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# Language Teachers Becoming Researchers - on Ways of Arguing about One's Research by Non-Native English Teachers

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**Abstract:** Teacher research is becoming a more and more important area of study in applied linguistics and language pedagogy. We witness growing importance of individual research procedures for increasing teaching effectiveness in one's own teaching micro-setting. It is not enough, though, for instructors to plan and implement action research, but it is also necessary for them to verbalise their research undertakings. Arguing about one's research helps gain metacognitive awareness, increases teaching consciousness and maximises in-service development opportunities.

The present study investigates the way teacher researchers argue about their research in research paper openings and closings. The data collected come from an unguided setting, the one in which teacher writers had not been subjected to any form of academic writing instruction. A corpus of almost 80,000 words from 83 teacher writers was analysed quantitatively and qualitatively to draw conclusions about teacher-as-researcher voice construal.

**Key words:** teacher as researcher, action research, teacher voice, EFL

## Introduction

Reporting, arguing, discussing and concluding about one's own research are essential skills of any researcher, which are a part of well-established canon of scientific communication. Research abstracts, articles, project proposals and dissertations have certain characteristic linguistic features as well as conventionalized forms of reference, which are often assessment criteria set by journal or dissertation reviewers. Delivering one's research ideas is a part of English for Academic Purposes instruction and is a subject of training courses at under-graduate, graduate and doctoral programmes.

However, while academic writing instruction helps one's writing style conform to the conventions of global research communication, it is interesting to see how practising teachers communicate their research points without such explicit training. In other words, the ways, strategies and linguistic devices used to argue about one's research and construe one's voice as teacher-researcher are an interesting topic to examine. Most importantly, it is useful to see what is the effect of classroom communication style used by teachers on their communication in research writing, to check the extent to which practice permeates research, as well as to examine whether teacher-researchers see their research findings in a broader perspective with reference to the teaching profession in general, or whether they find them mainly applicable in their own practical reality only.

The aim of the present paper will be to elaborate upon the topic of language teachers construing their voice as researchers without explicit training in academic writing. To meet that purpose, a custom-made

corpus of research thesis introductions and discussions written by post-graduate Polish teacher trainees will be subject to quantitative and qualitative analysis.

## Background to the study

### Natural vs. classroom communication

Studies of characteristics of teacher talk in the classroom, as well as patterns of teacher talk vs. student talk, interactional turns, broadly termed 'classroom discourse analysis' (Walsh, 2006; 2013) abound (Csomay, 2006; 2007; Rahmawati et al., 2020; Yanfen, & Yuqin, 2010; Rezae, & Farahian, 2012; Nasir et al., 2019; Zolghadri et al., 2019, to quote just a few). Much interest has been placed in the area of investigating the types and aims of teacher questions (e.g., Faruji, 2011); ways of delivering teacher correction and feedback (Wu, 1993; Walsh, 2002; Alanazi, & Widin, 2018); teacher codeswitching (Cook, 2001; Domalewska, 2017; Saionara, & Gloria, 2007; Liu, 2010). However, there is scarce research into how language teachers communicate their pedagogical innovation in writing. In other words, how oral teacher L2 language becomes written L2 language, more importantly, how oral and informal discourse becomes written and formal. This means that the current study is even more important in terms of the overall focus on mediation as the fourth pillar of foreign language acquisition (after reception, production and interaction) as emphasised in the recently published Companion Volume to *Common European Framework of Reference for Languages* (Council of Europe, 2018).

At this point, reflection on the classroom as a communicative context, with teacher talk as the major source of L2 input, needs to be made. According to Nunan (1987), genuine communication is characterized by uneven distribution of information, negotiation of meaning (through, for example, clarification requests and confirmation

checks), topic nomination and negotiation of more than one speaker, and the right of interlocutors to decide whether to contribute to an interaction or not. In genuine communication, decisions about who says what to whom “are up for grabs” (Nunan, 1987, p. 137). These criteria of communicativeness lead Nunan to the conclusion that “there is growing evidence that, in communicative classes, interactions may, in fact, not be very communicative at all” (Nunan, 1987, p. 144). This view is supported by Kumaravadivelu (1993, pp. 12–13), who claims that

In theory, a communicative classroom seeks to promote interpretation, expression and negotiation of meaning... [Learners] should be encouraged to ask for information, seek clarification, express an opinion, agree and/or disagree with peers and teachers... In reality, however, such a communicative classroom seems to be a rarity. Research studies show that even teachers who are committed to communicative language teaching can fail to create opportunities for genuine interaction in their classrooms.

Natural communication is characterized by unpredictability – of content, of form, of response level, of cooperation degree, of language/dialect/accents used. Therefore, the sociolinguistic variance in real-life settings (be it face-to-face or online) is much greater than when the teacher carefully monitors the classroom input. The result of the unpredictable nature of real-life interaction is also information gap – we usually ask because we want to find something out and respond because we have the required information. Hence, potential language difficulty resulting from unpredictability and diversity of form may be compensated for by a greater inherent purpose to communicate. Redundancy, incompleteness and skill integration stand in some kind of contrast to one another. Real-life communication often uses different skills because one responds to written or oral input and switching between skills and modes of language use is quite frequent. At the same time, however, the richness of skills goes with incompleteness of

the linguistic message, as speakers do not have to respond with a fully perfectly formed sentence as is required of students in the classroom. In natural communication information elements are often repeated, rephrased, put in a different linguistic form or assisted by other kinds of input or non-verbal expressions – hence, redundancy appears.

Classroom communication is characterised by teacher power over communication, in terms of who speaks, what about, when, in what order, how long, with what repetitions, with what voice quality, and to what level of satisfaction of the listener. The degree of teacher control over the classroom has been changing over the last century from the very strict and rigorous behaviourist Callan Method or the Audiolingual Method through shifting power in the Communicative Approach or the Natural Approach to highly learner-oriented Community Language Learning or the Silent Way. Teacher control over classroom interaction is a matter of not only correcting errors or nominating learners to speak, but also deciding about the content, both in terms of linguistic features and actual information to be expressed. It is up to the teacher to decide whether and when the learner's answer is to be accepted – based on communicative quality, correctness or use of required language items. Hence, answer definition usually lies within the hands of the teacher, enforcing the artificial and instructed character of classroom interaction.

Predictability of form and content, register uniformity and equality of information levels are further features that make classroom interaction different from what students will be exposed to outside the classroom. For reasons of reinforcing previously or currently learnt grammatical structures and lexical items, one can reasonably expect classroom language use to be centered around familiar items. While this makes it easier for learners to cope with L2 input, they might not become sufficiently prepared for inevitable unpredictability of natural interaction

(of accent, neologisms, slang and colloquialisms). Due to clear division of social roles into teacher and learners, it is rather infrequent that classroom communication would go beyond the typical formal or semi-formal register. Teachers rarely go out of their roles and provide more colloquial input, also for the fear that the quality of such input will not be sufficient to consolidate educated and correct language usage. Finally, while students communicate with one another in pairs and groups, they usually have a similar amount of background knowledge and are familiar with others' preferences, experiences, hobbies and interests. This reduces the natural desire to speak and decreases the ability to promote communication.

### Teacher talk in the language classroom

Teacher talk (TT) is a commonly known phenomenon, a major focus of study of a number of researchers. As defined in *Longman Dictionary of Language Teaching and Applied Linguistics*, it is "that variety of language sometimes used by teachers when they are in the process of teaching. In trying to communicate with learners, teachers often simplify their speech, giving it many of the characteristics of foreigner talk and other simplified styles of speech addressed to language learners" (Richards, & Schmidt, 2002, p. 471). Ellis (1985, p. 145) has formulated his view about teacher talk as follows: "Teacher talk is special language that teachers use when addressing L2 learners in the classroom. There is systematic simplification of the formal properties of the teacher's language... Studies of teacher talk can be divided into those that investigate the type of language that teachers use in language classrooms and those that investigate the type of language they use in subject lessons."

Input simplification is expressed in more detail by Chaudron (1988) in the following set of features of teacher talk: slower speed, more frequency of pause showing speakers' thinking or conceiving

and with longer time, clearer and more understandable pronunciation, easier chosen vocabulary, lower subordinate degree (less use of subordinate clauses), more narrative sentences or declarative sentences than interrogative sentences, and more frequency of teachers' self-repetition. These modifications make teacher talk a simplified code which aims to provide maximum comprehensible input for language learners so that teachers and students can maintain an unobstructed channel of communication.

There are a number of benefits such a simplified code brings to the language classroom. As Allwright and Bailey claim, "talk is one of the major ways that teachers convey information to learners, and it is also one of the primary means of controlling learner behavior" (1991, p. 139). It is the major source of comprehensible target language input in the instructed language learning environment, thus playing an integral role not only in the organization of the classroom but also in the process of acquisition (Nunan, 1991). Walsh (2002) stresses that there is often an unappreciated or missed relationship between teacher talk and learning opportunities. When teacher talk matches the pedagogical focus of the task, learning opportunities emerge, but when it does not, teacher talk becomes obstructive (Walsh, 2002).

Another important phenomenon of language teacher talk is the presence of translanguaging, code-switching and code-mixing, indicating the prominent use of L1 in monolingual pedagogical contexts. Learners choose to use L1 in the classroom for numerous reasons (Krajka, 2004):

- the task they are given by the teacher is too complicated to be done in L2;
- students do not perceive using L2 as something natural, since the teacher does not procure enough communication situations which would elicit natural production of L2 input;

- consciously or not, the teacher encourages learners to use L1 by speaking it himself or herself;
- students find using L1 as an avoidance or misbehaviour strategy, especially during pair/group work.

On the other hand, the most frequent reasons why language teachers use L1 rather than L2 in language instruction are:

- to facilitate students' understanding of what they are supposed to do next while giving instructions for tasks, either straight away in L1, as an immediate translation of instructions after the L2 version or code-switching to give crucial parts in L1;
- to explain features of grammar, an activity which, however, does not have to be successful due to differences between L1 and L2 language systems and learners' lack of familiarity with metalanguage in L1;
- to present vocabulary in a quick and efficient way by giving one-word L1 equivalents, which is highly expected by some learners (for example adults), but which may discourage learners from attempting to figure out the meaning for themselves;
- to engage in small talk at the end of the class or in organizational matters throughout the lesson, such as giving feedback on assignments, explaining grades, giving prospects on how learning is going to progress in the near future;
- to adapt L2 input if teachers think learners are likely to misunderstand teacher talk on a particular topic;
- to hide one's (actual or assumed) lack of fluency in L2 or imperfect pronunciation.

Quite interestingly, rather than hegemonizing L2, Cook (2001) claims that the usage of L1 can be beneficial for students and "alternating language approaches", where both L1 and L2 are used in a language classroom, are most beneficial for language development. Reciprocity, when "both languages are involved without either one being taken for granted" (Cook,

2001, p. 411), is a useful strategy for conscious teachers respecting L1 while promoting L2 development. For Cook (2001), whenever deciding whether to use or allow for the usage of L1 or not, the teacher should take its impact on efficiency, learning, naturalness and external relevance into consideration.

When we think about sound pedagogical uses of the mother tongue, L1 may be incorporated into a lesson in the following ways (Scrivener, 2005):

- The teacher may ask learners to make an oral summary in L1 about the text they read in L2.
- Students can think about differences in grammar between L1 and L2 and describe them to the teacher.
- The layout of various written forms functioning in L1 and L2 can be compared.
- The teacher can draw students' attention to the differences in pronunciation of sounds in L1 and L2.
- The teacher may explain certain issues in L1 when the situation requires.

As classroom observations show (Komorowska, & Krajka, 2020), many teachers are careful to try to separate L1 and L2 language use, refrain from switching to L1 right after an L2 sentence to provide translation or mixing up L1 words in L2 input to facilitate comprehension of more sophisticated words. Such instructors, who are oriented at providing exposure to quality L2, should set up boundaries for language use (both for themselves and for their learners), having a clear awareness in which parts of the lesson L1 facilitation is possible or even recommended. At the same time, gentle yet consistent reactions to any cases of "interlingual transfer", linguistic interferences/borrowings/insertions from the system of L1 onto L2 (Brown, 2007) should be provided, however, trying to react appropriately depending on the reason of such errors or classroom moments. As Komorowska

and Krajka (2020) recommend, the teacher needs to be aware of the value of promoting contextualized presentation and practice of the new material, but, at the same time, should not refrain from reasonable decision-making when it comes to offering L1 equivalents, providing L1 instructions or grammatical commentaries and explanations in the mother tongue of the students in order to save time and minimize unnecessary difficulty.

### Language teachers communicating research

The language used by teachers, or English for Language Teaching Academic Purposes, is a subbranch of English for Specific Purposes. ESP and ELT are quite interlinked as nowadays ESP researchers are interested not only in pedagogy but also in its place in the context of genre, corpus studies, identity and ethnographic approaches (Paltridge, & Starfield, 2013). What is commonly known as ESP is “the special discourse used in specific settings by people sharing common purposes.” (Ruiz-Garrido et al., 2010, p. 1). As more and more specialisms started to appear together with the development of ESP, researchers differentiated various branches of ESP courses. Hutchinson and Waters situated ESP as a branch of EFL in opposition to GE, General English, also referred to as EGP, English for General Purposes. In 2000 Alcaraz-Varó introduced a specific term related to ESP: “English for Professional and Academic Purposes” (EPAP) which merges profession with education (qtd. in Ruiz-Garrido, Palmer-Silveira & Fortanet-Gómez, 2010, p. 1). It is this last notion, which can be made even more transparent by calling it “English for Language Teaching Academic Purposes” (ELTAP), which is the context of the present research. The distinctive nature of ELTAP is stressed by the fact that ELTAP users (teacher researchers) are on the one hand lifelong language learners, acquiring the target language at the C1/C1+ level of proficiency within

the areas of academic reading, writing and presentations skills, and, at the same time, language researchers, observing patterns of language use, finding regularities and aberrations, describing activities for learners. This dual nature of ELTAP users makes metacognitive reflection over one's own language use a must.

The major contexts of ELTAP (and at the same time responsibilities of ESP teachers) are preparation of materials, addressing learners' motivation, selecting and adapting content to suit the current level of students' knowledge and engaging them in this way into the process of learning. Therefore, English for Academic Purposes for professional teaching contexts as a sub-domain of EAP demands not only building language proficiency within receptive and productive skills, but also increasing research attitudes, stimulating willingness to experiment in the language classroom and finding ways to report and argue upon one's practical research. Consequently, the issue of "teachers-as-researchers" and the way they construe their voice and present their case is an important aspect of ELTAP.

The contemporary EFL classroom assumes the language teacher performs a multitude of roles (Harmer, 2001; Zawadzka, 2004; Krajka, 2012). At different moments of instruction, they are to adopt different stances, strengthening and loosening control over learners and allowing them greater or lesser autonomy as needed. Some of the most crucial roles are manager, organizer, evaluator, facilitator, controller, prompter, assessor, stimulator, source of language input, tutor, resource/teaching aid, performer, language model, observer, expert and researcher. Out of this plethora of roles, for the interest of the current study two specific roles deserve focusing on, namely reflective practitioner and expert/researcher. The role of reflective practitioner (Williams, & Burden, 1997) assumes pondering over the most suitable instructional style, observing classroom incidents critically and proposing remedial action

(Wysocka, 2003). This is similar to the role of teacher as researcher, which, according to Grucza (1993), does not necessarily involve executing empirical research in the classroom according to all rigours of particular methods, but, more importantly, exhibiting the skills of independent thinking, critical evaluation of theoretical frameworks, seeking own solutions to practical problems and preparing learners for independent intellectual activity. This role overlaps with the functions of critical investigator of published didactic materials, conscious adaptator and materials writer (Dylak, 2006). In those teaching contexts that are strongly method-oriented (for example Berlitz schools or Callan schools), roles will be prescribed or imposed on teachers, with little or no possibility of rejection. Role prescription can also be done indirectly through coursebook procedures (or recommendations in the teacher's book). Role enactment (or adoption) may be a conscious effort of a language educator, or, on the contrary, a part of instruction guided by materials. In some cases, one can experience role conflict, especially when an individual's ideas about how teaching and learning should proceed (often established years ago during teachers' own language education or initial teacher development) contradict or interfere with what is assumed by the materials or what is expected by the learners or course sponsors.

### Teachers as researchers

Teachers can think of themselves as explorers, researchers and ethnographers. Their workshop is the students themselves, their families and neighborhoods, and the ever wider circles embracing larger and larger communities (Ayers, 2010). The classroom is a natural research site, as teachers regularly implement pedagogical innovation through observations, field notes, collected samples, and informal interviews with students in order

to inform their decisions about curriculum implementation. As Cochran-Smith and Lytle (1993) state, research can and should be an important part of teacher empowerment and educational reform. Such inquiry can be viewed as knowledge-based, outcome-centered, and resulting in learning opportunities for students. Teacher research also allows educators to build local and public knowledge through ongoing learning (Cochran-Smith, 2001), emerging from their own curiosity and reflective inquiry on their individual practices (Farrell, 2018; Mann, & Walsh, 2017).

Teacher research has been defined as “systematic self-study by teachers (individually or collaboratively) which seeks to achieve real-world impact of some kind and is made public” (Borg, & Sanchez, 2015, p. 1). It may include different approaches such as action research (Freeman, 1998; Burns, 2010; Borg, 2013; Dikilitaş, & Griffiths, 2017; Banegas, & Villacañas de Castro, 2019), exploratory practice (Hanks, 2017a; 2017b), exploratory action research (Smith, 2015; Smith, & Rebolledo, 2018), self-study, lesson study, design-based research and scholarship of teaching and learning (Admiraal et al., 2014).

Teacher identity is created, on the one hand, through pre-service teacher development, on the other, through in-service teacher research. As Banegas and Cad (2019) put it, to build a teacher research identity, teachers need to be guided and supported from the early stages of their initial English language teacher education programmes into their in-service teacher education so that they engage in research and further deepen reflection. The development of teacher-researcher identity is related to teachers' sense of agency to learn more about research, make choices, take control, and pursue their goals (Edwards, & Burns, 2016). All of these factors contribute to their development and self-identification as researchers.

Even though in the teacher's work there is the intersection of teaching and research, the classroom is not a laboratory but a complex

and dynamic system with many moving parts, which interact often in an unpredictable way (Megowan-Romanowicz, 2010). In order to optimize the impact of their teaching practice, teachers must turn away their perception from their own work (teaching) to their students' work (learning – Fuller, & Brown, 1975). The teacher watches and listens carefully, reflects upon students' utterances, actions and reasoning, trying to make sense of student-teacher interaction and adjust his or her teaching practices accordingly (Feldman, 1996). According to Gray and Campbell-Evans (2002), when teachers do classroom research, they begin to view themselves as learners, their classrooms as places where they are learning, and the data collected as data to be understood (Keyes, 1999). Teachers who engage in research are considered to have an increased understanding of the complexities of the school community and learning environment (Caro-Bruce, & Zeichner, 1998).

However, for teachers to become researchers is a challenging process – they need to become critical consumers of research, learning to understand and blend quantitative and qualitative approaches (Fallon, & Massey, 2008). Moreover, they need to develop the ability to understand and interpret existing research, set up and conduct their own research methods, as well as apply their research knowledge to the daily practices and routines of the classroom (Massey et al., 2009). This is often done against a professional culture that might not value teacher research (Kitchen, & Jeurissen, 2006) and might devote a much higher value to immediate, unreflective and routine action (Calderhead, & Gates, 1993). The feeling of helplessness and lack of power to change the system, according to Nair (2007), may contribute to teachers' reluctance to be involved in research.

To evaluate reflections of teachers, Taggart and Wilson (2005) propose a three-layered reflectivity pyramid including technical, contextual and dialectical levels. Teachers on the technical level focus

on achieving the desired outcomes rather than ponder upon the effects of these outcomes on student learning or their own professional improvement. The contextual level of reflectivity goes beyond the outcomes and prioritizes other interlocutors in the classroom such as the students and their needs. When they are at this level, teachers look for alternative ways to promote improvement. The third and the highest level of reflectivity, dialectical level, involves critical reflection and analysis of the rationale behind actions, evaluating theories and questioning experiences within a broader lens. This is also when teachers are ready to question the effects of the outcomes in a wider social perspective.

Teachers' belief systems are built up gradually over time and consist of both subjective and objective dimensions. Teachers' beliefs influence their consciousness, teaching attitude, teaching methods and teaching policies, and finally, learners' development. As Richards and Lockhart (1994, p. 29) state, "what teachers do is a reflection of what they know and believe". Teachers' belief system plays a decisive role in teaching/learning of English, in their willingness to become reflective practitioners (Schön, 1983) and small-scale educational researchers.

Our focus in the present paper is to see how teachers construe their research stance, how they adopt the role of researchers/reflective practitioners and how they construct their professional voice in the target language. In particular, it is interesting to analyse their discourse samples to see how theory and practice permeate their research writing, how the features of classroom communication (rather than scientific communication) described above become reflected in the introductions and conclusions produced in the course of research paper writing.

## The study

### Study aims and research questions

The main aim of the present study was to investigate how language practitioners – Polish non-native teachers of English – construe their voice as researchers and argue on their research objectives and achieved results. In particular, it was interesting to see to what extent practice permeates theory and in what way classroom communication as described above will find its reflection in the way individual study findings are sketched and reported. In particular, the study aimed to answer the following research questions:

- 1) What topics and issues are evoked by language teachers when planning and reporting upon their individual research?
- 2) To what extent are teachers' reflections influenced by internal factors (their personality features, experiences gathered during own learning, prior teaching or practicum) or by external factors (previous research, authorities, school mentors)?
- 3) How much do they report upon their actions as research, whether and how much they generalise their findings or whether they treat them only as enrichment of their individual skillset?
- 4) What is the linguistic realization of teacher as researcher persona? To what extent do they address the reader, use rhetorical questions, transfer their first-hand experience?
- 5) To what extent are teachers repetitive in their research sketching (introduction) and reflection (discussion)?

### Participants and materials

Investigating teacher as researcher persona is rather elusive as there are few contexts in which practising teachers conceptualise their pedagogical

innovations, report upon creative experimentation in the classroom and draw conclusions based on their actions. Such accounts are infrequent in writing, and even less so in the target language. The participants for the current study were 83 practising teachers taking a 3-semester post-graduate ELT re-qualification study programme, which entitles graduates of subjects other than English (as well as graduates of non-teaching specialisations of English philology) to teach English at all kinds of schools. The programme was offered by a middle-sized private university in Poland and the data were collected over the period of two years (2016/2017 and 2017/2018). The teachers came from different backgrounds and had varying age and level of experience, however, due to need for anonymity no demographic features could be exploited to avoid identification of the participants. The only sociodemographic feature that could be exploited in the current study might be the level of education a particular writer had contact with (either during actual teaching or practicum), namely kindergarten, primary, secondary or adult. However, since this could only be inferred from the titles and topics raised by authors with no certainty, it was not taken under consideration in the analysis.

The data were collected from research papers that were individually written by student teachers to complete the programme. The papers were supposed to report upon the process of authoring pedagogical innovation in the action research paradigm, subdivided into the following stages: conceptualisation/research aims, action 1/ observation, action 2/interview, action 3/bank of activities, reflection and discussion. The research corpus analysed in the current paper was composed of initial (aim of the research) and concluding (reflection and discussion) parts of each final paper written over the period of two years. The total corpus collected from 83 writers amounted to almost 80 thousand words (77,983 in total), with almost equal shares of research aims (40,311 words) and research discussions (37,672 words).

It is important for the present study that apart from explaining the research paper structure, helping with topic formulation and consulting research instruments or activity samples by the researcher, the participants did not receive the usual support from the supervisor in the form of language correction, language guidance or feedback on errors during separate seminar classes. Due to the requirements of the practical nature of the study programme, there was no such separate seminar class, which means that while the teachers were given necessary guidance as for content, structure and research plan, their papers did not get any language polishing. Thanks to that, the data in the corpus are raw, in the sense of portraying the way the teachers write about their own research with no intervention of anybody else.

The second important factor influencing the reliability of data was the absence of any kind of academic writing class in the curriculum of the post-graduate ELT requalification study programme. The practical orientation of the course demanded greater emphasis on teaching skills, knowledge and abilities in the fields of psychology, pedagogy and foreign language didactics. As a result, the curriculum did not include any formal writing class, which again means the data in the corpus reflect the participants' own voice creation, without any external intervention.

### Design and procedure

The study was located in the mixed-methods paradigm, bridging the quantitative perspective involved in looking at percentages, frequencies, contexts and co-occurrences with the qualitative view trying to exploit the context and find recurring themes and overarching characteristics. In general, the study was framed in the field of corpus linguistics, showing the application of an ad-hoc corpus to portray teacher as researcher

persona through linguistic features and themes appearing in thesis openings and closings.

The first stage in the corpus creation process was the extraction of the two relevant parts of each of the 83 research papers, namely opening (introduction/aim of the research) and closings (evaluation and discussion). For sake of quantitative analysis, each such extract was placed in a separate text file (with .txt extension as most convenient for a concordancer), for each thesis a file with introduction and a file with conclusion was created with distinct filenames. No language editing was done, the only interference in the text was removal of footnotes whenever they appeared as being outside the main line of argumentation.

The corpus was subjected to quantitative and qualitative analysis in three steps, using three different tools as described below:

1) *Lextutor's Text-Lex Compare tool* ([https://www.lex tutor.ca/cgi-bin/tl\\_compare/](https://www.lex tutor.ca/cgi-bin/tl_compare/)) was used to calculate the recycling index between introduction and discussion of each paper, to see the extent to which each writer expanded upon/repeated/omitted ideas from introduction in the reflection.

2) *AntConc* concordancer (<https://www.laurenceanthony.net/software/antconc/>) served to produce a frequency-based word list, to examine collocations and clusters with selected words, to verify the position of selected words in texts.

3) *NVivo 12 Pro* (<https://www.nvivo.pl/?nvivo-11,122>) enabled conducting more sophisticated text queries with content words, coding the corpus for recurring themes and patterns, noticing regularities in the qualitative data and visualizing the data.

The initial decision to use *NVivo 12 Pro* for all the stages of the analysis due to its versatility and multi-functionality was changed once it turned out that *NVivo* is insufficient in some areas and needs to be supplemented with external free solutions. Most importantly,

due to the in-built stoplist which excludes all function words, it was impossible to make a frequency list with pronouns (*I, me, my*), imperative forms (*let's*), modal verbs (*will, shall*), passive voice markers (*be, been*) or tense markers (*have, has, had, is, are*). These features are useful signposts for first-person argumentation in research writing.

## Results and findings

### Quantitative analysis

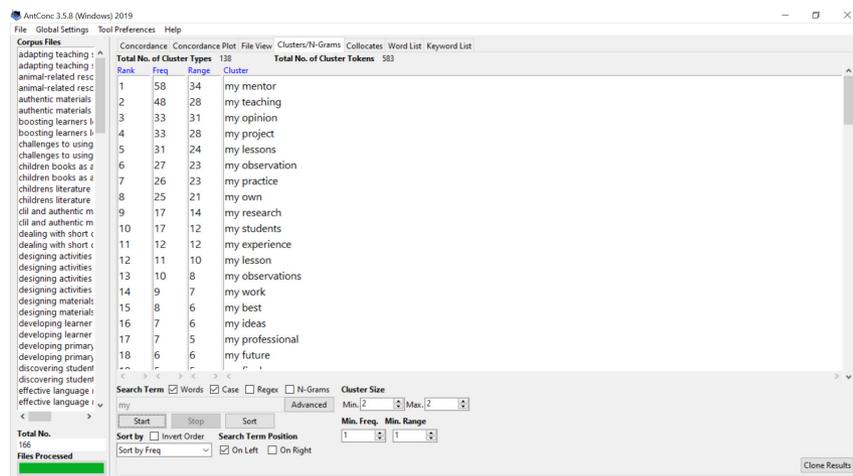
The use of *AntConc* and *Text-Lex Compare* enabled gaining the overall picture of the collected corpus in the quantitative perspective. The mean for individual writers' introduction and reflection was similar (485.67 and 453.88 words) respectively, however, quite a lot of individual variation could be noted in the length of these parts. Introductions ranged from 53 words to 2,243 words, with the majority (69 out of 83) located within the 200-700 word range. Reflection parts ranged from 0 to 1,754, with the majority (50 out of 83) located within the same 200-700 word range. The writers split almost evenly into those who made longer introductions than conclusions (47 out of 83) and those that went for the opposite (36 out of 83), however, in most cases the figures were quite similar. This seems to indicate that the writers generally paid an equal amount of attention to describing both conceptualisation and conclusion of their research.

Another interesting point to analyse quantitatively was the recycling index, or the degree of textual similarity between the opening and closing produced by each writer. Here, the mean was 69.59%, which indicates that the teachers used almost 70% of the same words in both texts. Of course, there was individual variation here as well, however, the predominant number of writers were in the 50-80% range. Relatively high recycling index values might indicate, on the one hand, that the writers take up the issues raised in the introductions and discuss them

in the reflections to quite a considerable extent, which demonstrates a necessary level of control of their research argumentation. Another explanation, however, can be a relative narrow band of lexicon used in both parts of papers, which might be the cause of lack of formal linguistic training in how to describe research.

When the corpus was subjected to *AntConc* concordance analysis, it turned out that the number of first-person references (*I, me, my, mine*) amounted to as many as 1907 occurrences in with *I* sentences accounting for almost two thirds of these (1207 cases). The most frequent collocates for *my* can be seen in Figure 1 below, clearly indicating preference of practicum, own teaching and mentor's influence over curriculum, external sources or previously published research.

Figure 1. Most frequent collocations with *my*



Source: Author's own elaboration.

Personal orientation is also visible in the contrast between the frequencies of *teaching+teacher* vs. *learning+learner* – the ratio of 900 to 402 clearly shows how teacher researchers were focused on themselves, on improving their own skills and concluding about how they are going to

do better in the future. Out of 77 concordances with *opinion/belief*, only 12 referred to agents external to the teacher researcher him/herself, with the predominant number of cases expressing personal opinion and feeling.

Further analyses of a similar kind, while useful for spotting style peculiarities of individual writers, do not lead to sufficient generalisations. Hence, there was a need for qualitative analysis of the corpus data, to which we turn below.

### Qualitative analysis

In the second stage of the research, specific files for thesis openings with research aims and thesis closings with research discussions were subjected to manual coding within *NVivo 12 Pro*. In general, all the files were scrutinized for occurrences of such linguistic features as pronouns (first-person singular, second-person singular, first-person plural, second-person plural), references to external factors (mentor, parents, authorities, previous research) and references to internal factors (personal experience, motivations, own study, prior teaching). The nodes for coding were established in 4 main groups of topics: linguistic features (rhetorical questions, addressing the reader, impersonal style and first-person retelling), topics raised (problems in teaching, diversity in class, evaluation of one's effectiveness, harm to students, teacher demotivation), personal aspects and feelings (personality features, experience, motivation, opinion, satisfaction, development and surprise, own life) as well as referents to own learning, own teaching, practicum, mentor, future teaching, parents, curriculum, teachers in general as well as teacher research (without subdivision). The groups of nodes, the number of files and referents as well as the length of coded utterances can be found in Table 1 below.

Table 1. Data for coded nodes in a teacher corpus

<b>1. topics raised</b>	<b>Number of files</b>	<b>Number of references</b>	<b>Number of words coded</b>
difficulties in teaching	20	27	887
diversity in class	3	4	98
evaluation of one's effectiveness	26	37	1,805
harm to students	1	2	49
teacher demotivation and discouragement	2	2	40
<b>2. linguistic devices</b>			
first person retelling	84	157	2,387
impersonal reference	11	11	3,726
rhetorical questions	19	24	542
addressing the reader	48	80	2,514
<b>3. internal factors</b>			
own personality features	3	3	96
personal experience	20	24	851
personal motivation	53	69	2,649
personal opinion	63	2,704	
personal satisfaction	13	15	709
personal development	25	29	979
personal surprise	4	4	142
reference to own life	3	4	219
reference to future teaching	28	31	1,014
reference to own learning	9	10	716
reference to prior teaching	25	35	1,321
<b>4. external factors</b>			
reference to mentor teacher	40	49	2,667
reference to curriculum	3	3	104
reference to parents	2	2	49
reference to practicum	70	104	4,129
reference to sources	29	49	2,922

reference to teachers in general	18	21	740
<b>5. teacher research</b>			
reference to own research	85	135	6,239
<b>6. others</b>			
unclassified	4	4	585

Source: Author's own elaboration.

The analysis of the data in Table 1 enables making a number of highly interesting observations:

1) Even though both pieces of text were supposed to be devoted to sketching out and evaluating one's research, it is in only 85 texts (out of 166) with 135 references that a reference to research can actually be found. Apparently, many teacher practitioners might be viewing their research undertakings as a part of everyday practice and might not be thinking in terms of experimentation.

2) Practice exerts a much greater influence on teacher researchers than curriculum (only 3 texts with 3 references) or previously published sources (29/49). Teacher research process is mostly shaped by experiences from the practicum (70/104), contacts with mentors (40/49), prior teaching (25/35) and expectations of future teaching (28/31). The significance of personal experience for teacher research is also quite prominent in many texts (20/24).

3) The research projects were strongly rooted in practice, however, it is quite strange that only 3 out of 83 authors made references to the curriculum (either the Core Curriculum or specific subject curriculum). Instead, more references to classroom difficulties, diversity in class, student demotivation could be found as reasons for undertaking teacher research.

4) In terms of topics raised, the most interesting issue to analyse was to what extent research projects will actually contain evalu-

ations of teacher research undertakings. Quite surprisingly, it was only in 26 texts (out of the total number of 83 thesis discussion samples) that the aspect of evaluation of the research process appeared. It is quite clear that the majority of teacher researchers do not try to think 'big', considering their research undertakings as a way of improving pedagogical practice in general. Instead, they see personal gains from the research process (95/117), which is indicated in quite a few expressions of personal development (25/29), personal satisfaction (13/15), personal surprise (4/4) and personal motivation (53/69). This is also seen in relatively few conclusions pertaining to teachers in general (18 texts out of 83 with only 21 references).

5) Linguistically, teacher researchers used a highly personal style, with relatively frequent addresses to the reader (48 texts/80 references/2,514 number of words in total) and rhetorical questions (19/24/542). A great number of texts featured first-person research report rather than impersonal style, which could be expected given the emotional attachment of teachers to their pedagogical innovation and a strong sense of ownership of invented activities and proposed ideas. In a great number of cases points made by teachers are forcefully expressed and given additional emphasis.

6) As was predicted, the thesis samples subjected to analysis did reflect teacher language as it is mainly used in the classroom. Since the writers did little reading of methodology sources (if any at all), they could not acquire more sophisticated structures characteristic for describing classroom processes and research in the written mode. Instead, their writing samples exhibited a great deal of interference from Polish, with a predominance of syntactic and lexical calques, concord problems, syntactic omission (of subject), categorical errors, articles omission and word formation errors. In this way, the present research confirmed the categories of errors isolated as characteristic

of Polish learners of English by Zybert (1999), with translation being clearly one of the major ways of finding their voice in English.

7) When considering teacher-as-researcher reflections in the framework of Taggart and Wilson's (2005) reflectivity pyramid, it is quite evident that their reflections were located mainly at the lowest, technical, level (achieving desired outcomes) and much less on the second, contextual, level (finding alternatives to promote improvement). Very few references to teachers in general and overall few references to research might indicate that the third, highest, level of reflectivity, namely dialectical level, was rather far from achieving by a predominance of teacher researchers. The dialectical level, with its critical reflection and analysis of the rationale behind actions, evaluating theories and questioning experiences within a broader lens puts teacher researchers in a position to generalise their outcomes into theories and question the effects of the outcomes in a wider social perspective.

## Conclusion

To sum up, the present research confirmed the initial assumption that teacher-as-researcher persona will be construed mostly in a personal manner, using first-person voice, with a great amount of references to personal experience, one's own learning and teaching. Quite predictably, the research writing samples of practising teachers exhibit features of classroom communication on the one hand and typical errors of Polish learners of English on the other. Moreover, the impact of practicum and mentor teacher was much more prominent than that of external sources or previous research.

At the same time, quite a number of participants decided to tone down the conclusions of their research, did not conclude about the effectiveness of their mini-studies, without even making references to

research as such. Apparently, pedagogical innovation is for language teachers a regular part of their daily experience and they do not see a need to generalise about what they do to refer to a wider public.

While the procedures employed in the current study do have certain limitations (most notably, the subjectivity involved in coding and interpreting qualitative data and the fuzziness of coding categories), the current study showed the usefulness of utilising both quantitative and qualitative procedures in investigating teacher-as-researcher language. Future studies might probe the area of teacher-as-researcher persona even further, most importantly, investigating how research communication by teachers changes under the influence of systematic academic writing instruction.

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Appendix. Teacher research paradoxes (Charest, B. (2019). Navigating the shores: Troubling notions of the teacher as researcher. *International Journal of Critical Pedagogy*, 10(2), 19–44).

1. We say we value creativity and innovation while also making appeals to traditions that insist there is a “right” way to do or know things.
2. We see academic research as more valid than experiential, community, or home learning, but also say that we want students to feel that their home and community cultures are valued in school (That is, we don’t often allow students to connect these spaces through guided or sustained inquiry).
3. We say that we value different learning styles, but we don’t often provide opportunities for students to demonstrate their learning in alternative ways—we mostly stick to teaching academic argument or academic ways of knowing and doing.
4. We say we value diversity, but we are inclined only to allow for diverse ways of knowing, learning, doing, or being that can be contained within the existing framework of what we call school.
5. We say we value democracy and choice, but there is very little democracy or choice in practice or in the production of knowledges in these institutions.

6. We present scientific knowledge as “truth” but often fail to acknowledge the limitations of this knowledge to answer deeper questions about human existence and spirituality.

7. We say that we all learn at different rates and in different contexts, but we structure many of our learning environments around the opposite premise.

8. We say that we value student and teacher voices, but often we do not provide time or space for teachers and students to examine how our voices are shaped, how they may perpetuate colonial practices, or how they might point toward different ways of knowing, doing, and being.