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Anna Jarosz

University of Łódź, Poland, anna.jarosz@uni.lodz.pl

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INCIDENTAL DEVELOPMENT OF PRONUNCIATION LEARNING STRATEGIES

ANNA JAROSZ

University of Łódź, Poland

anna.jarosz@uni.lodz.pl

Abstract

The studies devoted to the so-called good language learners that emerged in the 1970s (Rubin 1975) reveal that efficient learners fall back on an abundant and highly individualised array of techniques and strategic behaviours related to and employed while learning. The well-known taxonomies by Oxford (1990) and O'Malley and Chamot (1990) gave rise to analyses and investigations in the field of learner autonomy and self-development, also in pronunciation learning/teaching. As has been corroborated by empirical studies (Oxford 2001a; Oxford 2001b; Chamot, 2004) strategy training contributes to the increase in overall proficiency as well as to a number of invaluable benefits such as enhanced motivation, greater self-efficacy, anxiety reduction and more positive attitudes. Although studies dedicated to the relationship between learning strategies and pronunciation are still in their infancy, there are a number of investigations that set the directions for further research and development (Peterson 2000; Pawlak 2008; Pawlak and Oxford 2018).

The paper presents results of a pilot study conducted in a secondary school that aimed at observing how learners develop pronunciation strategies as a result of regular pronunciation input and feedback from the teacher. It addresses a tentative assumption that explicit pronunciation training may contribute to the enhanced strategy use and consequently to better oral performance. Detecting and naming the strategies employed by the learners as well as selecting the most effective ones for more explicit application aided and boosted the learners' awareness and confidence, which was confirmed by data obtained from questionnaires and from participant observation.

Keywords: learner autonomy, pronunciation learning strategies, explicit pronunciation instruction, learner awareness, teaching intervention

1. Introduction

Learners use a number of learning strategies that are expected to enhance their L2 competence and help them accomplish their goals. Empirical studies by Oxford (2001, 2001a) and Chamot (2004) indicate a correlation between strategic training and overall proficiency of learners. "Success in acquiring TL and mastering it depends largely on the learners' active involvement in the process. They should be prepared to take responsibility for what and how they learn outside the classroom" (Jarosz 2019: 65). Good language learners (Rubin 1975) and good

pronunciation users (Szyszka 2015) rely on an abundant and highly individualised array of techniques and strategic behaviours associated with learning and applied during the learning process. Nonetheless, as Harmer (2001) stresses,

However good a teacher may be, students will never learn a language—or anything else—unless they aim to learn outside as well as during class time. This is because language is too complex and varied for there to be enough time for students to learn all they need to in a classroom (Harmer, 2001: 335).

When it comes to language skills, there have been investigations into the development of writing learning strategies (Manchón 2018), speaking learning strategies (Pawlak 2018) and listening learning strategies (Zeng and Goh 2018). However, so far little has been done to gain insight into the relationship between learning strategies and pronunciation (Pawlak 2006; Pawlak 2010; Pawlak and Szyszka 2018) even though learner autonomy and self-regulated development are perceived as crucial also in the field of pronunciation learning/teaching. From the practitioner's point of view, there is a considerable need for guiding learners towards achieving their own autonomy and for educating them in the pronunciation learning strategies (PLS). Some learners will employ a number of PLS quite unconsciously and they are capable of applying a wider range of PLS as their pronunciation awareness grows (Jarosz, 2019). More research seems to be particularly requisite and valuable in the EFL contexts, where pronunciation is often neglected and seldom becomes the focus of attention or of foreign language instruction and where the access to target-language speakers and spontaneous speech is limited. Since pronunciation instruction is scarce in EFL classrooms, it is unreasonable to expect any PLS training there. Therefore, what needs further exploration is whether and to what extent pronunciation awareness raised and developed as a result of pronunciation instruction affects the choice and use of PSL even in the absence of deliberate strategy training. The present study attempts to establish the link between pronunciation awareness raising and strategy self-development.

Adolescent EFL school learners are a target group that has rarely constituted the centre of scholars' attention due to a number of reasons such as, for example, limited access to those learners. To date, most studies concentrate on ESL contexts - mainly immigrants who learn English to be able to function in the target language countries, such as the USA or Canada (Derwing and Munro 2005; Derwing, Munro and Thomson 2007) or on EFL English department students in European contexts (Pawlak 2008; Waniek-Klimczak 1997; Waniek-Klimczak 2013; Waniek-Klimczak, Rojczyk and Porzuczek 2015). Huensch and Thompson (2017) observed the growing need for investigations into foreign language learners' practices and attitudes, whereas Sardegna, Lee and Kusey (2014, 2018) commented that relatively few studies have been devoted to adolescent school learners in the European EFL contexts and not much is known about EFL learners' attempts to enhance their pronunciation out of class. In view of the

above-mentioned, this study aims to enrich the research literature by investigating a group of secondary school learners learning English in the EFL context and the strategies they employ so as to improve their English pronunciation. Given that there is a growing need for oral communication due to world globalisation and that younger learners are generally perceived as better and more successful pronunciation learners than adults (Singleton and Ryan 2004), it seems reasonable to focus research on this particular target group.

2. Literature review

2.1 Pronunciation learning strategies

Early research related to PLS singled out certain PLS employed by learners by means of personal diaries (Peterson 2000) and structured interviews (Derwing and Rossiter 2002). A study that attempted to classify PLS and put forward a PLS taxonomy was conducted by Eckstein (2007). He found that learners who received higher scores in spontaneous speech used PLS more frequently than those who scored lower. Moreover, he identified which strategies were most frequently used by high-scoring learners (noticing mistakes, adjusting facial muscles and asking for pronunciation help) and which were more common among low-scoring learners (repetition, volume modification). Further research was represented by Pawlak (2010) who proposed a different PLS classification and Sardegna (2011, 2012) who indicated a significant pronunciation skills' improvement resulting from PLS intervention. Sardegna (2012) found that PLS combined with such variables as sense of self-efficacy, engagement in self-practice and progress considerably influenced learners' long-term improvement. Sardegna and MacGregor (2013) investigated how scaffolded pronunciation teaching enriched by PLS empowerment affected positively students' read-aloud accuracy as well as their own attempts to improve out-of-class pronunciation practice. Furthermore, they underlined the role of the teacher in providing the scaffolding and guidance, which help learners choose appropriate PLS strategies. Pawlak and Szyszka (2018) asserted that appropriate application of PLS contributes, on one hand, to awareness-raising and more effective pronunciation learning; and, on the other, to skilful employment of the knowledge in different learning tasks that could be not only guided and controlled but also communicative.

Sardagna, Lee and Kusey (2018) observed that learners' awareness of the linguistic and practical benefits as well as advantages of learning pronunciation contributes to conscious efforts and steps undertaken by them to improve it. "Increasing learners' self-efficacy through optimal challenges and feedback as well as addressing the values of learning pronunciation may be a viable approach to achieve pronunciation learning goals" (Sardagna, Lee and Kusey 2018). Students stimulated to learn pronunciation undertake further conscious action to improve it even more. Once encouraged how to do it, they seek their own ways to

further achieve their own goals. In the study devoted to the efficacy and feasibility of pronunciation instruction in state secondary schools, Jarosz (2019) made a tentative observation that both raising pronunciation self-awareness and pronunciation teaching may lead to unstructured and uninstructed self-development of PLS. By means of semi-structured interviews and participant observation throughout one school year, she discovered that students reported starting to employ various PLS in order to improve their pronunciation. The study, however, did not focus on the interplay between pronunciation gains and the changes in PLS use. In this light, it was interesting to investigate how regular pronunciation instruction affects the perception of self-observed progress and the dynamics and growth in the employment of PLS which were adopted to aid the progress. As Pawlak and Szyszka (2018) postulated there is an urgent need to gather data on strategy use regardless of the specific objectives of PLS studies. The instruments to reach this goal vary from Likert-scale questionnaires (Pawlak, 2010a), open-ended questionnaires (Pawlak 2018) to observations, self-reports and interviews (Peterson 2000).

2.2 The Polish Context

In Poland the choice of secondary school is not neighbourhood-based. Learners are free to choose any secondary school as long as they comply with the school requirements related to previous achievement. The national curriculum regulates teaching English in state institutions in Poland. It mainly sets semantic knowledge objectives, also language functions and grammatical structures, and completely neglects pronunciation objectives. In addition, course books accepted by the Ministry of Education for secondary education follow the curriculum strictly, so they do not provide much phonetic guidance or practice (Henderson and Jarosz 2014). Furthermore, although the oral exam that learners take upon graduation at the age of 18/19 claims to assess their communicative skills, two out of 30 points are assigned for 'correct' pronunciation and two for speech fluency. Also, pronunciation is usually assessed with regard to word-level accuracy, whereas fluency is assessed on the basis of the number of unnecessary pauses and the degree of hesitance during the speech. Thus, the national curriculum guidelines and the school-leaving exam criteria usually account for teachers' reluctance to focus on pronunciation during the coursework. Teachers frequently refer to time constraints and syllabi packed with grammar and lexical content which do not leave much room for any other additional pronunciation practice (Jarosz 2019).

Studies devoted to the Polish context point to English phonetic features such as aspiration, vowel length and quality, dental fricatives, the velar nasal, velarized /l/, vowel reduction in unstressed syllables, final devoicing (pre-fortis clipping), rhythm, linking and stress-timing as the major sources of difficulty for Poles in learning English (Porzuczek, Rojczyk and Arabski 2013; Rojczyk and Porzuczek 2012; Szpyra-Kozłowska et al. 2002; Szpyra-Kozłowska 2005; Szpyra-Kozłowska 2015; Wells 2005). Unquestionably, dental fricatives are believed to

be the most interesting sounds for Poles as they do not exist in the Polish sound inventory, but they are easily discernible even for an untrained ear. Since they are salient features of English phonetics and their mispronunciations are regarded as particularly irritating by native speakers (Scheuer 2003), they often attract a lot of attention of learners and teachers in Poland, even though their functional load (Catford 1987) is relatively low and they do not affect intelligibility.

The motivation for the study originated from comments made by Jarosz (2019) who, by means of long-term observation of a group of secondary school learners who were given extra pronunciation instruction in their natural school context, found that they developed certain PLS without being trained in the field. As was noticed by Pawlak (2006, 2008, 2011) pronunciation training contributes to developing learning autonomy and independence. Exposing learners to pronunciation instruction and aiding them in enhancing their self-efficacy leads to their conscious attempts to undertake certain strategic behaviours in order to improve pronunciation skills (Sardegna, Lee and Kusey 2018).

3. The Study

Following the findings in Jarosz (2019) and Sardegna, Lee and Kusey (2018), this study explores whether and to what extent addressing pronunciation features during an all-skill English course affects the behaviours of the participants and motivates them to employ certain strategies in order to improve their pronunciation. Furthermore, it was interesting to discover what kind of strategies were most popular among the participants. Consequently, the following research questions were posed to guide the study:

RQ1: In what way does regular pronunciation instruction contribute to learner awareness raising and emergence of pronunciation learning strategies?

RQ2: Which strategies developed in this way?

3.1 Participants and Context

Two groups of second-grade learners of a state secondary school (aged 17-18 years) were selected for the study. The school follows the standardized national curriculum and falls slightly above the average level of Polish secondary schools. Each group had four English lessons of the regular extended English programme a week and three other lessons of the basic programme with another teacher. The experimental group included 20 participants (9M, 11F), whereas in the control group there were 19 learners (7M, 12F). The difference between the two groups was that the experimental group received pronunciation instruction (see Teaching Intervention) and the control group did not. The choice of which group would be

experimental was random and it was not subject to any particular criteria since all the learners in both the groups represented varied levels of advancement from B1 to B2+ (according to the Common European Framework of Reference) and different interests. A background questionnaire elicited information about when they first started learning English, and whether they attended additional English classes in the afternoon at the time of the study. Based on students' self-reports, all started learning English at a young age (100 % of the control group in kindergarten; 90% of the experimental group in kindergarten and 10% at the age of 6/7). Also, at the time of the experiment, a third of the students in each group (7 in the experimental group, and 6 in the control group) attended extra out-of-class English lessons. Based on students' grades in English at the end of their first year in secondary school, both groups exhibited a range of language proficiency levels (see Table 1).

Table 1: *Learners' average grades in English at the end of the first year*

Average grade in English	Experimental group (n=)	Control group (n=)
Fail	0	0
Poor	5	3
Satisfactory	5	7
Good	7	6
Very good	3	2
Outstanding	0	1

3.2 Teaching Intervention

The teaching intervention took place in the secondary school in Poland. It was an action-research study that lasted five months and relied on approximately 5-minute pronunciation warmers during each lesson (the learners had four 45-minute-long hours of extended English each week). The number of lessons in that period amounted to seventy one, which means the participants had seventy one 5-minute warm-ups during that period. The warm-ups in the experimental group were pronunciation-related, whereas the warm-ups in the control group relied on lexical or grammatical content. The tasks selected for the experimental-group warm-ups varied in both the degree of explicitness and also the traditional-modern spectrum. Thus the participants were engaged in different activities such as explicit phonetic information, sound chart's analysis, articulatory settings observations, minimal pairs practice, sound discrimination and production, dialogues, jokes, tongue twisters, games or smartphone pronunciation applications. The selection of the techniques, tools and activities was based on literature dedicated to pronunciation teaching (Celce-Murcia et al., 2010; Kelly, 2000). The tasks and instructions were gradually introduced with the aid of metalanguage to familiarise the learners with more explicit explanation and to facilitate the process of discerning their needs and describing their own activities related to pronunciation practice in out-of-class situations. The choice of the content of the warmers relied heavily on the guidelines discussed in pronunciation

literature and therefore reflected Catford's functional load principle (1987) which was empirically verified by Munro and Derwing (2006), the necessity of setting attainable and realistic goals (Morley, 1994; Scheuer, 2015) and also the areas of difficulty for Polish learners resulting from the L1-L2 sound repertoire differences. Therefore, the warm-up tasks focused on: phonetic transcription, long and short vowels, schwa and trap /æ/, aspiration, pre-fortis clipping, final devoicing, dental fricatives, velar nasal and selected suprasegmental aspects of rhythm, word stress, weak forms, assimilation, linking and intonation.

3.3 Instruments and procedure

The case analysis triangulates data from different sources: PLS questionnaire; students' reflections during the course and teacher's field observations. In order to assess whether and what kind of strategies developed as a result of pronunciation instruction in the form of 5-minute warm-ups, a short questionnaire was constructed with open-ended and closed items, administered to the participants twice before and after the teaching intervention. It aimed to elicit from the learners what they thought and what they themselves did in order to improve their English and English pronunciation. The form of an open-ended questionnaire was meant to explore what the learners themselves were able to observe and how they reflected on their learning process without any particular suggestions or implications which might have guided them. This approach obviously has its limitations as the participants may not have mentioned a number of strategies due to insufficient metaknowledge and metalanguage. It seemed extremely important to administer the questionnaire before the pronunciation warm-ups started so as to examine which strategic behaviours they displayed before any intervention occurred. The same questionnaire applied after the experiment showed whether new reflections or comments occurred regarding any new strategies applied by the learners. The data analysis procedure relies on results presented in the form of common tendencies, response patterns and themes that emerged from the open-ended questions intending to indicate differences between the experimental group and the control group in the pre- and post-experiment questionnaire. The two last questions asked the participants to assess their speaking and pronunciation skills on a scale from excellent to poor). These two skills were treated separately in order to distinguish between speaking (i.e. managing the discourse, interaction with other speakers, ability to express thoughts and ideas) and pronunciation as such (i.e. accuracy and fluency of speech in terms of sound production and prosodic features).

Another instrument employed in the experiment was participant observation during the five months of pronunciation instruction warmers in the experimental group and of lexical/grammatical warmers in the control group. Any interesting comments or reflections from the participants were noted down, as well as actions that pointed to the participants' applying certain strategies in their learning

process. The participant field observation took place not only during the 5-minute warmers, but it was extended to all the lessons and also breaks when learners, for example, raised numerous questions that may have resulted from activities undertaken in out-of-class situations. The participants' comments, questions and reflections are summarised in the results' section.

4. Results and analysis

The field notes from participant observation together with the data collected from the questionnaires make it possible to address the research questions posed in the article about learner pronunciation awareness raising and the incidental PLS development originating from exposure to pronunciation instruction, devoid, however, of explicit strategy training. Both the groups displayed similar ideas and opinions in the pre-intervention questionnaire. Interesting differences, however, between experimental pre- and post- as well as between experimental post- and control post- emerged in the reports of the learners. The first general question about techniques used to learn English brought comparable results in both the groups. After the five months three more people in the experimental group mentioned that they listened to songs in English as a means of improving English. Two more started repeating new material out loud in order to memorise it better, and four more participants mentioned talking to themselves in English as a useful strategy to learn English. As ES7 (experimental group student) mentioned: *When I am on the bus, I try to think about some things and revise things to do in English.* Furthermore, ES11 reported: *It is fun talking to myself in English.* When it comes to watching films in original, the number of participants who mentioned it as a useful method of learning English in the experimental group increased from six to nine in the post-experiment questionnaire, there was no change in the control group. A question about the frequency of using English in out-of-class contexts brought only an increase in the experimental group, where four participants reported that they often used English whereas they did not mention using English at all in the pre-questionnaire.

The questions that referred strictly to speaking and pronunciation learning concerned preparing for oral assignments, factors crucial in speaking English, the significance of pronunciation in oral communication and attempts undertaken by the learners to improve their pronunciation. The control group did not exhibit any differences in the answers when the pre- and post-questionnaire results are considered. Compared in detail, the questionnaires seem repetitive and do not point to any strategic behaviour development or broader pronunciation awareness. However, new categories and themes emerged in the experimental group outcomes after the five months of limited but regular exposure to phonetic instruction. Prior to the teaching intervention, the experimental group participants (similarly to the control group) mentioned employing four strategies while

preparing for oral assignments: thinking about what to say, reading the material, talking out loud and writing down what to say. Three more strategies were reported to be used after the intervention, i.e. rehearsing in front of the mirror ($n=4$), speaking English with a friend ($n=4$) and practising pronunciation of difficult words ($n=3$). Here are a few comments from the learners:

I practised the pronunciation of some sounds in front of the mirror to see my face (ES7)

When we meet, we speak English together and have fun (ES3)

I often check the pronunciation of difficult words in online dictionaries and then repeat them (ES13).

The question about the most crucial factors in speaking English brought interesting comments implying changes in the perception of the speaking skill after the experiment. Five more experimental group learners ($n=12$) mentioned intelligibility (being understood by other speakers) as a crucial constituent of speaking, while ten more learners ($n=16$) indicated good pronunciation. Five new features such as taking care of correct pronunciation ($n=6$), sounding like natives ($n=5$), fluency ($n=5$), correct stress ($n=5$) and good intonation ($n=3$) appeared, which shows the learners' growing pronunciation awareness and developing phonetic metalinguistic knowledge. In response to the query about the importance of pronunciation in speaking, both the groups claimed pronunciation was important. After the investigation, five more learners in the experimental group and two more in the control group stated pronunciation was very important. The others opted for the answer: quite important. Interestingly, the answers oscillated between very important and quite important, which leads to a tentative conclusion that secondary school learners realise the vital role of pronunciation in speaking.

Finally, the last question referred directly to the choice of strategic behaviours the participants employed with a view to improving pronunciation. Before the experiment, both the groups mentioned two cognitive strategies (listening to authentic material/songs in English and repetition out loud) and one social strategy (speaking English with a friend). After the intervention, the responses in the control group did not change. However, there has been a relevant increase in the experimental group reports (from 9 to 15 learners who mentioned listening, from 5 to 9 indicating repetition and from 3 to 6 reporting speaking with a friend). More importantly, the experimental group learners pointed to nine new strategies adopted and developed in the course of the instruction. The list includes seven cognitive strategies mentioned by the learners such as noting down transcription of new words ($n=11$), focusing on own speech ($n=9$), paying attention to sounds ($n=8$), memorising the teacher's corrections ($n=6$), practising difficult sounds ($n=5$), repetition after a model ($n=4$) and trying to speak whenever possible ($n=2$). Two new metacognitive strategies also emerged from the post-questionnaire, i.e. expecting to be corrected ($n=5$) and planning time for pronunciation practice ($n=1$).

As regards the participants' self-assessment of speaking and pronunciation skills, the results are presented in Tables 2 and 3 (which provide the numbers of learners who assessed their skills as excellent, very good, good, sufficient or poor). With respect to speaking, it could be discerned that one more person assessed their speaking as very good in the experimental group after the experiment and two more – as good, which leads to five and not eight learners who evaluated their speaking as sufficient. The number of participants who assessed their speaking as poor remained constant (n=3).

Table 2: *Speaking skill self-assessment*

Speaking assessment	Experimental		Control	
	Pre-	Post-	Pre-	Post-
excellent	1	1	0	0
very good	2	3	3	3
good	6	8	7	6
sufficient	8	5	5	6
poor	3	3	4	4

When asked to assess their pronunciation skills, the participants provided the data shown in Table 3, which indicate certain perceptual improvement in the experimental group. While six of them described their pronunciation as poor before the instruction, no one selected this option after the period of phonetic training. Thus, two more learners defined their pronunciation as very good (n=4) and three more – as good (n=9). Undoubtedly, the data represent only perceptions of the learners, which might be subjective and biased, but they show that the participants have gained a degree of self-confidence in the field of pronunciation and their own pronunciation skills. This, in turn, might lead to further efforts to develop efficient strategies that will promote pronunciation improvement.

Table 3: *Pronunciation skill self-assessment*

Pronunciation assessment	Experimental		Control	
	Pre-	Post-	Pre-	Post-
excellent	0	0	0	0
very good	2	4	3	3
good	6	9	6	6
sufficient	6	7	6	7
poor	6	0	4	3

Participant observation on a daily regular basis provided field notes comprising queries and doubts the experimental group raised during the lessons or breaks (the control group displayed interest in lexical and grammatical aspects related to their warmers). The experimental group learners frequently asked for phonetic transcription of new words claiming it facilitated remembering correct

pronunciation. They displayed increasing attentiveness to English sounds and found how they contrasted with the Polish ones in examples such as *ten*, *film* or *pan*. All these three words occur in both Polish and English, but their pronunciation differs significantly due to such distinctive (i.e. different from Polish) English phonetic features as aspiration, velarized /l/ and the vowel quality of /æ/ and /ɪ/. Some of the participants (n=11) identified certain pairs of words and wanted to know whether they were homophones or not (sun/son, die/dye, won/one, pear/pair, where/were, beard/bird were just a few examples). A few of the learners (n=4) shared their observations related to the articulation of the dental fricatives and velar nasal and how they tried to practise them and how dissatisfying and disappointing the outcomes were. Two learners discerned how difficult it was to approximate the production of the trap vowel in English. What seemed to work and help them was the explanation of the vowel diagram and the description of the vowel in terms of its height and advancement and in contrast with the Polish vowels /a/ and /ɛ/. What the participants also reported was more conscious and more frequent exposure to English outside the classroom, namely by means of watching different films and podcasts (n=13). They themselves noticed that more exposure contributed to better understanding and more accurate pronunciation.

The following comments, which show the growth of the phonetic awareness, are among many noted down as a result of the discussions initiated by the experimental group learners during lessons and breaks:

- *I didn't realise how many pronunciation mistakes I had made before* (ES5)
- *I try to think about sounds when I speak* (ES7)
- *If I listen more, I think my pronunciation becomes better* (ES8)
- *I would like to speak like British native speakers* (ES11)
- *Transcription shows exactly how to pronounce difficult words, but someone has to teach you* (ES17).

Furthermore, some of the learners voiced positive opinions on the warmers and underscored the impact the warmers exerted on their growing sensitivity to pronunciation:

- *The exercises on pronunciation made me think about how I speak* (ES11)
- *Thanks to the pronunciation exercises I started to notice how people speak* (ES12)
- *It is so much fun to practise pronunciation, sometimes the warm-up is the best part of the lesson* (ES11)
- *I looked for more examples of words with -ing to practice* (ES15)

With respect to the first research question, the analysis provided evidence that the experimental group learners' awareness increased and they developed nine new PLS, which emerged in their reports. This development can be associated with the regular and planned phonetic warm-ups. The control group did not report such an increase in the strategies' employment as the experimental one, which could be related to the fact that their warmers were grammar- or lexis-based. Both the groups displayed a few strategies before the intervention, however, when it was completed, increase in the number of PLS occurred in the experimental group

reports only. As regards the type of strategies that the participants developed in the course of the experiment, there were seven cognitive strategies related to the learning process and cognition and two metacognitive ones connected with time management and monitoring the speech.

5. Discussion

The study has provided data on the perceptions of secondary school learners on speaking and more importantly on pronunciation and how relevant they consider it in the process of speaking and communication. None of the learners discarded the crucial role of pronunciation in speaking, realising it was either very or quite important, regardless of the group belonging or whether the statement was made before or after the experiment. Thus, it can be stated that pronunciation constitutes a crucial factor affecting speech and communication efficacy (also argued by Waniek-Klimczak and Klimczak 2005; Pawlak et al. 2015) not only in the views of university students, but also of secondary school learners, which is an important finding. It also bears pointing out that the presented results confirm the claims made by Baran-Łucarz (2017) and Jarosz (2019), as this study also shows that systematic phonetic instruction leads to raised phonetic awareness among secondary school learners. Furthermore, the data constitute evidence that pronunciation teaching is feasible in the secondary school context and in state institutions (Jarosz 2019) even if in a constrained form of warm-ups, which are methodologically recommended at the beginning of each lesson. The phonetic warmers encouraged the participants to seek more information, to become sensitive to speech and sounds and to extend the process of learning to out-of-class contexts, where it could evolve into a less artificial, more authentic, natural and beneficial process. Phonetic instruction guided the participants in their search for autonomy and for their own strategies capable of affecting and facilitating their learning process. Therefore, as was observed by Sardegna, Lee and Kusey (2018), the more phonetically aware the learners, the more effort they take to improve their pronunciation. The efforts and attempts they undertake, consequently, translate into a set of strategic behaviours which aid them in achieving their pronunciation goals. The study shows that even though the participants did not receive any strategy training, they developed a number of useful strategies on their own as a follow-up of the regular phonetic instruction (Jarosz 2019). Thus, on one hand, phonetic instruction propels the employment of PLS, which, on the other hand, promote further pronunciation improvement and contribute to increasing learners' own self-efficacy. It does not mean, however, that learners should be left to their own devices in the selection of strategies. As Sardegna and McGregor (2013) indicate, the role of the teacher is to provide guidance in this field, which, as a result, together with requisite knowledge and adequate empowerment leads to more effective and successful strategy choices.

6. Conclusion

The present study constitutes a significant contribution to research on pronunciation learning strategies, their development, efficacy and usefulness because it adds to the understanding of the interplay between phonetic instruction and PLS. Instruction raises awareness and leads to the emergence of PLS, which enhance and propel the learning process. More knowledge stimulates learners to seek new independent and autonomous solutions and to build their own repertoire of strategic behaviours tailored to their individual needs and preferences. The study identified three strategies used by secondary school learners before the teaching intervention and showed how their strategic array increased after five months of pronunciation instruction. The control group, which did not report any new strategies after the experiment, might be an indicator of the mutual interdependence between the phonetic intervention and PLS development. An unquestionable strength of this study is the fact that it was conducted in the state secondary institution and it investigated learners in their natural context, in which they learn English as a foreign language (EFL) with limited access to natural face-to-face English communication. Their actions and behaviours could, however, be scrutinised throughout the intervention and the whole five-month general English teaching period, which also adds to the value and relevance of the research findings. The study has, however, certain limitations. The main one derives from the fact that the questionnaire was open-ended with the aim of eliciting the participants' true and free from any suggestions or bias responses. It cannot, therefore, be univocally stated that all the employed strategies were mentioned; there might have been more overlooked by the learners in their reports for numerous reasons, such as absent-mindedness, forgetfulness or metalinguistic unawareness and inability to name certain actions or to evaluate their usefulness.

Thus, the need for further research into pronunciation learning strategies' development is needed for both scientific reasons and pedagogical implications. As Levis (2019) observed, these two fields ought to meet halfway and the gap needs to be bridged so that they could benefit from each other. On one hand, the present study contributes to the literature on pronunciation strategies, which is still developing and on the other, it proves pronunciation instruction is possible in schools and leads to benefits for the learners in terms of their boosted development and awareness of the relevance of pronunciation aspects in speech.

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