STUDENT TEACHER COGNITION: BELIEFS ABOUT FOREIGN LANGUAGE LEARNING AND TEACHING

COGNICIÓN DE LOS ESTUDIANTES DOCENTES: CREENCIAS SOBRE EL APRENDIZAJE Y LA ENSEÑANZA DE IDIOMAS

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Abstract
This study investigates Swedish student teachers' beliefs about seventeen commonly held views on language learning and language teaching. Their beliefs were surveyed by means of a questionnaire distributed before and after the students had taken part in their first English methodology course. The answers given to eleven of the statements are presented and discussed in this article. These statements were chosen for analysis because they are directly concerned with the teaching and learning of a second language (L2) in a classroom setting. The results show that many of the beliefs displayed by the participating student teachers go against the results of previous research within the field of second language acquisition (SLA), but also that some beliefs had started to change after the completion of the methodology course. In some cases, however, a more explicit focus would be needed in methodology courses for student teachers to be more capable in their future profession.
Keywords: pre-service teachers, second language acquisition, teacher beliefs, teacher education

Resumen
Este estudio investiga las creencias de los estudiantes suecos acerca de diecisiete puntos de vista comunes sobre el aprendizaje de idiomas y la enseñanza de idiomas. Sus creencias fueron encuestadas por medio de un cuestionario distribuido antes y después de que los estudiantes habían tomado parte en su primer curso de metodología en inglés. Las respuestas dadas a once de las afirmaciones son presentadas y discutidas en este artículo. Estas afirmaciones fueron elegidas para el análisis porque están directamente relacionadas con la enseñanza y el aprendizaje de una segunda lengua (L2) en un aula. Los resultados muestran que muchas de las creencias mostradas por los estudiantes participantes van en contra de los resultados de investigaciones anteriores en el campo de la adquisición de un segundo idioma (SLA), pero también muestran que algunas creencias comenzaron a cambiar después de completar el curso de metodología. En algunos casos, sin embargo, se necesitaría un enfoque más explícito en los cursos de metodología para que los estudiantes docentes estén mejor capacitados para su futura profesión.
Palabras clave: formación inicial docente, adquisición de un segundo idioma, creencias de maestros, educación de maestros

1. Introduction

There are many so-called 'folk beliefs' circulating on how to best learn and teach a foreign language. These beliefs are "propositions individuals consider to be true and which are often tacit, have a strong evaluative and affective component, provide a basis for action, and are resistant to change" (Borg

2011: 370–371), and they may or may not correspond to what research findings have shown. Much has happened within the field of second language acquisition (SLA) and teaching since the heydays of behaviourism in the 1950s when learning a language was considered no more than the formation of (good) habits, but how deep have research results penetrated people's minds? As the body of research on and knowledge of how languages are acquired grows it is interesting to compare scientific results and folk beliefs about this process to see whether misconceptions persist. In particular, teacher trainers benefit from knowing what views student teachers have when they embark on a teacher education programme and what impact, if any, methodology courses have on these views.

2. Literature review

This section is divided into two parts. The first provides an overview of the impact teacher cognition may have on SLA. The second summarises and discusses research on teacher cognition. Research on teacher cognition has long suffered from a plethora of different concepts being used to refer to the phenomenon studied, for example, *belief, cognition, conception, knowledge, perspective* and *schema* (Borg 2006). What all these concepts have in common, however, is that they are personal, practical, tacit, systematic and dynamic (ibid.: 35). Following Borg (2003), teacher cognition in this paper refers to "the unobservable cognitive dimension of teaching – what teachers know, believe, and think" (81).

2.1 Teacher cognition and SLA

Language teacher cognition was not really established as an area of research until the mid-1990s. Since then, however, it has been ever-expanding. In a review article, Borg (2003) identifies 64 studies published between 1976 and 2002, but in later work (Borg 2006) the review comprises 180 studies published until 2006. Conclusions from this research that are now generally accepted include that teachers' own experiences as learners influence their cognitions and what they learn during teacher education (Borg 2009a; Pajares 1992; Richardson 1996; Sato and Kleinsasser 1999; Tsui 2011). Since these cognitions generally are resistant to change, they may also impact on teachers' classroom behaviour (Borg 2009b; Voinea and Bota 2015). In one pioneering article, Horwitz (1988) maintains, for example, that if students believe that the memorisation of grammatical rules is all there is to language learning, that is also what they will focus on – in their own learning, but also when teaching others – at the expense of other aspects of language. In the same vein, Borg maintains that "ignoring preservice teachers' prior cognitions is likely to hinder their ability to internalize new material. This is particularly true when these prior understandings of teaching are inappropriate, unrealistic, or naïve" (2009a: 164). Therefore, charting students' (misconceived) beliefs about language learning and teaching early on in a teacher education programme is important if teacher trainers planning methodology courses are to know what aspects of SLA need some extra attention. As Brown and McGannon conclude,

> initial teacher training cannot possibly produce […] teachers who know all they need to know about classroom practice. As such, it is vital that student teachers are helped to adopt an approach to thinking about their teaching which will provide a basis for further development. (Brown and McGannon 1998: Student teachers as reflective practitioners, para. 4)

One way of helping student teachers adopt such a thinking is for teacher trainers to regularly highlight and include discussions on vital topics in their teaching "[t]o make learners aware of their own preconceived notions about language learning and their possible consequences" (Horwitz 1988: 292).

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Towell and Hawkins (1994) have compiled a list of some characteristics of SLA: transfer from the first language (L1) is inevitable, linguistic development is staged, growth is systematic across learners, learner language is variable and native-like competence is difficult to achieve. This list, Ellis (2009) emphasises, contains "the broad 'descriptive facts' of L2 [second language] acquisition" (136). In other words, this is knowledge that all language teachers should possess. However, studies have consistently shown that student teachers (and qualified teachers) entertain many misconceptions. This is further discussed in the next section.

2.2 Teacher cognition research

In their questionnaire study of student teacher cognition, Brown and McGannon (1998) conclude that there was a mismatch between their informants' views and results from SLA research as regards error correction, L1 interference and grammar teaching. Similarly, questionnaire results presented in Altan (2012) indicate that Turkish student teachers held opinions about pronunciation and error correction that could impact negatively on their future teaching practices. The risk of misguided beliefs impacting negatively on student teachers' classroom behaviour has also been voiced by Horwitz (1988), Peacock (2001) and Allen (2002). In a longitudinal questionnaire survey, Peacock (2001) reports that three years' of methodology courses had very little impact on student teacher cognition. Also the results from Wong (2010) indicate that student teachers' cognitions are stable over time. Peacock's (2001) conclusion is that the consistency of findings on student teachers' opinions about language learning and teaching, that is, the fixedness of the opinions, strongly emphasises the importance of research in this area. Leavy, McSorley and Boté (2007), using student teachers' metaphor constructions as a research tool, acknowledge, on the other hand, "the potential for teacher education courses to challenge and bring about change in preservice teachers [sic] beliefs" (1229). Other studies have shown that even though beliefs that student teachers bring with them are often slow to change (MacDonald, Badger and White 2001), they do in fact change. Borg (2011) finds clear evidence of in-service education, in this case an eight-week full-time Delta course, exerting a "considerable, if variable, impact on the beliefs of the teachers studied" (378). The findings are based on triangulated data from a test battery comprising questionnaires, interviews and course assignments. Likewise, Debreli (2012) reports a major change in student teachers' beliefs about teaching and learning English as a foreign language after a nine-month pre-service training program during which data was collected through interviews and a diary writing activity. This change, however, seemed to have arisen from the informants' experiences during practice-teaching sessions rather than through participation in any methodological course. In yet another questionnaire-based study, Voinea and Bota (2015) conclude that teachers' reflections on their identity, roles and responsibilities may lead to a change in beliefs and behaviour. In a similar vein, Mattheoudakis (2007) notes, based on participants' answers to questionnaires, that "student teachers seem to be going through a slow and gradual process of developing and modifying their beliefs, which, in many cases, leads to significant changes" (1281). She concludes that changes in cognition do not happen suddenly but is a cumulative process (1282), a conclusion also reached by Cabaroglu and Roberts (2000).

3. The present study

3.1 Rationale

As pointed out by Borg (2009a), research on (student) teacher cognition has so far mainly been carried out in the UK, the US, Australia and Hong Kong, very often with teachers who are native speakers of English working with adult learners. The present study is situated in the Swedish context, which, to

the present writer's knowledge, is as yet an unexplored area, the student teachers participating are all native speakers of Swedish and the majority will teach younger learners in the future. Hence, this study will contribute with new data and yet another piece in the global teacher-cognition puzzle.

In order to detect aspects of SLA in need of extra attention in methodology courses for English teachers-to-be, the aim of this paper is, thus, (i) to shed light on student teachers' beliefs on foreign-language learning and teaching, (ii) to show whether their cognition corresponds with findings from SLA research and (iii) to see whether there are signs of methodology courses having initiated a change in these beliefs.

3.2 Participants

Five different groups of student teachers, all of them from the same university, participated. The groups are presented in Table 1 below. Except for group 2, they were all first-year student teachers. No one, group 2 included, had any previous experience of language-teaching courses and had experienced teaching languages themselves only to a limited extent. Depending on what age group students are to teach in the future, the length of their teacher education varies: four years for students aiming for the ages up to twelve years and five for those aiming for older pupils. The first methodology course, during which data was gathered, comprises an introduction to SLA theories and research as well as a historical overview of different trends in language teaching in Sweden. Later courses are differentiated with respect to students' future age specialisation.

Group	Average age of participants	Future age group to teach	1st questionnaire $n = 54$	2nd questionnaire $n = 56$
1	24.0	6–9 years	14	12
2	26.3	7–12 years	18	18
3	22.1	10–12 years	7	4
4[1]	22.6	16–18 years	9	7
5	25.7	16–18 years	6	6
6	--	7–15 years	--	9

Table 1. Presentation of participants.

The first questionnaire was distributed on the first day of the methodology course and the second, identical one on the last day. Not all students were present on both occasions and, therefore, the number of participants differs for some of the groups. The opportunity also arose to ask some qualified teachers about their beliefs. In Table 1 above, they are presented as group 6. On average, they had ten years' experience of teaching English. The majority of them had not taken part in any language-

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[1] The first questionnaire from group 4 formed the basis of a pilot study. The results are presented in Nordlund (2013).

teaching courses since having finished their teacher education or had never done so because it was not required at the time.

3.3 Data collection and analysis

To gather data, a questionnaire comprising 17 statements about language learning and teaching (Lightbown and Spada 2006: xvii–xviii) was used. The participants had to consider these indicating on a six-graded Likert-type scale whether they *strongly agreed* (1) or *strongly disagreed* (6). An even number of grades on the scale was chosen to force the participants to position themselves on either of the two sides. The participants were also given the opportunity to comment on their standpoint.[2] The questionnaire was handed out at the beginning and at the end (two months later) of the participants' first English methodology course. The data gathered were analysed using a SPSS Paired Samples Test Sig. (2-tailed). This test is used to compare the mean scores of the same participants at two points in time (Perry 2011). Statistical significance was set at $p < 0.05$.

4. Results and discussion

The answers to eleven of the statements are presented and discussed below. These statements are directly concerned with the teaching and acquisition of an L2 in a classroom setting. Although discussed in the classroom with the students as a way of making them reflect on their general beliefs about language acquisition and teaching, six statements were excluded from discussion in the present article because they either concern L1 acquisition, language learning in general or deal with the structure and organisation of language learning on a national and/or school level and thus lie outside the scope of this article. The statements analysed were gathered into two categories: learner-focused and teacher-focused statements. Because results from the first questionnaire indicated similar response patterns for all groups neither the results from the first nor the second questionnaire were analysed separately for individual groups. Since the beliefs of qualified teachers often differ quite substantially from those maintained by student teachers, their views are presented separately. Not all participants answered all statements. Therefore, the number of received answers in Tables 2–3 below does not always equal the number of participants presented in Table 1 above.

4.1 Learner-focused statements

The results from the statistical analysis are presented in Table 2. Because qualified teachers only filled out the questionnaire once, no statistical analyses were carried out on their results.

	1st questionnaire		2nd questionnaire		*p*	Qualif. teachers	
6. Most of the mistakes that second language learners make are due to interference from their first language.	*n* = 49	3.00	*n* = 47	3.49	0.018[a]	*n* = 6	2.67
7. The best way to learn new vocabulary is through reading.	*n* = 53	2.74	*n* = 46	3.07	0.049[a]	*n* = 9	4.00

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[2] Because few participants took advantage of this opportunity, no qualitative analysis of the comments was carried out. Where comments made might shed some more light on the results, however, they are added to the discussion.

8. It is essential for learners to be able to pronounce all the individual sounds in the second language.	*n* = 51	3.41	*n* = 47	4.23	0.002[b]	*n* = 9	3.44
9. Once learners know roughly 1,000 words and the basic structure of a language, they can easily participate in conversations with native speakers.	*n* = 51	3.25	*n* = 44	3.50	0.051[c]	*n* = 8	2.75
14. When learners are allowed to interact freely (e.g., in group or pair activities), they copy each other's mistakes.	*n* = 49	4.39	*n* = 46	4.52	0.346[c]	*n* = 9	4.78
15. Students learn what they are taught.	*n* = 51	3.53	*n* = 46	4.13	0.014[a]	*n* = 9	4.56

[a] A significant difference, $p < 0.05$

[b] A very significant difference, $p < 0.01$

[c] No significant difference, $p > 0.05$

Table 2. Beliefs about learner-focused statements. The higher the number the more the disagreement.

In what follows, the participants' answers to the statements are discussed in relation to findings from SLA research.

Statement 6: Most of the mistakes that second language learners make are due to interference from their first language. Even though there has been a change in student teachers' beliefs (a very significant difference, $p=0.018$), the majority still agrees with this statement, a finding which mirrors other results (Brown and McGannon 1998; MacDonald et al. 2001). This is somewhat disturbing since it might influence their future teaching. L1 influence is inevitable (Towell and Hawkins 1994) and an L2 learner's L1 is a major source to mistakes made (Lightbown and Spada 2013), but it is not the source of most mistakes. There are other influences as well, which a few of the students also correctly commented. Many errors can, for example, be better explained in terms of learners' developing knowledge of the structure of the L2. Moreover, L2 learners of English speaking different L1s often make the same mistakes (Brown 2014), mistakes that, interestingly enough, often mirror those made by children learning English as their L1 (ibid.). More worrying than the student teachers' somewhat misguided beliefs, however, is that the qualified teachers showed such a lack of insight as regards this issue (mean value 2.67). Knowledge of learners' developmental errors and interlanguage is necessary for any language teacher in order to detect 'real' errors such as learners' avoidance of certain linguistic features or fossilised language structures. Furthermore, knowledge of other languages often contributes in a positive way to the acquisition of yet another language, in particular if the languages are closely related and the L1 should be seen as a resource to be used for supporting learners' L2 acquisition (Gunnarsson, Housen, van de Weijer and Källkvist 2015). More discussions with students but also more in-service training for teachers thus seem to be needed on what kind of influence – negative or positive – a learner's L1 exerts and what other possible sources of mistakes there are to consider in the language classroom.

Statement 7: The best way to learn new vocabulary is through reading. This statement was embraced rather positively by the students (mean values 2.74/3.07), whereas teachers tended to disagree more (mean value 4.00), and when it comes to L1 acquisition, reading is a major source of vocabulary growth, especially during a child's school years (Lightbown and Spada 2013; Webb and Nation 2017); research thus seems to confirm the students' beliefs. On the other hand, although L2 learners'

vocabularies also grow the more they read (Suk 2016), quite large quantities of reading is required for them to benefit the most from reading (Brown, Waring and Donkaewbua 2008). Nation and Wang (1999) have shown that one graded reader[3] per week is the minimum if L2 learners are to encounter new words frequently enough for learning to occur. Similarly, Horst (2005) concludes that more than two books each term is necessary for substantial vocabulary growth to take place. This amount of reading is, however, an exception rather than the rule, as emphasised by Grabe and Stoller who maintain that "[m]ost L2 readers are simply not exposed to enough L2 print (through reading) to develop fluent processing. [---] nor do they have enough exposure to build a large recognition vocabulary" (2002: 47).

Student teachers are positively tuned towards using fiction in their teaching and emphasise how important fiction is as a motivational factor in language learning, but the few comments made did not mention how this would actually be carried out in schools. Without being aware of the necessity of extensive reading in order to develop a sizeable vocabulary teachers might be disappointed in the outcome if learners only read, for example, one book per semester and, therefore, abandon all reading activities. Not many of the qualified teachers commented this statement, but there were a few remarks about the benefit of speaking as a way of learning new vocabulary. They thus seem to favour oral activities and, in general, do not seem to be particularly positive towards reading at all. Results from a Norwegian study (Charboneau 2012) point in the same direction: the reading of other texts than those provided by the textbook is of infrequent occurrence in classrooms.

Statement 8: It is essential for learners to be able to pronounce all the individual sounds in the second language. Qualified teachers' and students' answers to the first questionnaire (mean values 3.44/3.41) tended to be more positive towards this statement as compared to students' answers to the second questionnaire (mean value 4.23; a very significant difference, p=0.002). Overall, though, the aspect most commented was the ability to make oneself understood: pronunciation is not important as long as it does not affect comprehensibility negatively. This is a view contradicting Wong's (2010) and Altan's (2012) findings where 88% and 70% of the participants, respectively, believed that excellent pronunciation was important. There is some research (Derwing and Rossiter 2003; Hahn 2004) supporting the view expressed here, pointing out that emphasising and explicitly teaching suprasegmentals, that is, rhythm, stress, intonation, etc., is more important than focusing on the exact pronunciation of individual sounds, but, as mentioned in one comment to the second questionnaire, it also depends on what level of linguistic proficiency is aimed for. Wong's (2010) and Altan's (2012) informants, for example, might have had the native speaker as their model. As shown by Derwing and Rossiter (2003), the explicit teaching of prosody improves how native speakers rate learners as regards both comprehensibility and fluency. Comments made indicate that the students have not considered the importance of suprasegmentals to the overall pronunciation pattern of a language and how they influence comprehensibility. It is thus important to open (student) teachers' eyes in this respect and make them aware of the fact that the ability of simply making oneself understood is too low an aim. That strategy might result in fossilised pronunciation (errors) without any focus on larger units of language.

Statement 9: Once learners know roughly 1,000 words and the basic structure of a language, they can easily participate in conversations with native speakers. Students and qualified teachers alike are positively biased towards this statement (mean values 3.25/3.50/2.75), but comments to the second questionnaire include hedges such as "not easily", "only very simple conversations", "other means

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[3] "Graded readers are books which are specifically written or adapted for second language learners" (Nation and Wang 1999: 356).

needed as well". This statement is dependent on many factors, one being what words are included among the 1,000, especially since estimates indicate that everyday conversations actually require between 2,000 (Adolphs and Schmitt 2003; McCarthy and Carter 2003) and 3,000 words (Schmitt and Schmitt 2014). Nation (2014) even claims that to understand 98% of "a friendly informal conversation" (9) knowledge of 6,000 words is needed. But developing a basic vocabulary and knowledge of the basic structures of the L2 is not enough. Another aspect of vocabulary knowledge that (student) teachers are unlikely to have reflected on is pragmatics, for example, what words and phrases to use to make a request or apologise, that is, the need to develop interlanguage pragmatics (Bardovi-Harlig 1999). Pragmatic expressions are generally best learned as chunks and not as individual words put together (Boers, Deconinck and Lindstromberg 2010; Kasper and Rose 2002) and teachers and students alike should be made aware of this.

Discussions on a possible core vocabulary – what words should be explicitly taught in the language classroom – could also be a fruitful activity in methodology classes or during in-service training to raise students' and teachers' awareness of how writers of textbooks choose and organise vocabulary. To help learners as much as possible, teachers should teach the 'right' vocabulary and be critical when they choose teaching materials and exercises. They need to consider what the purpose is of learning certain words, whether they are even appropriate for a specific age level or whether other words should be focused instead, words that might be more useful in a longer perspective (Nordlund 2015a, b, 2016).

Statement 14: When learners are allowed to interact freely (e.g., in group or pair activities), they copy each other's mistakes. In MacDonald et al.'s (2001) study, participants generally agreed with this statement whereas overall results here show disagreement (mean values 4.39/4.52/4.78) thus replicating the findings of Brown and McGannon (1998), a standpoint that is also supported by research. Long and Porter (1985), for example, did not find any enhanced error production between interlocutors at the same level, but, on the other hand, interlocutors at the same level are also less likely to be helpful in correcting mistakes made. Different constellations can be envisaged, however; Storch (2002) found that the combination of an "expert" and a "novice" resulted in language improvement for both participants (see also Long 1983, 1996). Furthermore, group and pair activities generally provide more opportunities for learner production, a necessary condition for linguistic proficiency to develop (Swain 2000).

Statement 15: Students learn what they are taught. As all teachers know, this statement is seldom correct, at least not right away. This pragmatic approach is evidenced to some degree in student responses (mean values 3.53/4.13; similar results were also obtained by Brown and McGannon (1998) and MacDonald et al. (2001)), but even more so among the qualified teachers (mean value 4.56). The fact that teacher-provided input almost never is the same as learner intake may have many causes, but important to consider is Pienemann's (1998, 2015) work on processability and teachability. For teachers, it is therefore vital to know the language level(s) in their class. In their comments, some students related the lack of learning to the individual learner's (lack of) motivation and interest whereas others decided on the easy option to blame bad teaching for any lack of learning. Many also mentioned that much of what students know they have learned outside of school during spare-time activities performed in the L2. Even though it is not explicitly expressed, the students seem to make a distinction between learning, which is related to the classroom situation, and acquisition, which happens when they are engaged in things they enjoy (cf. Krashen 1981). That spare-time activities in the L2 are important for language development is also corroborated by Sundqvist's (2009, 2016; Sundqvist and Sylvén 2016) studies on Swedish students' extramural English activities and their

impact on oral proficiency and vocabulary growth. What L2 activities students engage in outside of school is thus essential for teachers to consider and incorporate in their teaching.

4.2 Teacher-focused statements

The results from the statistical analysis are presented in Table 3. Because qualified teachers only filled out the questionnaire once, no statistical analyses were carried out on these results.

	1st questionnaire		2nd questionnaire		p	Qualif. teachers	
10. Teachers should present grammatical rules one at a time, and learners should practice examples of each one before going on to another.	$n = 54$	3.11	$n = 44$	3.86	0.002[a]	$n = 9$	2.89
11. Teachers should teach simple language structures before complex ones.	$n = 54$	2.44	$n = 45$	2.62	0.335[b]	$n = 9$	2.11
12. Learners' errors should be corrected as soon as they are made in order to prevent the formation of bad habits.	$n = 51$	2.96	$n = 47$	3.68	0.004[a]	$n = 9$	3.89
13. Teachers should use materials that expose students to only those language structures they have already been taught.	$n = 52$	4.33	$n = 45$	4.89	0.001[a]	$n = 9$	5.11
16. Teachers should respond to students' errors by correctly rephrasing what they have said rather than by explicitly pointing out the error.	$n = 53$	2.49	$n = 44$	2.34	0.860[b]	$n = 9$	1.78

[a] A very significant difference, $p < 0.01$

[b] No significant difference, $p > 0.05$

Table 3. Beliefs about teacher-focused statements. The higher the number the more the disagreement.

In what follows, the participants' answers to the different statements are discussed in relation to findings from SLA research. Because of the close affinity between them, statements 10 and 11 will be discussed together as will statements 12 and 16.

Statement 10: Teachers should present grammatical rules one at a time, and learners should practise examples of each one before going on to another. and *Statement 11: Teachers should teach simple language structures before complex ones.* Students were in favour (mean values 3.11/3.86 – 2.44/2.62) of the statements (see Brown and McGannon (1998) and MacDonald et al. (2001) for similar results), but there has been a very significant change (p=0.002) as regards statement 10, thus conforming more to research that emphasises overlapping stages in language learning (Mitchell and Myles 2013). The opinions of qualified teachers (mean values 2.89/2.11) are noteworthy since they go against what research says about language not being acquired in a strictly linear way (Keck and Kim 2014).

Admittedly, many grammatical features seem to be acquired in a hierarchical and sequential fashion (Pienemann 1998, 2015), but, on the other hand, learners often display more than one stage of a certain developmental sequence in spontaneous language use (Ellis 1985). Also, when new grammatical rules are introduced, more often than not there is a decrease in the correct use of rules already encountered (ibid.). So, rather than looking at L2 development as a straight line it is more useful to see it as a two-steps-forward-one-step-back movement in which the learner's interlanguage is adjusted as new rules are assimilated and automatized. Comments to the second questionnaire mention that rules sometimes "go together" and that some learners might benefit from getting "the whole picture" instead of piecemeal information. Such comments indicate a heightened awareness of different learning styles and the fact that a holistic perspective can sometimes be more beneficial. Other comments mostly reflect a very rigid and engrained attitude among student teachers. They display a vague notion that 'the basics' is important to learn first before going on to more difficult things, but what this 'basics' comprises is not explicitly defined, nor do students seem to reflect on what constitutes simple and complex language structures. An aspect to consider here is the frequency of structures, that is, how often learners come into contact with a particular grammatical structure. Regardless of complexity, structures that are very frequent in the linguistic input are likely to be learned with more ease than structures occurring less frequently. Furthermore, comments seem to indicate that student teachers adhere completely to the opinion that language develops in a linear and straightforward way. Adding to their knowledge of the non-linearity of language acquisition is thus an essential task for teacher trainers (Ellis 2009) and since qualified teachers are even more adamant in their support of these two statements, this is also a matter for in-service training.

Statement 12: Learners' errors should be corrected as soon as they are made in order to prevent the formation of bad habits. and *Statement 16: Teachers should respond to students' errors by correctly rephrasing what they have said rather than by explicitly pointing out the error.* These statements address a central feature of language teaching: the when and how of correction. Research is ambivalent towards this matter. Be it L1 or L2 acquisition, errors are a natural and frequently occurring part of language acquisition. Learners commonly try out hypotheses about language and language use and sometimes they get it wrong. This, however, is not evidence that the formation of a bad habit is on its way. It really depends on what kinds of error are made. A learner's interlanguage changes constantly over time (Towell and Hawkins 1994) and it is not unusual that correct and ungrammatical forms are mixed in learners' linguistic production. Moreover, constant error correction could deter some learners from speaking the L2 at all. Especially statement 12 echoes claims of the behaviourist approach to language learning, which was seen as the formation of habits (Skinner 1957) and comments to the first questionnaire (mean value 2.96) present quite a simplistic view of the nature of errors in language production: errors must be nipped in their bud since bad habits are quickly formed but difficult to change. In Altan's (2012) study, 40% of the participants expressed similar opinions. This shows a lack of insight into the particular role errors play in language development. In addition, none of the comments in the present study mentioned different forms of correction. Rather, student answers to the first questionnaire seemed to indicate that students had not reflected on whether there was more than one way to provide learners with corrective feedback. Hence, it is encouraging to see that both student answers to the second questionnaire (mean value 3.68; a very significant change, *p*=0.004) and qualified teachers (mean value 3.89) display a more nuanced attitude towards this issue and show evidence of an awareness of the complexity of error correction. MacDonald et al. (2001) report similar changes in beliefs whereas Brown and McGannon's (1998) informants rejected the statement already in the first questionnaire. Worth noting is, however, that although students, when filling out the first questionnaire, may not have been consciously aware of different ways of correcting errors, they were able to judge the appropriateness of one method over the other when explicitly asked, as shown by the results for statement 16 in which most participants positioned themselves on the agreement side of the scale (mean values 2.49/2.34/1.78). What type of error correction to use is an important aspect to consider – explicit correction or more implicit forms such as recasts – but results on what type of feedback is to be preferred are inconclusive (Nicholas, Lightbown and Spada 2001).

Many factors influence how learners receive and interpret corrective feedback, for example, what part of language is corrected (phonology, grammar, etc.), but also the learner's age and motivation. All things considered, if an error is frequent and persistently made in a larger group of learners, the teacher needs to address the problem in order to avoid fossilisation of language.

Statement 13: Teachers should use materials that expose students to only those language structures they have already been taught. If learners are to develop a rich and varied L2 they need varied input. Exposing them to somewhat impoverished language can thus not be considered beneficial to language development (Thornbury 1999). This applies to both grammar and vocabulary: all too familiar and easy input will not lead to enhanced learning. Rather, it will most likely result in demotivated learners. Students in this study also tend to disagree with this statement (mean values 4.33/4.89), as do the teachers (mean value 5.11). Also Brown and McGannon's (1998) and MacDonald et al.'s (2001) informants responded in the same way. Still, working with old material is not wholly bad. Sometimes, teaching materials, for example, might proceed to quickly, not giving enough time for consolidating new grammatical structures or vocabulary, but both linguistic accuracy and fluency – the latter in particular – benefit from exercises and activities which contain only structures already known (Nation 2007, 2008).

5. Limitations

This study has a few limitations that should be addressed. Firstly, a questionnaire is a somewhat blunt instrument and some of the statements in the questionnaire used are quite complex. Because of that, it could be argued that the participants' beliefs can only be assessed in a superficial way. However, the statements reflect opinions commonly held by laypeople and so can provide useful insights of beginner student teacher cognition. This questionnaire has previously been used in other studies investigating changes in belief over time (e.g., Brown and McGannon 1998; MacDonald et al. 2001), in particular in studies looking at changes in student teachers' beliefs (Borg 2006). It is thus possible to make comparisons between the findings of the present and previous studies. Secondly, the groups participating in the study are small and because of this the generalizability of the findings could be questioned. The response patterns displayed are quite consistent between groups, however, and it should therefore be possible to draw some tentative conclusions based on the material. Thirdly, what changes are possible to detect after just one two-month course? As shown in previous studies (e.g., MacDonald et al. 2001; Peacock 2001) changes are slow, but signs that changes might be on their way are nonetheless detectable. Finally, since the methodology course only lasted two months changes observed in the second questionnaire could be due to the freshness of new knowledge. A delayed third questionnaire would be necessary to show how deeply the changes have actually penetrated.

6. Conclusion

Should the fact that the student teachers participating in this study did not change all of their misconceptions about language learning and teaching be seen as a failure of the methodology course? I would like to argue that it should not. The results from the first and the second questionnaire differ significantly for many statements and the latter conform more closely to SLA research findings. Some issues would possibly have benefitted from an even more focused treatment during methodology classes in order to make students aware of how complex the undertaking of teaching, as well as learning, languages actually is, but learning takes time (and changing beliefs takes even longer) and students do not always learn what they are taught right away. I believe that the results from the second questionnaire at least hint to on-going development among the participating student teachers. These findings are also consistent with the results of previous research (Brown and McGannon 1998;

MacDonald et al. 2001). More alarming is the fact that qualified teachers embrace so many beliefs that go against research results. Only with the new teacher education in Sweden, which came into force in 2011, has English become an obligatory subject for student teachers aiming at younger pupils (7–12 years). Hence, teachers with a diploma from earlier education programmes might not have studied English since their own high school years. As a consequence, they have no formal training in how to teach a foreign language. This situation is, unfortunately, not unique for Sweden. Admittedly, the group of qualified teachers participating in this study was small and the results are therefore not generalizable, but I would still like to argue that there is an urgent need for proper in-service training among English teachers to further enhance the quality of teaching, thus facilitating their students' language acquisition.

To conclude, although the present study is small in scale it nonetheless shows the importance of charting student teachers' beliefs about language learning and teaching in order to detect and eliminate any misconceptions they display in the early stages of their education. If left unchallenged, these misconceptions may affect their classroom performance in an undesirable way.

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Appendix: Questionnaire

NB. For all statements, the scale was repeated as was the phrase *I think this because*. To save space, this is illustrated only for statement 1 below.

Indicate the extent to which you agree with each statement by highlighting (in bold, colour or any other way of your choosing) the appropriate number between *strongly agree* and *strongly disagree*. Justify your position. Please take any space needed for your justification.

1. Languages are learned mainly through imitation.

strongly agree   1   2   3   4   5   6   *strongly disagree*

I think this because:

2. Parents usually correct young children when they make grammatical errors.
3. Highly intelligent people are good language learners.
4. The most important predictor of success in second language acquisition is motivation.
5. The earlier a second language is introduced in school programmes, the greater the likelihood of success in learning.
6. Most of the mistakes that second language learners make are due to interference from their first language.
7. The best way to learn new vocabulary is through reading.
8. It is essential for learners to be able to pronounce all the individual sounds in the second language.
9. Once learners know roughly 1,000 words and the basic structure of a language, they can easily participate in conversations with native speakers.
10. Teachers should present grammatical rules one at a time, and learners should practise examples of each one before going on to another.
11. Teachers should teach simple language structures before complex ones.
12. Learners' errors should be corrected as soon as they are made in order to prevent the formation of bad habits.
13. Teachers should use materials that expose students to only those language structures they have already been taught.
14. When learners are allowed to interact freely (for example, in group or pair activities), they copy each other's mistakes.
15. Students learn what they are taught.
16. Teachers should respond to students' errors by correctly rephrasing what they have said rather than by explicitly pointing out the error.
17. Students can learn both language and academic content (for example, science and history) simultaneously in classes where the subject matter is taught in their second language.

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