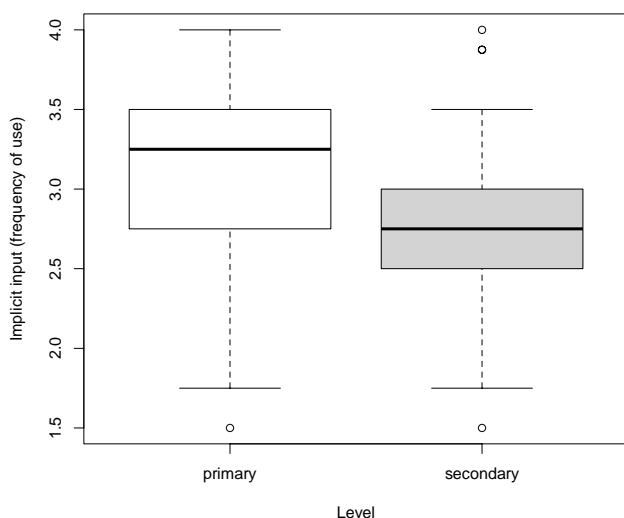


Figure 1 Implicit input by level

Figure 1 illustrates these differences for implicit input. There seems to be no difference between end of primary and beginning of secondary level in terms of typical “explicit,” language-focused activities such as the learning and testing of explicit grammar and spelling rules, the use of exercises such as cloze-tests, focus on forms (e.g., inflections) and the conscious study of vocabulary. What is more, most (i.e., 31) of the 34 questions relating to teaching methodologies, classroom tasks and types of input were considered equally useful/beneficial by primary and secondary school students.

However, it needs to be mentioned that there was substantial macro- and micro-contextual variation in the data, particularly at primary school level. As can be seen in Figures 2 and 3, there are significant cohort effects at Level 2 (class) and Level 3 (school), that is, significant random class effects with estimated intraclass correlation coefficients (ICC) between 0.15 and 0.41. Class effects, therefore, explained 15%-41% of the variability in the responses of the participants, while school effects explained 5%-11%. Figures 2 and 3 show the differences between the 18 primary school classes in terms of frequency of activities targeting implicit production and their perceived usefulness.

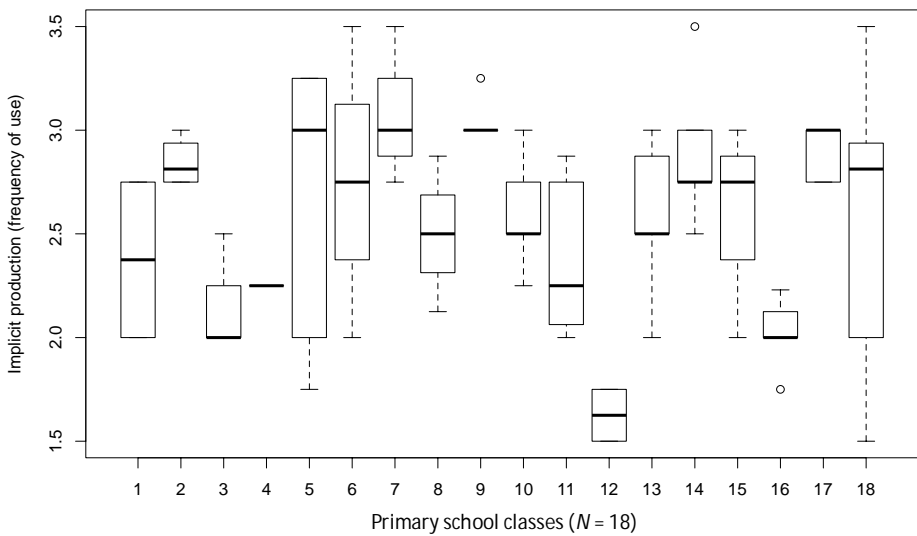


Figure 2 Variation across primary school classes for frequency of implicit production tasks

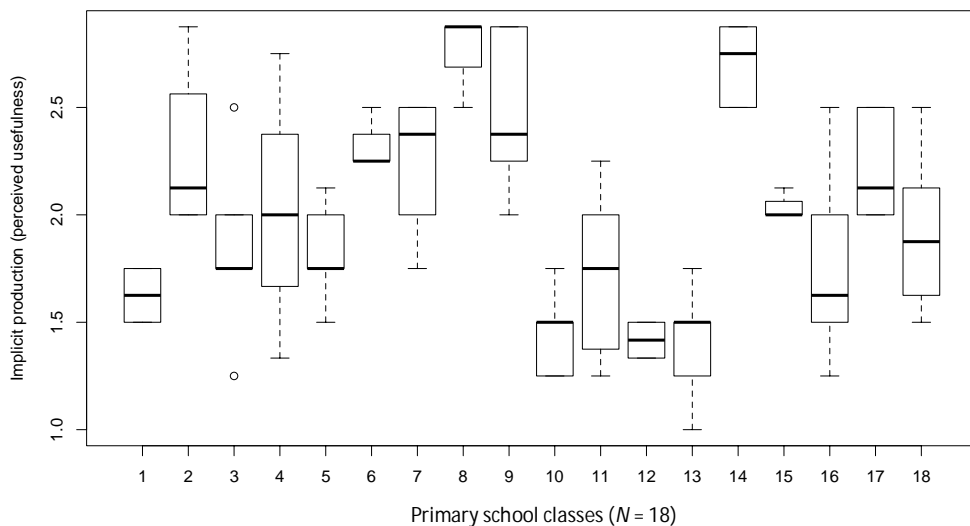


Figure 3 Variation across primary school classes for perceived usefulness of implicit production tasks

By contrast, the cohort effects were not as pronounced in the secondary school data, which admittedly might be due to the smaller sample size at the group level (fewer schools and classes with more students per class, see Figures 4 and 5).

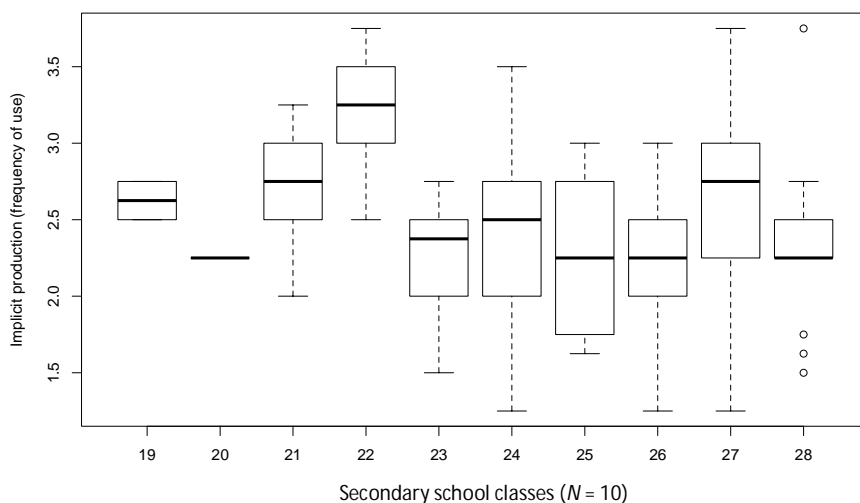


Figure 4 Variation across secondary school classes for frequency of implicit production tasks

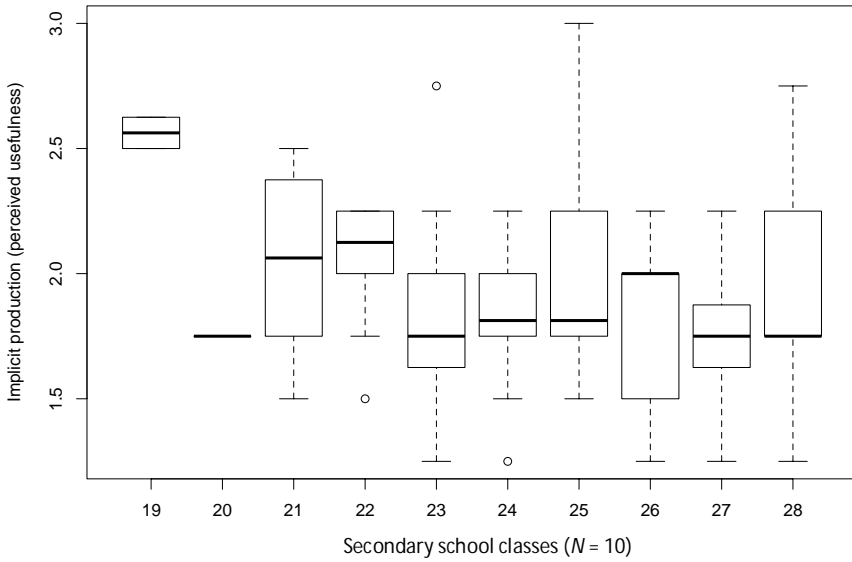


Figure 5 Variation across secondary school classes for perceived usefulness of implicit production tasks

The same holds true at school level, where we find more between-school variability at primary school level than at secondary school level (see Figures 6-7 for implicit production).

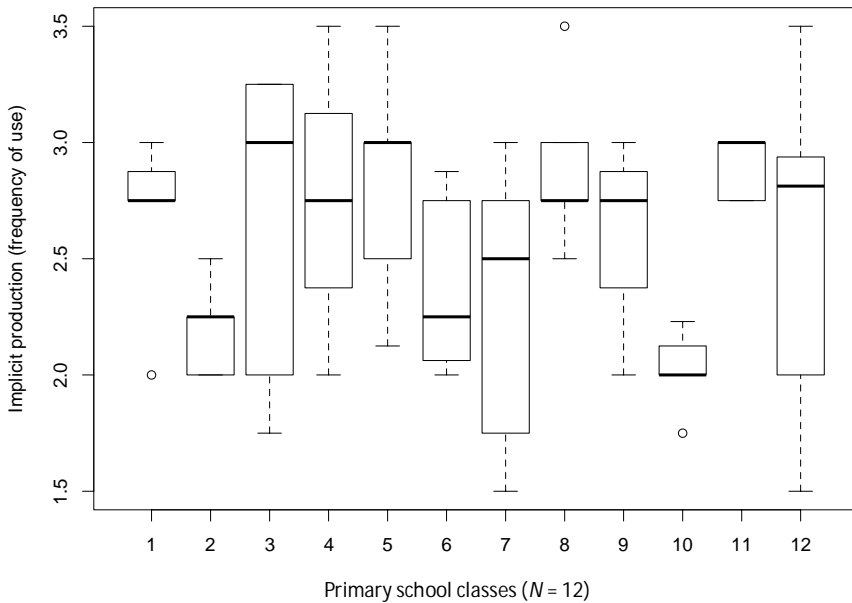


Figure 6 Variation across primary schools for frequency of implicit production tasks

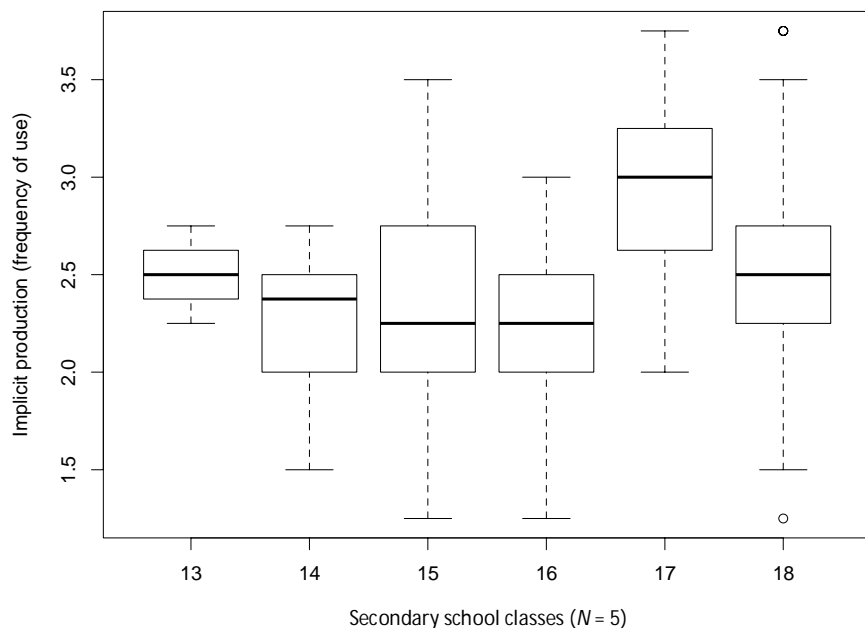


Figure 7 Variation across secondary schools for frequency of implicit production tasks

Apart from group-level differences, it is important to also look into individual variation within classes, this time from a qualitative perspective, using data from Study 2. This is insofar important as it gives students a voice in this discussion, as mentioned in our introduction above.

5.2. Qualitative results of the language learning experience essays (Study 2)

In this section we explore the qualitative data from the language learning experience essays to obtain information about how early learners view the matter of transition from EFL in primary to EFL in secondary school, what the learners themselves would recommend, and about the way they perceive the discrepancy between the two levels. Table 4 lists the categories of responses.

Table 4 Results of the qualitative coding (quantified)

| Categories | % of responses (out of 100) |
|--|--------------------------------|
| Change from primary to secondary [CHA] | |
| Welcoming the change [WEL] | 18% |
| Criticizing the change [CRIT] | 45% |
| No change [NOCHA] | 5% |
| Repetition [REP] | 41% |
| Differences in learning style [LSTYLE] | 23% |
| Differences in teaching style [TSTYLE] | 60% |

| | | |
|-----------------------|--|-----|
| | Explicit vs. implicit [EXPL] [IMPL] | 78% |
| Learning effect [EFF] | Perceived efficiency of EFL learning in primary [EFFPRIM] | 72% |
| | Perceived efficiency of EFL learning in secondary [EFFSEC] | 45% |
| Input [INP] | Teacher [TEACH] | 69% |
| | Materials [MAT] | 14% |

Most participants noticed a change from EFL in primary to EFL in secondary school, either welcoming the change (18%) or criticizing it (45%). As observed elsewhere (see, e.g., Graham et al., 2016), there was widespread comment on apparent repetition by secondary teachers of work already covered in primary schools. As Table 4 shows, 41% of the 100 students in the qualitative sample mentioned that the type of knowledge they had acquired in primary school was not fully acknowledged by teachers in secondary school (see Examples (1) and (2)):

- (1) *But I remember, how the learning in the early years was unfocused and slow. At the higher level it then progressed really fast. On top of this it must be added, that early acquired knowledge has anyway got to be reviewed again in subsequent schooling. After five years of learning English and two years of learning French, I had to start again. (12_ELH9_M_GER)*
- (2) *I'm so glad that we are going over a couple of things again in both subjects [English and French]; e.g. I'm overjoyed that we are especially revising conjugation. (07_ELL9_F_GER)*

23% noticed a difference in learning style and strategy use, as illustrated by the comment in (3):

- (3) *At primary school I didn't learn the technique of learning in English. But now at secondary school I have to learn most of it, because I have to catch up with everything, above all I must learn to learn! (07_Elb55_F_GER)*

Similarly, in the "Strategies" dimension of the questionnaire, the item enquiring about repetition yielded one of the biggest differences between primary and secondary level.

While 72% commented on the in/efficiency of EFL learning in primary (see Examples (4)-(5) below), the most noticeable change in teaching style was the use of classroom language: 56% mentioned a change in the choice of language of instruction from that used at primary school (see (6)-(7)), which confirms the picture that emerged from the quantitative analysis:

- (4) *Yes, I had difficulties. But I think this was because of my former teacher, she taught us the same stuff again and again and we somehow stayed where we were. For that reason I was very much at a loss when I got to secondary. (07_Elb13_F_GER)*
- (5) *I think it's good that I had English as early as 2nd class because actually I didn't feel it as a burden. It was very easy too that we only learned things like "Hello, how are you" and*

general standard things. We learned colors, numbers and animals until finally we were able to make sentences. There were basic rules of a kind that I didn't find tremendously easy but with time you find it easier. I had a good teacher for this too. (07_ELH9_M_GER)

- (6) *At primary school our teacher even continued to speak German, but here at XXX the teacher only speaks English. This is confusing. (07_EL91_F_GER)*
- (7) *I find it cool that our [English] teacher speaks English to us. We are ready for this now, but in primary school it was good that we could still use German [in English class] (07_EL55_M_GER)*

What is also noteworthy about Examples (1)-(7) is the discrepancy in perceptions *within*—rather than *between*—levels. For instance, as Examples (2), (5) and (7) above illustrate, a slow pace and frequent incorporation of the L1 (German) in primary, and repeated content in secondary can be perceived as helpful (particularly by low-achievement students), while other learners—especially high-achievement learners—find it unnecessary and boring (see also Pfenninger & Singleton, 2017). The same holds true for the perceived change from “implicit” to “explicit” learning, which was mentioned by 78% of the participants:

- (8) *At primary school we had “play-English” (never anything but singing, playing, watching films). Today I still sing the songs from that time in “double Dutch”. The real learning of language in this system too begins only at secondary level when you learn sentence construction and basic grammar. (07_ELH1_M_GER)*

However, opinions supportive of this type of approach in primary were also in evidence:

- (9) *When children at an early age are already confronted with foreign languages, they learn to get involved with other languages earlier. With the help of simple games and songs in a foreign language a small vocabulary can be built up. (07_ELH9_M_GER)*

As a matter of fact, 58% of the participants were conscious of the gap between high achievers and low achievers, as well as the conflicting views within one classroom (as reflected in Figures 2-7 above). The comments in examples (10)-(13) illustrate their awareness of both macro-variation (differences between classes) and micro-variation (individual variation within classes):

- (10) *According to my experiences, it's heavily dependent too on the person whether they benefit from the early learning of foreign languages. You have to be aware that at primary school the IQ range is very wide. So for one child French or English instruction may be a trifling thing, for another a hugely excessive demand. (12_ELH7_F_GER)*
- (11) *There are huge differences between children in my class. Some cannot speak a word of English, but it's not their fault; they did not learn it well in primary school. (07_EL19_F_GER)*

- (12) *So actually the teaching should be suited to each child because children learn foreign languages so differently.* (12_ELH3_F_GER)
- (13) *I had no difficulty with the transition. But I was also in a very good class with very good peers in primary school!* (07_EL27_M_GER)

Finally, when it came to the importance of the teacher, the 69% of students who referred to the role of the teacher came out fairly uniformly with sentiments like the following:

- (14) *I think it's a great opportunity to build upon, because wherever you are you can make very good use of languages. But unfortunately the school material is not communicated equally well by all teachers. Some teachers almost make you look like a fool when you don't know something or when you quite simply don't understand the stuff. It's partly a matter for the teacher whether he is friendly or rather unfriendly; because my old French teacher was not open and sincere, I then felt I didn't so much like going to class. With our English teacher at that time I was always pleased to come to class, and English I find more fun; our teacher is open, friendly and very sincere. She communicates a good feeling so that even before a test I don't get as anxious as is usually the case with me.* (07_LLL3_F_GER)

5.3. Qualitative analysis of the longitudinal case study (Study 3)

Finally, let us zoom in on the language learning experience essays written by each of the three members of the focal group (Laura, Tobias and Noah). Similarly to the majority of the participants in the qualitative group, all three participants in the case study perceived the shift of focus from “implicit” to “explicit” learning as well as a difference in the language of communication as important changes that the transition entailed. According to them, while they had watched films, played games and read texts in primary school, in secondary school the main emphasis was placed on problem-solving exercises in the lessons – or in Laura’s words “we do more grammar stuff now, like question formation etc.” (SS2_LLEE_2). Moreover, all three learners perceived the different use of the target language as one of the most striking differences between primary and secondary school. Although Tobias had indicated before the transition that the primary school teacher spoke English “70% of the lesson” (PS6_LLEE_1), as opposed to the “99% English” that his secondary school teacher uses, in retrospect he perceived the change as rather dramatic: He mentions a shift from the primary teacher “speaking virtually only German” to the “current teacher speaking solely English” (SS1_LLEE_2). He welcomed this change, mentioning target language use as a positive quality of his new English teacher. Noah argued along the same lines:

- (15) *The teacher speaks almost exclusively English now, I think this is very helpful. . . . The students should speak English more often in primary school and the teachers should speak English more often as well. (SS3_LLEE_2)*

In addition to the lack of target language use, Noah also criticized the fact that his English instruction in primary school did not follow a communicative, oral-based approach, as the students did not have to speak much in comparison to his current English lessons. By contrast, in Laura's primary school class the use of different languages for communication seemed to have been a central component of the learning experience, as the following excerpt from her essay at the first data collection time shows:

- (16) *I like the lessons, because we talk in English very often. . . . Sometimes [the teacher] tells us that now it's English only and we have to give all our answers in English. [Apart from that] we often reply in German. . . . In my opinion, the students should speak English more consistently when talking to the teacher. I think we should also do more role-plays, so we improve our spoken English. (PS14_LLEE_1)*

In line with the results from the quantitative analysis, this illustrates: (1) the variety in the implementation of primary school curricula and (2) the difficulty of establishing an increased use of the target language in primary school, perhaps also due to the mixed ability levels of the learners. Consequently, for Laura, one of the main changes that the transition involved was that more emphasis came to be placed on pronunciation. In her opinion, the teachers and consequently also the students speak more "authentic English" in secondary school. She had already indicated before the transition that she wished for her teacher to improve her own pronunciation and she reiterated at Time 2 that it was important to her to pay more attention to how words are pronounced from the beginning. Considering that young learners' alleged relative ease in acquiring the sounds of a FL is often cited as an argument for early FL programs (see Johnstone, 2009), these observations are highly relevant.

Overall, the two boys commented favorably on the topics that were explored in the English primary school classroom—particularly content and language integrated lessons—which seemed to influence their perception of EFL instruction to a great extent (Examples (17)-(18)). These remarks highlight the importance of intrinsically motivating content for a favorable learning experience for young learners.

- (17) *What I like about the English lessons is that we learn English and simultaneously also learn about a specific topic. (PS6_LLEE_1)*
- (18) *The topics are usually fascinating and I learn new things. I don't like it that much if I don't find the topic interesting. Then [English] is sometimes a bit boring. (PS1_LLEE_1)*

In learners' hindsight, aspects of primary instruction that were perceived as most helpful for a smooth transition by the three learners were acquiring a basic grammatical knowledge (Tobias and Laura), accumulating useful vocabulary (Laura and Noah), developing pronunciation skills (Tobias) and certain activities that provided extensive input, such as watching films (Noah). With respect to the transition, Tobias also commented on macro-variation on primary school level and micro-variation on secondary school level:

- (19) *What I learned about pronunciation is also useful now, when I compare myself to some of my peers from other primary schools who don't even know how to pronounce "but". Our primary school teacher was good in this regard. . . . I didn't have any difficulties in the transition, as we are now repeating the contents from grades 5 and 6. For some students this is new, but for me it's repetition and consolidation. (SS1_LLEE_2)*

6. Discussion and conclusion

Several observations in the quantitative and qualitative parts of this study have highlighted problems of articulation between levels in the educational system that might be problematic for the progression of English instruction in secondary school. Most importantly, the quantitative analysis has revealed that there does not seem to be a *general* problem with the transition from a rather more communicative and holistic approach at primary level to more formal ways of FL learning at the secondary one, as has been suggested before in the literature (see the review above). Rather, there are specific problem areas, notably the use of implicit input activities (e.g., singing songs and playing), which creates the impression among learners that a new start in a secondary school involves the risk of leaving behind what students learned in primary school. Muñoz et al. (2015) caution that if students are not made aware of their implicit knowledge in primary school, then they perceive that what they have learned until transition has not prepared them for the "new" classroom activities. This results in some learners (but not all of them!) undervaluing what L2 knowledge they brought with them. Muñoz and colleagues reason that the lack of recognition on the students' part of what they have learned in primary school may lead them to perceive EFL in secondary school as a new start, just as their teachers do.

Another noteworthy result in both the quantitative and the qualitative analyses was the repetitive nature of EFL in secondary school. At first glance, the students' responses raise the question as to whether the skills that are acquired at primary school are adequately accredited at secondary school. As mentioned above, many authors (see e.g., Muñoz et al., 2015) have previously suggested that repeating content and activities may have implications for learners' sense of progress. Ushioda (2014, p. 135) points out that social-environmental conditions that

undermine learners' sense of competence will generate forms of motivation that are less internalized, less integrated into the self or aligned with its values, and more externally regulated by environmental influences, pressures and controls. In the words of Jones (2016, p. 83), "it is a huge disappointment for learners to be told that their previous learning counts for nothing, a bit like losing a suitcase or other valued item on a journey that becomes lost forever."

Compared to these previous observations, our study painted a more complex picture, suggesting that there are also a good number of learners who report similarly high levels of enjoyment for English at the start of secondary school than at the end of primary, particularly *owing to* repeated content in secondary and a clear disjuncture from primary. This is in line with previous work in England by Courtney et al. (2015), who found that their learners of French did not object to covering familiar content when they reached the first year of secondary school, as it enhanced their sense of making progress by consolidating their knowledge and skills.

Graham et al. (2016), in a similar context, found that total motivation scores increased at significant levels across the immediate point of transition, and by the end of Year 7 (first year of secondary), levels were still significantly higher than in Year 6 (last year of primary). In the qualitative analysis of the 100 learner essays in our study there was also a strong sense of the relevance of this discrepancy to the entire class—a finding which is reminiscent of Lamb's (2007) study, in which learners of EFL grew increasingly more focused on, and critical of, the classroom experience over the first 20 months of English learning at junior high school in Indonesia.

Besides individual variation, school and class diversity also played a significant role, particularly in our primary school data. While differences in sampling at the group level may be responsible for this phenomenon, as mentioned above, it is a well-known problem that the level of primary school groups can be very heterogeneous. When the primary school students enter secondary school, they frequently do not share the same level of competence, which leads to so-called "mixed ability classes." This can lead to frustration and boredom on the part of the higher-proficiency learners and to feelings of being overwhelmed and overtaxed in lower-proficiency students. Pfenninger and Singleton (2017) discussed in detail how the fact that secondary education becomes a meeting point for mixed ability classes also seems to strongly mitigate the potential advantages of an earlier start in terms of progress made in the target language. Thus, the phenomenon of experiencing difficulty with the move into secondary school may arguably arise from the variability in the amount and quality of FL teaching learners experience at primary school which then leads to some secondary schools feeling obliged to start language instruction from scratch with all learners, regardless of what they have learnt previously.

The following lessons can be learned from our findings and observations:

1. The problems surrounding the early teaching and learning of FLs are not only concerned with questions of maturation (e.g., are young children cognitively able to learn a FL in a formal, instructional setting?) or intensity of instruction (e.g., are 1-2 hours of FL instruction per week enough?) but with broader macro-institutional factors that hamper or render impossible the goal of offering several years of continued FL instruction.
2. The transition from FL learning in primary to FL learning in secondary has to be given more attention as a major factor in students' levels of attainment.
3. We need to establish effective and appropriate liaison between schools including transfer of information.
4. Students must feel that the work they are doing in primary school is appropriate to their needs.

The use of self-reported language learning beliefs as the unique measure of language ability can be viewed as a methodological limitation of the study, as there might be discrepancies in students' self-reports and teachers' actual practices. Another delimitation of the study is focusing only on an analysis of learners' perceptions, and only at two times (at the end of primary and the beginning of secondary school). The transition process is complex and dynamic, changes occur across many interconnected dimensions of learners' situations, and experiences are certainly marked by other objective or subjective changes. In a next step it would be vital to explore primary and secondary school teachers' attitudes towards early FL instruction. In addition to individual and contextual factors, another important force in educational innovations such as early FL programs is the teachers themselves. As we have discussed in this paper, a potential mismatch of student-teacher expectations regarding FL teaching methods used in class may cause a decrease in motivation, for example, when students do not receive input that addresses their L2 proficiency level (Graham et al., 2016). It seems to be particularly important that secondary school teachers are thorough in assessing initial language skills that students in their class have already attained. This calls for research on teachers' beliefs about, and attitudes to, the early instruction of FLs.

References

- Barton, A., & Bragg, J. (2010). *Springboard to languages project: Phase 3 report*. University of Manchester.
- Bates, D., Maechler, M., Bolker, B., & Walker, S. (2016). lme4: Linear mixed-effects models using Eigen and S4. R package version 1.0-6. Retrieved from <http://CRAN.R-project.org/package=lme4>
- Blondin, C., Candelier, M., Edelenbos, P., Johnstone, R., Kubanek-German, A., & Taeschner, T. (1998). *Foreign languages in primary and pre-school education: A review of recent research within the European Union*. London: CILT.
- Börner, O., Engel, G., & Groot-Wilken, B. (Eds.). (2013). *Hörverstehen – Leseverstehen – Sprechen. Diagnose und Förderung von sprachlichen Kompetenzen im Englischunterricht der Primarstufe*. Münster, Germany: Waxmann.
- Chambers, G. N. (2014). Transition in modern languages from primary to secondary school: The challenge of change. *Language Learning Journal*, 42(3), 242-260.
- Chaudron, C. (2001). Progress in language classroom research: Evidence from *Modern Language Journal*, 1916-2000. *Modern Language Journal*, 85, 57-76.
- Corbin, J., & Strauss, A. (2007). *Basics of qualitative research: Techniques and procedures for developing Grounded Theory* (3rd ed.). Thousand Oaks: Sage.
- Courtney, L. (2014). *Moving from primary to secondary education: An investigation into the effect of primary to secondary transition on motivation for language learning and foreign language proficiency* (Unpublished PhD thesis). University of Southampton.
- Courtney, L., Graham, S., Tonkyn, A., & Marinis, T. (2015). Individual differences in early language learning: A study of English learners of French. *Applied Linguistics*. doi: 10.1093/applin/amv071
- Dörnyei, Z. (2009). *The psychology of second language acquisition*. Oxford: Oxford University Press.
- Dörnyei, Z. (2010). *Questionnaires in second language research. Construction, administration, and processing* (2nd ed.). London: Routledge.
- EDK-Ost (Erziehungsdirektoren-Konferenz Ostschweiz). (2009). Lehrplan Englisch. Primarstufe und Sekundarstufe I. Retrieved from http://www.vsa.zh.ch/content/dam/bildungsdirektion/vsa/schulbetrieb/lehrplaene_lehrmittel/lehrplan_englisch.pdf
- Ellis, N. C. (Ed.). (1994). *Implicit and explicit learning of languages*. London: Academic Press.
- Ellis, N. C. (2009). Optimizing the input: Frequency and sampling in usage-based and form-focussed learning. In M. H. Long & C. Doughty (Eds.), *Handbook of language teaching* (pp. 139-158). Oxford: Blackwell.

- Ellis, R., & Barkhuizen, G. (2005). *Analyzing learner language*. Oxford: Oxford University Press.
- European Commission. (2004). *Promoting language learning and linguistic diversity: An action plan 2004-2006*. Luxembourg: Office for Official Publications of the European Communities.
- García Mayo, M. P. (2003). Age, length of exposure and grammaticality judgements in the acquisition of English as a Foreign Language. In M. P. García Mayo & M. L. García Lecumberri (Eds.), *Age and the acquisition of English as a foreign language* (pp. 94-114). Clevedon: Multilingual Matters.
- Gass, S. M., & Selinker, L. (2008). *Second language acquisition: An introductory course* (3rd ed.). New York, Routledge.
- Graham, S., Courtney, L., Tonkyn, A., & Marinis, T. (2016). Motivational trajectories for early language learning across the primary-secondary school transition. *British Educational Research Journal*, 42(4), 682-702.
- Gregersen, T., & MacIntyre, P. (2014). Emotions that facilitate language learning: The positive-broadening power of the imagination. *Studies in Second Language Learning and Teaching*, 2(2), 193-213.
- Housen, A., & Pierrard, M. (2005). Investigating instructed second language acquisition. In A. Housen & M. Pierrard (Eds.), *Studies on Language Acquisition: Vol. 25. Investigations in instructed second language acquisition* (pp. 1-27). Berlin, New York: Mouton de Gruyter.
- Jaekel, N., Schurig, M., Merle, F., & Ritter, M. (2017). From early starters to late finishers? A longitudinal study of early foreign language learning in school. *Language Learning*, 67, 631-664.
- Johnstone, R. (2009). An early start: What are the key conditions for generalized success? In J. Enever, J. Moon, & U. Raman (Eds.), *Young learner English language policy and implementation: International perspectives* (pp. 31-42). Reading: Garnet Education Publishing Ltd.
- Jones, J. (2016). Transition from primary to secondary language learning: Using an assessment for learning approach to unpack pupils' 'suitcases of skills and abilities.' *Babylonia*, 2, 79-83.
- Lamb, M. (2007). The impact of school on EFL learning motivation: An Indonesian case study, *TESOL Quarterly*, 41(4), 757-780.
- Larson-Hall, J. (2008). Weighing the benefits of studying a foreign language at a younger starting age in a minimal input situation. *Second Language Research*, 24, 35-63.
- Lichtman, K. (2013). Developmental comparisons of implicit and explicit language learning. *Language Acquisition*, 20(2), 93-108.
- Linck, J. A., & Cunnings, I. (2015). The utility and application of mixed-effects models in second language research. *Language Learning*, 65 (Supplement 1), 185-207.

- Milton, J., & Alexiou, T. (2006). Language aptitude development in young learners. In C. Abello-Contesse, R. Chacón-Beltrán, M. D. López-Chiménez, & M. M. Torreblanca-López (Eds.), *Age in L2 acquisition and teaching* (pp. 177-192). Oxford: Peter Lang.
- Mitchell, R., Myles, F., & Marsden, E. (2013). *Second language learning theories* (3rd ed.). New York/London: Routledge.
- Muñoz, C. (2009). Input and long-term effects of early learning in a formal setting. In M. Nikolov (Ed.), *Contextualizing the age factor: Issues in early foreign language learning* (pp. 141-160). Berlin: Mouton de Gruyter.
- Muñoz, C., Tragant E., & Camuñas M. (2015). Transition: Continuity or a fresh start? *APAC Quarterly*, 89, 11-16.
- Nikolov, M. (2017). Students' and teachers' feedback on diagnostic tests for young EFL learners: Implications for classrooms. In M. P. García-Mayo (Ed.), *Learning foreign languages in primary school: Research insights* (pp. 249-266). Bristol: Multilingual Matters.
- Nikolov, M., & Mihaljevic Djigunovic, J. (2011). All shades of every color: An overview of early teaching and learning of foreign languages. *Annual Review of Applied Linguistics*, 31, 95-119.
- Pfenninger, S. E., & Singleton, D. (2017). *Beyond age effects in instructional L2 learning: Revisiting the age factor*. Bristol: Multilingual Matters.
- Prabhu, N. S. (2009). Teaching English to young learners: The promise and the threat. In J. Enever, J. Moon, & U. Raman (Eds.), *Young learner English language policy and implementation: international perspectives* (pp. 43-44). Reading, UK: Garnet Education Publishing.
- R Development Core Team. (2016). *R: A language and environment for statistical computing*. Vienna: R Foundation for Statistical Computing.
- Schmidt, R. W. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3-32). Cambridge: Cambridge University Press.
- Tarone, E., Bigelow, M., & Hansen, K. (2009). *Literacy and second language oracy*. Oxford: Oxford University Press.
- Tellier, A., & Roehr-Brackin, K. (2017). Raising children's metalinguistic awareness to enhance classroom second language learning. In M. P. García-Mayo (Ed.), *Learning foreign languages in primary school: Research insights* (pp. 22-48). Bristol: Multilingual Matters.
- Ushioda, E. (2014). Motivational perspectives on the self in SLA: A developmental view. In S. Mercer & M. Williams (Eds.), *Multiple perspectives on the self in SLA. Second language acquisition* (pp. 127-141). Bristol: Multilingual Matters.