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Preface

This journal came out for the first time in 2015. It was founded on our belief that although Poland has a strong presence among second language acquisition and multilinguality researchers, which is demonstrated by the large number of conferences and also book publications appearing every year, academic journals like this one, concerned with both theoretical issues and the practical concerns of SLA, are not that numerous. The initial success of the journal is demonstrated by the fact that despite its short life, it is already indexed in several databases and made its first appearance in Scopus in 2018. Thanks to this, it is also recognized by the Polish Ministry of Higher Education as a scholarly journal in linguistics. It is of importance that the *Theory and Practice of Second Language Acquisition* journal is published by the prestigious Polish academic publisher, Wydawnictwo Uniwersytetu Śląskiego (University of Silesia Press). We can also ascribe the origins of our journal to the success of the International Conference on Second/Foreign Language Acquisition (ICFSLA), an academic event that has been organized for over thirty years by the Institute of English at the University of Silesia in Katowice (the Institute of Linguistics since 2020). ICFSLA regularly brings together many Polish and foreign academics every May. Its focus is on new trends in SLA research, but it also prides itself on promoting fairly under-researched and new issues in SLA. Although the conference always has a leading theme, scholars are also invited to present their research even if it falls outside the scope of the main topic. Our journal has become an accepted channel for the publication of selected conference papers of a high academic standard. At the same time, we warmly welcome other contributions, those not connected with the conference itself. In fact, in recent issues most publications were submitted by authors who did not participate in the conference, mainly because in 2020 it had to be cancelled due to the COVID-19 pandemic. In addition to theoretical and research-related papers, we also accept for inclusion in each volume reviews of academic books recently

published in Poland and abroad, which would be of interest to our readers. It is additionally an important vehicle for promoting SLA research carried out by Polish academics and published by Polish publishers, who maintain high academic standards, but whose work is not easily accessible abroad and so tends not to reach a wider academic audience. The whole process of paper submission is automated via an Open Journal System (OJS) and this embraces the article submission, referee assignment, and double blind-review processes as well as the revision, copyediting, and production stages. The production process is in the hands of a team of experienced professionals from the University of Silesia Press, who do their best to make the whole procedure smooth and effective. All the issues of our journal are available free via the OJS for reading and pdf download. The open access policy allows for the availability of the most recent research in the field at zero cost, thus presenting the articles published in its issues to global readerships.

We strongly believe that our journal serves an important need in disseminating new and interesting research projects and studies in SLA of both Polish and foreign scholars in the field. There has been a palpable increase in submissions from all over the world, which is reflected in contributions to the most recent volumes. The journal is published bi-annually and contributions can be uploaded by prospective authors continuously, without any calls for paper. The selection of articles and book reviews for the upcoming volumes is done on the basis of acceptance of the text on completion of the process of reviewing and revising. As mentioned earlier, each text is peer-reviewed in a double-blind reviewing process by referees selected by us from the Editorial Board, but also by other specialists when needed. The Editorial Board itself consists of Polish scholars and foreign experts in the area and represents the wide range of research interests of its members. All updated information on the journal is available on the journal webpage at www.tapsla.us.edu.pl.

The present issue consists of texts which do not share any clear-cut common denominator—they represent various themes and different points on the scale between the theoretical and the applied, although the first two are much broader in the scope of systemic solutions which they propose than the remaining four. The first paper, by Maria Villalobos-Buehner, titled "A Habermasian Approach to the Examination of Language Teachers' Cognitive Interests," reports on a very interesting qualitative study of nine pre-service teachers of ESL, focusing on their beliefs and interests related to language teaching and learning. This kind of perspective fills the gap in the overall picture of young pre-service teachers' readiness for taking up the profession, since most studies concentrate on their conceptual knowledge and familiarity with recent methods, neglecting the important attitudinal dimension. The study follows Jürgen Habermas's theory on cognitive interests as a framework and reflexive essays followed by authentic assessment as data collection tools.

The following paper, contributed by Hanna Komorowska, takes a much broader and systemic perspective, as suggested by its title "The Role of Attention in Teacher Education: A Factor in the Quality of European Schooling." The author reflects upon plausible reasons for the observable lack of correspondence between the level of effort invested by leading international institutions in the improvement of educational systems and the results visible in their reports. In the author's opinion, too much emphasis is placed on organizational matters, to the disadvantage of psychological factors. The key variable seems to be learners' attention, or to be more precise, its deficit and problems with sustaining it. In the contemporary world of information overload, overstimulation and ubiquity of distractors, significantly more consideration should be devoted to ways of arousing and maintaining learners' attention throughout the lesson.

The paper by Çağrı Tuğrul Mart entitled "Integrating Form and Content within Classroom Discussion of Literature" narrows down the focus to the long-standing dispute between the supporters of form-focused instruction and the devotees of content-based teaching. The author proposes a golden mean allowing for reconciliation of the potentially conflicting approaches and for making the best of the advantages of both. The integrating environment is proposed in the form of literature-based classes, which allow for the combination of meaningful language practice with contextualized exposure to frequently applied formal patterns. The author's recommendations find validation in the results of a small-scale experimental study reported in the paper.

The type and role of feedback is taken up in the following paper, by Meihua Liu, titled "Focus and Effects of Peer and Machine Feedback on Chinese University EFL Learners' Revisions of English Argumentative Essays." Rather than recommending one at the cost of the other, the author highlights the advantages of both and points to the areas where each of them might provide useful information for learners, allowing them to improve their written performance in English as a Foreign Language. The quantitative findings were further confronted with the answers gathered by means of more qualitative data collection tools, such as questionnaires and interviews, allowing for inclusion of the learners' perspective in the overall results reported in the paper.

Electronic media of communication are the focal point of the next paper, submitted by Daria Pańka, "Polish-English Code-Switching in the Language of Polish Facebook Users." The author sees Facebook (and social media in general) as an environment in which advanced learners of English can practice their L2 skills, even though their profiles are based in Poland. The English language is seen here as an additional resource providing users with a more varied means of communication, a display of in-group membership and an inventive application of humor. On the basis of self-accumulated language material, the author identifies the main types and strategies of code-switching, juxtaposing her findings with the results of other studies of forms of code-switching involving English on Facebook.

The final research paper in the present issue, "Jordanian University Students' Awareness of the Different Phonetic Alternates of the English Plural Morpheme," is authored by Hana Asaad Daana and Qadri Farid Tayeh. The contributors demonstrate the positive impact of exposure to English for the students' L2 competence and performance, during their study period at the Princess Alia University College at Al-Balqa Applied University in Amman. The strength of L1 transfer was additionally shown to decrease as the students progressed in their English language proficiency.

The present issue continues the tradition of presenting two reviews of very recent book publications in SLA. The first one, *Teacher Wellbeing* (2020), authored by two very well-known experts on applications of positive psychology in language teaching and learning, Sarah Mercer and Tammy Gregersen, is reviewed by Danuta Gabryś-Barker. This recent publication is a resource book for language teachers who appreciate the significance of emotions and good relationships in the process of language learning and teaching, that is, those who hold a more open vision of education, catering for the whole person and not just the target skills. The second volume, reviewed by Anna Mystkowska-Wiertelak, takes the reader on a reflexive trip through the territory of motivation in language learning. The publication in question is *Contemporary Language Motivation Theory. 60 Years since Gardner and Lambert (1959)*, an anthology edited by Ali H. Al-Hoorie and Peter MacIntyre (2020). It contains numerous contributions by followers of Gardner and Lambert's seminal work, attesting to the significance and influence of the social psychological framework proposed by the original authors for the study of language learning.

We sincerely hope that readers will find the present issue of interest and value for their own research in the field of second language acquisition, foreign language teaching and learning. At the same time, we would also like to ask Polish and foreign academics to keep supporting the journal by sharing their scholarly research with us, by submitting their original work and book reviews of recent high level publications for upcoming volumes.

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Articles

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A Habermasian Approach to the Examination of Language Teachers' Cognitive Interests

Abstract

Language teacher educators train pre-service teachers in numerous theories and pedagogical practices of language learning and language teaching. They expect that their student teachers will translate this conceptual and practical knowledge into action during their practicum. However, in the process of determining pre-service teachers' readiness for the field experience and the profession in general, methods classes measure only their conceptual knowledge and omit looking at their student teachers' belief system about language teaching and learning. This belief system is a strong indicator of how the students organize their knowledge for application (Borg, 2003) and may help teacher educators gauge students' read ness in the use of new pedagogies that these pre-service teachers may not have experienced before. Using two reflective essays and a piece of authentic assessment as instruments to gather data, as well as Jürgen Habermas's theory on cognitive interests as a framework to explore the espoused beliefs of nine pre-service language teachers at the end of a methods course, this qualitative study addressed the following questions: What levels of cognitive interests do the nine pre-service world language and ESL teachers exhibit prior to student teaching? To what extent do the students' levels of cognitive interests change during the methods course called Teaching a Second Language? What are the most common cognitive interests regarding such areas of teaching performance, such as methodology and assessment among the participants? The results show that the nine pre-service teachers held mostly technical and some practical cognitive interests at the beginning of the semester. In the end, most of the participants held practical interests, and three out of the nine pre-service teachers held elementary emancipatory beliefs. One pedagogical recommendation is to include experiences in the training of pre-service teachers that promote emancipatory beliefs that could support teachers in their pursuit of transforming challenging social conditions while examining and adopting new pedagogies.

Keywords: pre-service language teachers, cognitive interests, technical interests, practical interests, emancipatory interests, Habermas

Introduction

Methods courses play a pivotal role in the development of a teacher. They provide the foundational work that would assist the students in applying the theory to real academic contexts. Most of these methods courses use case studies, lesson plans, micro-teaching sessions, and formal paper-and-pencil exams to gain a perspective about their pre-service teachers' level of preparedness for their field experience and the profession in general. Even though these evaluations could help determine their level of understanding of concepts, teacher educators soon find that once in the field, pre-service teachers have a hard time using this theoretical knowledge to act on either a typical or challenging practice situation. Therefore, it is imperative that teacher educators examine not only pre-service language teachers' conceptual and practical knowledge but also their beliefs in order to help determine their level of preparedness prior to student teaching. As Varghese et al. (2005) said,

> In order to understand language teaching and learning we need to understand teachers; and in order to understand teachers, we need to have a clearer sense of who they are; the professional, cultural, political, and individual identities, which they claim or which are assigned to them. (p. 22)

The main goal of this study was to determine the cognitive interests, conceptual knowledge, and espoused beliefs about language teaching and learning of nine pre-service teachers in order to gain knowledge about their different levels of pedagogical preparation and beliefs prior to their student teaching experience. This study applied the theoretical framework of Habermas's cognitive interests to three sources of data (two reflective papers and a piece of authentic assessment) to answer the following questions:

1. What levels of cognitive interests do the nine world-language and ESL pre-service teachers exhibit prior to student teaching?
2. Which cognitive interests regarding such areas of teaching performance, such as methodology and assessment, are most common among the participants?
3. To what extent do the students' levels of cognitive interests change, if at all, during the methods course called Teaching a Second Language?

Literature Review

Language Teacher Cognitions

The meaning of the term *teacher cognition* in this paper relates to the teacher's knowledge of theory and pedagogy and their personal theories and beliefs about teaching (Borg, 2003). In the last two decades, various authors have published several reviews and studies about experienced and novice language teachers' cognition (Basturkmen, 2012; Borg, 2003; Burns, Edwards, & Freeman, 2015; Gabryś-Barker, 2012; Golombek & Johnson, 2017; Mann, 2005; Wright, 2010). One of the three themes addressed in Borg's review of the studies done from 1989 to 2000 was cognition and teacher education. He found out that, according to the mainstream research, student teachers develop in diverse ways. Therefore, in order to comprehend the scope of the impact of teacher training programs on student teachers, one should focus on individual cases. Another key theme in his review was that a change in behavior as a result of teacher education does not imply a change in cognition and vice versa. Borg also discovered that future language teachers at the beginning of their studies show distorted or immature understandings of teaching and learning (Brookhart & Freeman, 1992; Brown & McGannon, 1998; Cumming, 1989). According to Borg's review, Brookhart and Freeman (1992) found two recurrent future teachers' misunderstandings in their study: that languages were learned by imitation and that errors were caused by L1 interference. A recent study on pre-service teachers' beliefs (Debreli, 2016) reported that the majority of the 16 pre-service teachers from Cyprus trusted the methods presented as effective in a teacher education program. These methods were also the main influential factors in shaping their beliefs.

Basturkumen's (2012) review showed that most of the studies reported a "limited correspondence" between experienced teachers' espoused beliefs and their classroom practices. Those studies also supported the influence of the context and teachers' years of experience in terms of facilitating or restricting the execution of teachers' beliefs. These groups of studies determined that the beliefs of experienced teachers were more evident in their pedagogical choices and behaviors than those beliefs from novice teachers. Only two dissertation studies from Basturkurmen's review reported results related to pre-service teacher beliefs. Sinprajakpol's (2004) research found limited correspondence between pre-service teachers' beliefs about language teaching and learning approaches and their classroom practices; Vibulpol's (2004), on the other hand, found correspondence between the teachers' beliefs about their own language skills and the importance of grammar in their choice of approaches in the classroom. Despite the disagreement between Sinprajakpol's (2004) and Vibulpol's (2004) results, it is clear that pre-service language teachers' beliefs are mostly

influenced by their experiences as students and by emergent understandings of what are considered good practices in the field.

Gabryś-Barker's (2012) qualitative study about the beliefs of a group of pre-service teachers about language teaching shows that teachers' earlier experiences as language students play a pivotal role in the shaping of their beliefs about teaching. These trainees, as the study describes them, perceive teachers as experts, sharers of knowledge, and ones with a clear mission. The participants' perceptions of their future roles as teachers "implies the need for a teacher's active involvement: both professional and personal, creativity and responsibility and also the courage to be different and the need to go on trying, irrespective of failures and obstacles" (48). Burns, Edwards, and Freeman (2015) summarized the main ontological approaches used from 1990 to 2014 by a group of studies (Crookes, 2010; Freeman & Johnson, 1996; Kubanyiova, 2012) and their goal to understand the mind of the language teacher. The bulk of this research highlights the importance of understanding the pre-service teachers' values, beliefs, and histories as learners if teacher programs want to be effective in their goal to not only shape but also to transform teachers' practices. Hennisen, Beckers, and Moerkerke (2017) studied the effectiveness of a curriculum in helping 136 pre-service teachers link theory with practice. The results showed growth in their knowledge and new schema formations after the pre-service teachers participated in a curriculum designed using an inductive approach that includes in-the-field experiences, post-experience reflections, and pre-service teachers' concerns. Most of the studies above have used teachers' narrative inquiry in their study design as a "systematic exploration that is conducted by teachers and for teachers through their own stories and language" (Johnson & Golombek, 2002, p. 6). This study will contribute to this body of research by expanding the field's understanding of pre-service cognitive interests by offering a theoretical framework to help shape our understanding of pre-service language teachers. A Habermasian lens helps to capture the complexity and dynamic nature of cognitive beliefs by being able to explore emancipatory ways of thinking about language-learning practices.

Cognitive Interest Framework

Jürgen Habermas's (1971) theory of cognitive interests offers a framework for looking at diverse knowledge, beliefs, and dispositions in order to gain a wider perspective on pre-service teachers' cognitive interests. This framework not only explores specific orientations in conceptual knowledge, but it also looks at people's interests in connecting with a community and explores issues of power. The two latter foci allow a framing of our understanding of student teachers' belief systems from a socio-critical perspective much needed

during these times, when language classes are being cut and second language requirements are either being substituted with other content areas, such as coding, or simply eliminated. Therefore, teachers need to develop a critical lens to understand their own precepts and those of the community in order to become strong advocates for the profession. Furthermore, this theory of cognitive interests helps to capture the complexity and dynamic nature of pre-service language teachers' tenets.

Habermas (1971) stated that people function in a combination of domains based on specific orientations in their beliefs. These *domains of human activity* are classified into three cognitive interest domains:

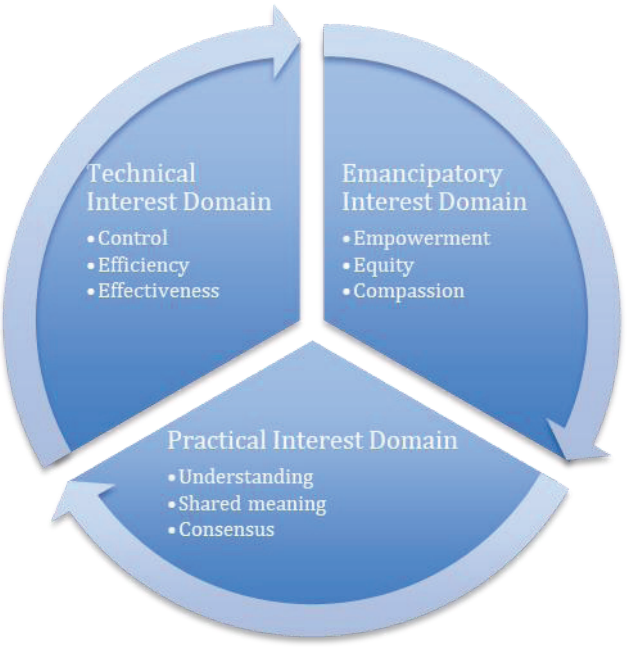

Figure 1. Domains of Human Interests (Habermas, 1971)

Teachers functioning at a technical-interest level focus on the desire to control their professional environment by following pre-established precepts (Scott, 1997) to meet specific academic needs. The focus is "on efficiency and effectiveness" (Geelan, 2001, p. 7). Language educators performing at this level might focus on translations, the memorization of vocabulary lists, and grammar lessons that emphasize repetition and error correction. Teachers aim at controlling discrete chunks of information (Edgar, 2006).

Teachers functioning at a practical-interest level emphasize the importance of understanding the environment and the society around them. They work on developing "interpersonal rapports, understanding, and consensus that facilitate

positive change for their students" (Kondrat, 1995, p. 409). These teachers look for an understanding of the other and the self (Kondrat, 1995). Language teachers functioning at this level would plan around the students' interests. The goals of communication and cultural understanding would be at the center of their pedagogical decisions (Edgar, 2006).

Finally, teachers operating at an emancipatory level identify issues of power in the classroom and school contexts. They focus on a pedagogy that emphasizes compassion and underscores equity and empowerment for their students and the school community. Language teachers would foster a caring classroom culture where all the participants' voices would have a fair chance to be heard (Edgar, 2006). These teachers would engage in self-reflection (Scott, 1997) and in advocacy efforts for the profession. They would also design lesson plans based on principles of social justice and that would benefit the community (Kondrat, 1995). It is important to highlight that these domains are neither linear nor in hierarchical order. It is advisable that teachers operate in all the domains (Ring, 2014), with one or two domains being more prominent than others.

The profession of social work encourages the inclusion of Habermas's framework to redesign curricula that would address current challenges in the field. For instance, Kondrat (1995) affirmed that incorporating Habermas's domains in the training of social workers would help determine trainees' particular orientations for actions and possible sources of practitioner errors. Ring (2014) argued that a curriculum based on Habermas's domains of cognitive interests would better train social workers in England to deal with an aging population and difficult financial times for social welfare systems. This framework offers an empowerment perspective that is needed in the profession to aid ESL, bilingual, and world-language teachers in their pursuit to transform challenging social conditions "to be more inclusive of diverse and less powerful voices" (Kondrat, 1995, p. 420). Language-teacher education should not only focus on the development of pedagogical skills but also on the development of an educator who could question and transform the implementation of policies that could compromise the future of language learning.

In the process of reviewing the literature, the researcher found studies related to cognitive interests in the field of education. Butler's (1997) thesis looked at the differences in Habermas's cognitive interests between students and their teacher and the impact of these differences on students' performance in three different courses for the adult community. Butler found that students with cognitive interests matching their teacher's performed better than those with different cognitive interests. Scott (1997) examined the beliefs of three college teacher assistants about the teaching and learning of educational technology. His study found that even though the assistants espoused interests in the practical domain, their actions in the actual classroom reflected their interests in the technical domain. This finding correlates with Basturkumen's (2012) review.

This research will be the first qualitative study in the area of language-learning education that has used Habermas's domains as a framework to understand pre-service language teachers' cognitive interests. This study aims to expand this area of research by offering a theoretical framework that helps frame our understanding of language teachers' cognitive development beyond the descriptive accounts of teachers' beliefs so needed in our field (Kubanyova, 2012).

Methods

Participants

A convenience sample of nine pre-service teachers agreed to take part in this study. They were all women between the ages of 20 and 40 who were taking a methods course in language teaching during the data collection stage of this study. Three of these participants were pursuing initial certification in ESL; six were pursuing initial certification in world-language education. Five were undergraduate students, and four were in the post-baccalaureate education program. The following Table 1 provides a complete list of the participants.

Table 1

Participants

Name	Age	Certification	U	P	L1	L2	Professional experience
Gab	20	ESL	X		English	Italian	N/A
Kit	20	ESL	X		English and Spanish	French	N/A
Sam	20	Spanish/ESL	X		English	Spanish	N/A
Vic	20	Spanish/ESL	X		English	Spanish and German	N/A
Mer	36	Spanish	X		Spanish	English	Worked in banking
Ele	25	ESL		X	English	Greek	Worked from home—family business
Kel	25	Spanish		X	English	Spanish	N/A
Jan	40	French		X	English	French	Homemaker
Adi	35	French		X	French	English and German	Homemaker

Notes: U = Undergrad P = Post-baccalaureate

Procedures and Data Analysis

The researcher collected the data at three different points during the semester while the participants took a methods course called Teaching a Second Language. Table 2 shows the data collection timeline.

Table 2

Data collection

Data collection point	Data collection tool	Data collection focus
First week of classes	Reflective paper (Appendix A)	Participants were asked to consider past language-learning experiences to gain a perspective on their beliefs about language learning prior to starting the methods course.
Ninth week of classes	Philosophy of teaching paper (Appendix B)	Participants were asked to reflect on their beliefs about effective language-teaching practices.
Thirteenth week of classes	Authentic assessment—mock job interview (Appendix C)	Participants were asked to discuss their beliefs about language learning environments, students' learning styles, teachers' classroom management skills, and teachers' advocacy efforts.

The first collection point took place during the first week of classes, and the instrument was a three-page reflective essay about their experiences as language students in high school. The participants wrote about their teachers' pedagogical choices in relation to class activities, class content, what made teachers "good," and the characteristics associated with poor teachers. The second data-collection point took place during the ninth week of classes. The instrument was a three-page teaching-philosophy essay. The participants wrote about their beliefs regarding effective practices in foreign language instruction in the areas of classroom environments, teachers' methods, learners' learning experiences, and the role of assessment in the language classroom. The third data-collection point took place at the end of a 13-week course. The instrument used was a type of authentic assessment that helped students demonstrate what it means to be an effective language teacher in a real-life situation that would bring theory and practice together. This assessment combined three elements of Angelo and Cross's (1993) Classroom Assessment Techniques (CAT): an annotated portfolio, invented dialogues, and exam evaluations. This authentic assessment asked the students to prepare for a final oral exam in the form of a job interview. Students received an authentic job ad according to their educa-

tion major (ESL, French, or Spanish). Afterwards, they had to prepare for this interview by putting together a teaching portfolio with material developed during the course by visiting the school's job-listings website and preparing a list of possible questions. They were asked five more questions that were not part of the list. The answers to these questions were used as data for this study. Each student received a time slot of 20 minutes to complete this interview. The interviews were videotaped, and the answers to the five undisclosed questions were transcribed.

Each answer during the job interview and the two essays was iteratively, inductively, and deductively coded according to themes that revealed conceptual knowledge and espoused beliefs in the areas of classroom management, planning, assessment, and students' and teachers' roles. Following Bernard and Ryan's (2010) transcription protocol during the inductive coding process, the raw data were read and reread in order to familiarize the researchers with the participants' answers and to facilitate the creation of the categories listed above. Those cognitive orientations were then deductively coded, since the researcher brought a conceptual lens *a priori* to the analysis of the data. A matrix of analyses was created according to Habermas's three types of cognitive interests—technical, practical, and emancipatory—in combination with the five pedagogical areas listed above. Next, the researcher and an aide compared each of the students' answers and classified them according to the definitions of the three cognitive interests and five pedagogical areas in this matrix. Finally, the researcher and second reader used this matrix to find out the frequency or different levels of saliency in which each of the cognitive levels stood out in the students' narrative.

Results

This research looked at the participants' most common cognitive interests and classified them into five areas of teaching performance: classroom management, planning, assessment, and students' and teachers' roles. This study also focused on finding the levels of cognitive interests in which nine pre-service world-language and ESL students operate prior to student teaching, and whether these interest levels change during the methods course called Teaching a Second Language.

Cognitive Interest Domains and Areas of Teaching Performance

This study organized the data into five teaching performance indicators to find out what the participants' most common beliefs were in each area of teaching performance according to Habermas's levels of cognitive interests. The areas were classroom management, student role, teacher role, pedagogical method, and assessment.

Technical cognitive interest domain. The study participants believed that having an organized plan, clear rules, a reward system, and good time management were indicators of having good classroom management skills. During the job interview, Adi highlighted the need to provide structure to teenage students in order to enhance their learning experience:

> Teenagers—they need some structure. So they need to know, that when they come to my class, there's a certain structure to the lesson. So uh, [in] each class there will be three parts: the introduction, the procedures part with the main activity or activities, and the closure part. (Adi)

The participants who held beliefs at the technical level described student and teacher roles in simplistic ways that painted a fixed idea of both roles. One of the most commonly held beliefs was that teachers were always in charge and that one important task was to motivate their students and attend to their needs. These participants used the pronouns *I*, *my*, and *they* when describing language teachers' and students' roles in the classroom, which indicates a hard-line division of roles:

> For my middle school classes, I wish to instill the values that I find more important and valuable in life. (Sam)

> The role of instruction is to break down the material in a fashion where they will comprehend it easily and be able to have it and use it in their lives. Also, this role is something that should be taken seriously; if the instructor is not willing to help the students and break down the material to help them understand, then there is no simple way for the students to comprehend and learn this language. (Gab)

The most commonly held beliefs in the area of methodology emphasized the memorization of vocabulary, the importance of teaching grammar, and following the main textbook:

> It is imperative that students receive extensive practice with the language basics. They will master letters, numbers, greetings, adjectives, simple verbs and conjugations, phrases and sentences. (Kel)

Beliefs about assessment at this technical level emphasized it as a way to monitor and control students' learning as well as their role in reviewing material. Those beliefs also expressed the role of accountability for the student:

> I plan to teach my students "Standardized Testing" for reading and writing as a genre, just like I would teach poetry as a genre. When you think about it, there is a specific way you analyze and answer questions about standardized texts, just like there is a specific way to read and evaluate poetry. Summative assessments leave little room for error, but they help me as a teacher evaluate class understanding, and they help my students evaluate their own learning. (Sam)

Practical cognitive interest domain. The most commonly held beliefs about language classroom management, at the practical level, were the need to offer language immersion experiences and the use of teams or groups to help develop communicative language skills and the necessary student support. The role of the student and teacher was mainly that of negotiators of meaning. Students are perceived as unique, autonomous, and having a diverse set of needs. The teacher is passionate, open to new ideas, creative, and offers students support at all times. The main pedagogical method supports the exchange of meaning, uses authentic texts, and provides students with rich input. There is an emphasis on experiencing the language at a personal and intimate level:

> I believe that students will remember what they learn better if they are able to make sense of the information themselves, often in working with teammates. (Adi)

> So I would be very interested to see if there [were] certain things that we could look at in terms of the cultural unit that we could teach through the medium of French. So, when we're talking about French culture, rather than talk about it in English, let's talk about it in French. (Jan)

Assessment, at this cognitive level, would help the teachers modify and adjust their pedagogies and motivate students' growth in their language skills. Mistakes are considered necessary for learning:

> I want my students to understand that we are all in this learning process together. Formative assessments will help me build up my understanding

> of how students are learning and assimilating the language. They will help me adapt my instruction to better suit the needs of my students and to maximize their learning potential. (Jan)

Emancipatory cognitive interest domain. The participants' beliefs at this level emphasized the importance of fostering an inclusive and welcoming classroom that respected differences, and providing a safe space free of fear tactics that would support students' growth and curiosity and respect their unique identities. The role of the teacher is to be passionate, positive, and fully committed to their students' success:

> The student-centered approach allows for many teachable moments as students become highly engaged with the content. Once they make relevant connections to their own lives, the students then take ownership of their education. (Vic)

> I will discover their cultures by allowing the students to feel comfortable enough to share their cultures in class, and then creating projects and assignments based on their cultures to create inclusivity and understanding of other cultures. . . . All I wish to do with my students is to teach them to be ready for the world while learning to be better people in a comfortable, fun environment we create together. (Kim)

There were no clear beliefs in the areas of methods and assessment at this level.

Operational Cognitive Domains

The data showed that the nine pre-service teachers functioned mainly at the technical and practical domains during the semester (see Table 2). They also operated at different levels of cognitive interests with different levels of saliency, which supports what Borg (2003) stated about teachers developing in unique ways. One cognitive level was more salient than the other at different points in the semester. Those students who started the semester functioning at a technical domain started functioning at a technical and practical level at mid-semester and at the end of the semester. Those students who started functioning at a practical domain did not experience any change, and very few started to function at the emancipatory domain toward the end.

Table 3

Students' Cognitiv Interest Domains

Time	Beginning of the semester			Middle of the semester			End of the semester		
Name	T	P	E	T	P	E	T	P	E
Adi									
Ele									
Gab									
Kel									
Kit									
Vic									
Jan									
Mer									
Sam									

Notes: T = Technical; P = Practical; E = Emancipatory.

Salient	Somewhat salient	Not salient

The saliency of cognitive interests. The study participants held cognitive beliefs that exemplified mostly the technical and practical levels. Most of those operating at the technical level emphasized the need for efficiency, effectiveness, and the teacher's control of the classroom. Sam, for instance, believed that the use of multicultural posters would make her classroom more diverse and student-friendly. She also considered grammar essential in developing the literacy process of her students:

> To develop cultural sensitivity in my classroom, I will fill my classroom walls with multicultural posters. This will not only expose my students to these different cultures, but it will also allow my students who experience these cultures feel more comfortable with their surroundings. I will utilize grammar activities when [they correlate] with my lessons as well as when my students are having difficulty with it. It is important to provide my students with an academic level of literacy rather than simply a conversational level. (Sam)

Those operating at a practical level highlighted the importance of providing immersion opportunities for their students so they could develop strong communicative skills in the target language:

> A teacher should make it a priority to speak in the target language as much as possible in the classroom, not only during communicative activities but also during explanations, as students can learn from these exchanges too. In doing so, students can realize that the target language is more than the object of study, it is a vehicle for communication. (Adi)

Gab was the only participant who held some emancipatory beliefs at the beginning of the semester, and these beliefs became more salient later in the semester, during the final interview. Gab said, "The concept of teaching a foreign language is something that has to be done with compassion. This compassion will help the students be unafraid of not knowing the language and have the will to further their knowledge with the language."

The subjects also exhibited different levels of saliency in their beliefs. However, one level was constantly more salient than the other two. For instance, Ele stated that she wanted her students to accomplish growth in the technical aspects of the languages and also have the drive to continue learning English on their own. Even though Ele was interested in how students feel in the language-learning process, which is an example of someone working at a practical level, she believed that the way students feel is her responsibility. She also focused on the importance of developing students' linguistic knowledge. Her statement is an example of someone working mostly at a technical level of cognitive interest:

> The skills my students will master will include: to be brave and confident when speaking English or trying to learn, various ways to use their vocabulary to create sentences and then eventually form paragraphs, and to constantly learn and improve their English language proficiency. I want my students to have a drive to continue learning English on their own outside of the classroom. (Ele)

Jan's position about the use of authentic material in the classroom is an example of someone operating at a practical level of cognitive interest. She not only highlights the importance of developing multi-literate skills for the students by using different sources, but she also points out that relying only on textbook material is not desirable:

> Students need to be exposed to the target language in a real setting through a variety of texts—not just the standard textbook but also newspaper and

> magazine articles, blogs, websites, radio, TV, films, and advertisements. We live in a multi-literate world and we need to ensure that our students are able to communicate effectively in the same way. (Jan)

Changes in the saliency of the students' cognitive belief system. The group experienced two common saliency changes from a technical interest level to a practical level, and more than half started exhibiting some type of saliency in emancipatory interests either by mid-semester or toward the end of the semester. For instance, besides holding beliefs at the technical and practical levels, Vic started to operate at an emancipatory level mid-semester and toward the end of the semester. Vic's teaching philosophy emphasized the importance of students becoming the owners of their own learning process and feeling empowered:

> The student-centered approach allows for many teachable moments as students become highly engaged with the content. Once they make relevant connections to their own lives, the students then take ownership of their education. My classroom approach is definitely student-centered, with guidance when necessary. This approach fosters students' critical thinking skills through the use of daily informal assessment in order for them to become self-sufficient learners. (Vic)

Six participants experienced different saliency levels of cognitive interests in their belief system during the semester, and three of the participants' belief system remained constant. Gab, Ele, Kel, and Adi held strong technical beliefs about language teaching at the beginning of the semester. Their belief system started to function at the practical level mid-semester, and at the end of the semester, Gab and Kel showed some emancipatory beliefs during the final interview.

Discussion

The results of this study indicated that Habermas's framework of cognitive interests describes and aligns with fundamental tenets and principles of language teaching, which allows language—teacher educator programs to look at their students' progress with a broader lens, one that shows not only the development of the students' conceptual knowledge but also their development of espoused beliefs. As Borg (2011) stated, those espoused beliefs "structure the ways in which knowledge is organized for application and for dissemina-

tion in the professions" (p. 371). A student teacher functioning in a technical domain considers skill-building activities such as fill-in-the-blank sheets, short read-aloud exercises, grammar lessons, and vocabulary lists essential, since these lessons can be predictable and easier to control. These activities also offer a systematic way of organizing content, which makes this content more manageable. When Ele explained how a typical day in her classroom would be during the interview, she emphasized the need for her students to learn new vocabulary words. She said, "They should be able to identify a new type of word at the end of the lesson." Gab described her day as having her students do the following:

> Read and speak, and having the kids speak, and read is very important because all students learn in different types of ways. Some learn better by hearing, some by speaking and some by physically reading. So by those three main things they are able to grasp the concept better and definitely learn from it in a positive way. (Gab)

These students also believed that they are in charge of every aspect of the class and even their students' motivation for learning.

Student teachers with a salient practical cognitive interest would consider the goal of communication as the one that would guide their pedagogical decisions. These students would plan around the students' communicative interests. These teachers would exhibit interest in using teams and community-building exercises. Connecting with peers and others would be central in their planning for language learning. During the job interview, Jen was asked to describe what a typical activity would be when she started teaching. She said the following:

> They look at the foods they would offer in France, and then they can work together, all in French. They can work out what items they want to, you know, have on their menu and what items they want to prepare. And then we can invite their families into the classroom, so, bring the community into the classroom to sample their foods—we can have people serving them, you know what I mean? It would be a really great experience of learning about France and its great food heritage, and also, um, showing [what] we can do, what we can communicate in the language, what we can prepare from the country, and showing it to the rest of the school community. (Jen)

Jen highlighted the importance of working together and sharing a cultural experience as a community.

One noteworthy finding was that this group of student teachers did not exhibit a salient or well-defined emancipatory belief system at the beginning of the semester, and only two, Kit and Vic, exhibited salient emancipatory interests toward the end of the semester. Most of their espoused beliefs at this level were about creating an inclusive classroom culture, free of fear, and being respectful of students' differences. During the job interview, Kit highlighted the "power of we" when asked about what she liked about the school she wanted to work for. She said:

> I checked the school's website, their curriculum, and I noticed that the school's main slogan was "the power of we," and I thought that was amazing because it brings everybody together, the community and the stakeholders. And it is a powerful word to use, and I would love to be part of a community that brings everyone together and makes an effort to show everyone in the community—teachers, students, parents, staff—that everybody is important and vital in the learning experience. (Kit)

Kit emphasized the message of inclusiveness, which showcases beliefs at the level of emancipatory domain. Having a belief system at the emancipatory level could allow student teachers to become advocates of their own field, because it helps them to identify important forces in the decision-making process at a time when resources in the language field are scarce and threatened with elimination. Emancipatory beliefs also allow student teachers to look at their own practices from a critical-theory framework, with the goal of becoming transformative agents of their own pedagogy. Hopefully, this type of transformation could lead to changes in old practices—for instance, moving from a grammar-based classroom to a more communicative approach. Freeman and Johnson (1998) affirmed that an effective teacher education program should approach educational settings not as unbiased and neutral spaces where "educational practices are implemented" (p. 14), but as "dynamic environments" where student teachers need to learn how to negotiate issues of power and access.

Limitations and Future Research

One of the most evident limitations of this study is the possibility that Habermas's classification would have limited the process of theme recognition to the three main levels of cognitive beliefs. A second limitation is the possibility of students' biases in the answers given during the job interview, because this interview was part of the final oral exam, and the students might have included narratives that are only part of what was discussed in class. The third limitation is the data collection time. More definite changes in their belief

systems could have been observed if the study's timeframe had been longer and continued during student teaching.

Future studies could use Habermas's framework to explore language teacher development further during student teaching and the first year of teaching. These studies could explore the role of the cooperating teacher's belief system in the development of student teachers' belief systems. Other studies could use quantitative measures that would allow for more generalizable results. In addition, other studies could look into levels of saliency at different points in the language educator's career.

Conclusion

The development of the belief system of future language teachers is key in determining the process of decision-making during their teaching years in the school system. Habermas offers a framework that captures the complexity of this belief system and will allow teacher educators to plan experiences that will help teachers develop beliefs not only at the technical and practical levels but also at the emancipatory level. Educators who are critical thinkers of their practices and the educational system as a whole are needed to promote change. Schools need teachers who are willing to transform and consider new ways of teaching, so their institutions develop more efficient ways to learn languages. This study shows that Habermas's framework could help teacher educators to facilitate the development of a more holistic teacher, one who not only understands the whats and hows of the field but also the forces that shape their practices.

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Appendix A

Language Learning Autobiography

This essay provides the reader with a snapshot of your experiences and an introduction to your views regarding the teaching of a foreign language. Carefully consider your experiences as a student in your foreign language classes and describe your reaction to these classes in elementary, middle, and/or high school. You need not list a chronology of every school year. Well-written essays will answer some but not all of the following questions:

- What were the purposes of the teacher?
- What content was taught?
- What do you remember?
- What did students do in class?
- What did the teacher do?
- What made teachers good and what characteristics did you associate with poor teachers?

Please limit your essays to no more than two, maximum three pages of double-spaced typing with 1" margins and a 12-point font such as Times New Roman.

Appendix B

Philosophy of Teaching

Develop a reflective essay that explores your beliefs regarding the purposes, methods, and content of foreign language teaching. Consider this essay as a written interview that you are having with a panel of middle or high school foreign language teachers. Please consider the following topics as you explain your rationale and teaching practices. Address these issues, but organize your answer according to your beliefs regarding effective practices in foreign language instruction.

- What is your rationale for teaching language in the middle or high school? This includes the knowledge you believe is most important, the values you will teach, and the skills that students will master in your classes.
- What approach will you take in teaching language to your students?
- How do you believe that students best learn a foreign language? What is the role of instruction about grammar?

- Reflect on ways you will develop cultural sensitivity in your students.
- What are your career goals? And what are your plans to achieve those goals?
- What are your beliefs about summative and formative assessment in a language class?

Appendix C

Mock Job Interview

You will demonstrate an understanding of the central concepts discussed in class, such as the teaching and learning process in world language and ESL education and the national standards. In the form of a mock job interview, you will describe the importance of language study while placing it within a cultural, social, educational, and professional context. These interviews will take place during the last week and the week of finals. You will be given in advance the job description for a fictitious K–12 world language/ESL teaching position. You are expected to dress professionally, and interviewers will consist of your course instructor and one or more practicing teachers/administrators with whom you are not familiar. On the night of the final exam, you must bring your portfolio, nicely organized. Each interview will last approximately 15 minutes.

The study used the participants' answers to the following questions:
- What should be the goal of the ESL/World Language classroom?
- How would you assess your students?
- Describe a typical day in your classroom.
- How do you accommodate the various learning styles of students within a class?
- How would you help advocate for the profession?/ ESL: How could you help make the ESL classroom part of the school community?

Maria Villalobos-Buehner

Habermas'sche Theorie in der Forschung zu kognitiven Interessen von Fremdsprachenlehrern

Zusammenfassung

Die Ausbildung zum Fremdsprachenlehrer umfasst sowohl theoretische und praktische Kurse, als auch pädagogische Praktika in der Schule (engl. *practicum*). Es wird erwartet, dass künftige Lehrer bei der Lehrtätigkeit während Praktikumszeit ihr konzeptionelles und praktisches Wissen einsetzen. Allerdings bei der Beurteilung ihrer Bereitschaft zur Lehrerarbeit wird lediglich das konzeptionelle Wissen in Betracht gezogen, während ihr Vorstellungssystem bezüglich Fremdsprachenlernen und -lehren ganz unberücksichtigt bleibt. Das erwähnte Vorstellungssystem bietet nicht nur einen wichtigen Einblick darin, wie sie ihr unterrichtsbezogenes Wissen organisieren, sondern weist auch auf ihre Offenheit für neue pädagogische Methoden hin. Im vorliegenden Artikel wird eine auf Grundlage der Theorie von Jürgen Habermas zu kognitiven Interessen konzipierte Untersuchung dargestellt, die sich auf die Analyse der Vorstellungen von neun künftigen Fremdsprachenlehrern zum Abschluss ihres methodischen Kurses bezieht. Die Analyse basiert auf Reflexionsessays betreffend un-

ter anderem kognitive Interessen der künftigen Lehrer sowie die Unterrichtsmethoden und Leistungsbeurteilung im Fremdsprachenlehren. Aus der Analyse ergibt sich, dass man bei der Bildung künftiger Lehrer die vorstellungsfördernden und auf den Verselbstständigungsprozess bezogenen Erfahrungen berücksichtigen sollte. Dies könnte die künftigen Lehrer bei den Bestrebungen unterstützen, ihre Autonomie im Bereich der Bewältigung von schweren Umweltbedingungen zu entwickeln oder die neuen pädagogischen Methoden umzusetzen.

Schlüsselwörter: künftige Lehrer, Vorstellungssystem, Jürgen Habermas, kognitive Interessen

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The Role of Attention in Teacher Education: A Factor in the Quality of European Schooling

Abstract

The text is an article of reflection aiming to examine causes of disproportions between the amount of effort undertaken by leading international institutions in the field of education and the quality of European school systems measured by the attainment of curricular goals. As worrying trends have been observed mainly at the classroom level, psychological rather than organizational factors need to be examined. It is hypothesized that current didactic problems should be explained by attention rather than motivation deficits. The paper, therefore, analyzes various types and aspects of attention, tendencies to misdirect it as well as ways of building and maintaining attention in order to counteract distraction, boredom and overstimulation of both teachers and learners. Suggestions are also formulated for pre- and in-service teacher education programs which are postulated to give more emphasis to the role of attention as well as to provide a toolkit of verbal and non-verbal strategies which may help language teachers to elicit and sustain learners' attention without departing from the lesson scenario.

Keywords: quality, language learning, attention, distraction, coping strategies, teacher education

Introduction

For a long time the quality of education in Europe has been considered the responsibility of schools and teachers. Until the end of the 20th century governments took interest in education only in times of the implementation of major school reforms, while major international organizations such as the Council of Europe, the European Union, OECD and UNESCO focused on human rights, democratic citizenship, peaceful coexistence and intergovernmental

collaboration, remaining firmly convinced that education lies beyond the scope of their interest. Yet, due to the growing awareness of its impact on economic growth, education kept slowly and systematically moving to become a sector of peripheral interest and then to take a prominent place on the European scene. For more than two decades now education in general and language education in particular, has been perceived as a *sine qua non* condition for successful economic development, thus becoming central to the concerns of all the international institutions. Yet, in spite of all the budgetary and organizational efforts quality of education remained unsatisfactory. Educational activity, therefore, turned first to promoting learner autonomy and then focused on motivation. The key, however, seems to lie in another factor, namely attention.

Dissatisfaction with Education—In Search of Possible Causes

The turn of the 20th and the 21st centuries marked a breakthrough for research conducted within the frames of the most important international institutions which turned to the analysis of school systems and their effectiveness. The Organization for Economic Co-operation and Development implemented two cyclic studies: *PISA–Program for International Student Assessment* (*PISA*) conducted every three years since 2000 and *TALIS–Teaching and Learning International Survey* conducted every five years since 2008, while the United Nations Educational, Scientific and Cultural Organization and its International Association for Evaluation of Educational Achievement developed *PIRLS–Progress in International Reading Literacy Study* conducted every five years since 2001. The European Union completed an analysis of language education through *SurveyLang–The First European Survey on Language Competences*. Results, although optimistic for some countries, in most cases prove far from satisfactory (European Commission, 2012; OECD, 2018a; OECD, 2018b; Mullis et al., 2017).

At the same time all the organizations focused on designing strategies to support teaching and learning. The Council of Europe constructed and extended the *Common Framework of Reference for Languages—teaching, learning and assessment* (Council of Europe, 2001; Council of Europe, 2018). OECD initiated an overall diagnosis of education in member countries on the basis of which the concept of key qualifications was born. The study led to the selection of eight competencies adopted by the European Union and widely promoted via numerous EU activities and projects (European Commission, 2019). The European Union focused on the organization of language education which gained a high status as a result of the Lisbon

Strategy with its "mother tongue plus 2 other languages" formula (European Commission, 2002; European Commission, 2005). The European Centre for Modern Languages in Graz launched projects aimed at raising the quality of language education and tackling issues caused by mobility and the resulting differences between learners' first languages and languages of schooling (www.ecml.at). In parallel all the governments of the EU member states have intensified efforts to provide proper infrastructure for schools and to control class sizes for language education offered therein (Baidak et al., 2017).

Despite the concerted international intellectual and financial investment, numerous problems remain unresolved, while educational systems meet with more and more criticism. Dissatisfaction has been voiced not only by researchers, but also by all the actors of the educational scene. Research launched by the OECD in 2005 and 2015 demonstrated that upper secondary school students tend to be more critical about schooling than the lower secondary ones, while both groups tend to be much more critical than primary school learners. Enjoyment and motivation have been demonstrated to gradually decrease with age and school level. The reason for the younger students' satisfaction with the school's offerings lies most probably in two areas: lack of formal evaluation eliminates pressure to get good marks, but also, as researchers put it, education in primary schools tends to be more play-oriented and, therefore, offers more opportunities for pupils "to follow their natural curiosity and be engaged in their own learning" (OECD, 2005, p. 79; OECD, 2015). Decreased enjoyment in older learners may also spring from the fact that—as the research demonstrated—"students do not have a one-dimensional understanding of what schooling is about. Schools represent many different things: places to learn, places to meet friends, and places to get the credentials to get ahead in life" (OECD, 2005, p. 88)—a phenomenon also identified ten years later in a series of case studies (OECD, 2015).

Dissatisfaction can be heard from parents, mainly the educated ones living in urban areas, who stress the need for personality development and problem-solving skills. Parental attitudes are extremely important in the OECD analysis, as family background proved to be the best predictor of educational achievement. Strong criticism directed at the lack of soft skills development comes also from business communities. At the same time, data collected in the *Teaching and Learning International Survey* have in the last decade been showing worrying degrees of teachers' dissatisfaction in 34 countries as more than 80 per cent of those questioned felt undervalued and cited a lack of influence on administrative and budgetary decisions. They also noted that the only sphere on which they could have an impact was the classroom, although even there they were far too rarely listened to (OECD, 2013). Data collected in the last TALIS survey reveal increasing problems with classroom discipline, especially in primary and lower secondary schools of 48 countries under research,

a phenomenon adversely affecting not only learning outcomes but also teachers' self-confidence (OECD, 2018a, p. 108).

Organizational problems connected with infrastructure and teacher provision seemed under control in the EU member states, as the last international comparisons lead us to conclude (Baidak et al., 2017: OECD, 2018b), yet attempts to raise the quality of language education in particular during the first decade of the 21st century have not brought satisfactory results (Heyworth, 2013) and no improvement in overall learning outcomes has been noted over the last decade (OECD, 2018b). The discrepancy was usually attributed to insufficient teacher awareness of individual learner variables—anxiety, willingness to communicate and motivation. One learner factor, however, was overlooked and has never been properly addressed, namely that of attention—the phenomenon to which we now move.

The Concept of Attention

Attention as the flexible control of limited computational resources (Lindsay, 2020) is defined as a cognitive process enabling the individual to select a stimulus from a multitude of stimuli coming from the environment and process information it carries (Zanto & Gazzaley, 2009). Attention presupposes a certain speed of individual reactions, a degree of alertness which makes it possible to select a salient stimulus out of a vast number of competing ones. Selection takes place through subconscious prioritization of stimuli and facilitates goal-directed behavior manifested in maintaining concentration on the stimulus considered relevant in a given context. The selection process is possible due to the inhibition of stimuli considered irrelevant in order to prevent distractibility and concentration loss, often referred to as mind wandering, although intentional and unintentional mind wandering should be distinguished (Seli, Risko, & Smilek, 2016). Suppression of irrelevant stimuli should be long enough to enable task completion, which presupposes the ability of an individual to self-regulate behavior (Humphreys & Sui, 2016; Foster & Levie, 2016). Difficulties in any of the stages listed above result in attention deficit, a phenomenon best examined in learners suffering from ADHD (Merell, Sayal, Tymms, & Kasim, 2016). Attention has a shifting nature, and any battle won is not won for long. Several types of attention have been distinguished; immediate attention attracted via a sudden emotion; voluntary attention focused on the initiative of the learner; non-voluntary attention attracted by a sudden, unexpected stimulus while performing another activity and involuntary attention when a task has been imposed and cannot be ignored for fear of consequences. Attention is linked to

working memory in which the component of WM referred to as central executive and situated in the frontal lobes (Baddeley, 2003; Scolari, Seidl-Rathkopf, & Kastner, 2015) is responsible for executive attention and considered "principal in determining individual differences in WM span" (Biedroń, 2012, p. 82).

It follows that in pedagogical contexts what teachers colloquially refer to as "the lack of learner's attention" is an expression running counter to all the psychological definitions available, according to which attention is considered to be a preferential response based on a learner's decision to focus on one of the competing stimuli. As a large number of stimuli attack the human organism simultaneously, the result is not only the unavoidable failure of almost all of them to win in this contest, but also a shorter attention span for the victorious ones. As learners tend to select more than one stimulus, their decision results in a continuous partial attention leading to distraction or multitasking, a time-saving phenomenon taking place at the cost of quality (Barnes & Dougherty, 2007; Sana, Weston, & Cepeda, 2013). School learners addicted to social media and background music usually engage in multiple activities, therefore, trying to reverse this trend is difficult, if not straightforwardly impossible. Optimistic approaches point to the fact that—as research demonstrates—"people may compensate for divided-attention costs by selectively attending to the most valuable items and that factors that worsen memory do not necessarily impair the ability to selectively remember important information" (Middlebrooks, Kerr, & Castell, 2017, p. 1103). Such compensation is, however, possible only when students are able to decide what is valuable and have some practice in prioritizing information, a skill that needs to be developed in class.

All this means that learners are always attentive and the problem lies in the fact that they do not attend to what the teacher planned to function as learners' attention focus. Teachers' battle for learners' attention and a tendency to minimize distraction tend to be treated globally ignoring the learners' age as a mediating factor. Although young learners acquire a language subconsciously and informally from input, adolescent and adult students need consciousness to ensure effective learning. Consciousness makes it possible to notice stimuli which then enter the working memory. Noticing and processing are a *sine qua non* condition for learning to take place (Schmidt, 1990), neither of the two being possible without attention, now more commonly analyzed as part of short-term and working memory.

Attempts at winning the race for attention call for the identification of factors stimulating it. These are: novelty, expectancy, contrast and high intensity together with interest determining motivation, a factor crucial to both attention and learning. The role of emotions cannot be underestimated. Teachers' difficulty with preventing their learners' mind wandering increases when group interaction produces strong emotions. As emotions elicit immediate attention, the teacher's battle for attention becomes a battle of and for emotions. Positive

emotions correlate with higher selectivity and lower distractibility levels, while negative emotions adversely influence the process (Kilingsworth & Gilbert, 2010; Pacheco-Unguetti & Parmentier, 2014), hence the value of good teacher-student and student-student rapport, a suggestion omnipresent in all teacher education programs.

Emotions immediately bring about attention and as friendly classroom atmosphere correlates with achievement, positive psychology promotes praise. Yet, although successful teachers praise twice as often than others, the amount of their critical remarks is not reduced. Positive feelings are not always desirable; research on optimists demonstrates that they are characterized by quick judgement, superficial information processing, less systematic thinking, unrealistic decision-making and less careful observation which makes them less valuable witnesses (Forgas, 2007; Forgas, Vargas, & Laham, 2005). Addiction to praise can also reduce levels of motivation and autonomy. What is more, suppressing negative emotions leads to their greater accessibility, which might be counterproductive if self-regulation fails. (Weiner, 2006). Attention, therefore, benefits from positive emotions, although not at the cost of suppressing critical remarks useful as constructive feedback or expressions of negative feelings surfacing in class life.

When students are considered inattentive, teachers tend to attribute it to laziness. The issue is, however, more complicated. Mediating factors such as family situation, transport, lack of sleep and overburdening with extracurricular activities are often responsible for mind wandering. The reason for mind wandering can lie in difficulty to give attention to one object, activity or task. It can also lie in the lack of ability to maintain the same level of concentration for a longer time. Sometimes the problem can be attributed to a variety of learning difficulties the most important of which is Attention Deficit-Hyperactivity Disorder (ADHD). Sometimes the reason lies in monotony which occurs when a stimulus is repetitive and attention previously elicited has been lost, but also when stimuli are too similar adversely affecting concentration. It can also lie in under-stimulation producing boredom when, out of numerous stimuli, none is deemed interesting enough to focus a learner's attention (Pawlak et al., 2020).

Attention is strongly connected with motivation. Permanent lack of stimulating factors may result in amotivation, while in most cases unpleasant events experienced in the past produce demotivation. Remotivation is, however, always possible. Very high levels of motivation strengthen both attention and concentration leading to the so-called directed motivational current (Dörnyei, 2005; Dörnyei, Henry, & Muir, 2016) or even to the flow phenomenon when work and pleasure start merging (Csikszentmichalyi, 2008). Conversely, motivation disappears, attention is lost and boredom creeps in when the task is imposed on the learner, but also when payoff is deemed not worth the effort. The learner

withdraws which can also happen when the material is either too easy, hence not stimulating enough, or too difficult, hence not likely to guarantee payoff. The student's verbal and/or non-verbal message is, therefore, one of the following: *Not much is going on/Enough, but it is not what I want/Not my choice, I simply had to do it/It is not worth my effort/I simply can't concentrate/I am full of negative emotions anyway.* The learner then passes through several stages moving from indifference to displeasure and then to the search for new, stimulating factors. If none are found or if those found elicit teacher's criticism—the situation breeds either learner's apathy which is a challenge for the teacher or aggression which is a challenge for the whole school community (Goetz et al., 2013; Kruk, Zawodniak & Chumas, 2017). The teacher has an outstanding role to play as didactic procedures have been found to be more important than learner's self-reported motivation (Guilloteaux & Dörnyei, 2008).

War on attention does not only mean a series of battles against competing classroom stimuli coming from peers. It also means dealing with lifestyles and coping with the speed of the modern world with its plenitude of institutions engaged in what is often referred to as the corporate arms race for attention and the plenitude of stimuli produced by the media. The following question, therefore, arises: What can teachers do to win this race for education and the learners' personal development and what can teacher educators do to help them?

Postulates for Teacher Education Programs

As attention is crucial for learning, we need to understand its functioning to efficiently manage the language class and effectively achieve lesson objectives. Pre-service teacher education programs, however, mainly concentrate on theories and global teaching methods, lesson structure and test-based assessment, while in-service workshops understandably focus on age groups and types of educational institutions served by course participants. Individual variables tend to be dealt with in the course of reflective practice which has gained a high status in teacher education of all levels (Gabryś-Barker, 2012; Krajka, 2012; Werbińska, 2017). What seems important, though often neglected, is the need for a didactic toolkit designed for trainees in order to provide them with certain strategies, but also with food for thought and reflection. Focus on valuable techniques which can help them in their battle for learners' attention would be most helpful in pre- and in-service teacher education courses. Issues worth including could encompass verbal and non-verbal techniques on the one hand and those useful in the teaching and in

assessment processes on the other. Their didactic value can only be determined for a particular group of students and sometimes even for a particular lesson, generalizations are, therefore, not well justified.

Initial steps in professional induction need to first address negative aspects of modelling behavior remembered from trainees' own school days. Not infrequently did their teachers use certain attention-attracting techniques to stimulate passive students and/or to redirect attention of those who respond to competing stimuli other than the didactic ones offered during the lesson. Unfortunately, a large group of these techniques were—in the spirit of those school times—based on criticism and blame typical of autocratic teaching styles and domination strategies which blur the distinction between achievement and effort by using the grading system to punish undesired behavior. In face to face classroom contact, power strategies ruin constructive interaction by negative, personal remarks breeding aggression or by delegating the problem to other individuals such as school principals or parents, which reveals the teacher's helplessness. All of them attract learners' attention, though not in the way desired as emphasis is given to the teacher-student conflict rather than to the learning task.

What is often deeply ingrained in many trainees' memories is their school teachers' ways of attracting attention by eliciting negative emotions such as shame, irritation or anger elicited through critical remarks connected with certain types of feedback given to learners in connection with their classroom behavior or with their educational attainment. Comments breeding aggression usually take the form of personal 'You-messages' of the *you always...* kind. Here a constructive element of teacher education can be introduced: according to the *Congruent Communication Theory*, feedback in this form tends to be rejected and as such is didactically useless and, what is more, ruins teacher-student rapport, destroying chances for fruitful interaction (Ginott, 1972; Spitzberg & Cupach, 2007). For classroom management purposes expressive 'I-messages' describing the teacher's feelings about the situation are more effective as they are either accepted or ignored with no negative emotions to follow. 'It-messages' which point out the problem, describe it and suggest constructive solution are the most valuable and tend to be fully accepted by the addressee.

Another aspect seems worth pointing out here. Constructive feedback manifested in the appropriate choice of message format shows the learner ways of evaluation which do not base on power and authority, but on a precise diagnosis springing from observation and expertise. This means that—as the *Elaboration Likelihood Theory* puts it—central rather than peripheral processing is taking place in the mind (Petty & Wegener, 1999). It is, therefore, important for the teacher to be aware of impulsive tendencies and, in consequence, to be able to block reactions to be avoided and choose feedback formats conducive to learning. It is also indispensable for the teacher to have at least some knowledge of

the learner's reactions as today we know that students with high ego-protection do not easily take critical remarks, remember negative feedback for a long time, but at the same time may be distrustful of praise, doubting the authority of the person who praises them, while students with tendencies to enhance their ego tend to actively seek praise, remember praise for a long time and respect the person praising them (Sedikides & Skowronski, 2009).

Elimination of subconscious modelling and replacing it with constructive patterns paves the way for the introduction of useful didactic techniques. The most popular of the verbal ones draw on attractiveness of the teaching content, selecting *topics of interest* and enjoyable *activities*. Trainees should, however, reflect on the fact that this seemingly effective path is often less effective than planned as teachers tend to select what they presume would be interesting and enjoyable for students, a type of content not always perceived by the learners as such. On the other hand, students' needs may prove so diverse that it is extremely difficult for the teacher to satisfy them given curricular constraints; teacher-student consultations are, therefore, needed. The race for attention may be won, but the attention gained does not go to learning; it is given to negotiation often used to gain time, especially if prolonged negotiations are conducted in the mother tongue. If the problem does not arise, yet learners attention is misdirected—an unexpected code-switch from L2 into the mother tongue may serve the purpose, though it works only for teachers who conduct their lessons in the target language as otherwise the surprise factor of such a brief intervention is lost.

Simple and effective, but not so frequently used classroom techniques to be recommended are, for example, *the feed-back technique*, whereby learners are not informed of teaching aims at the beginning of the lesson, but engage in their inductive discovery at the end of the session or *the traffic light technique* based on end-of-lesson color cards where a red card signals lack of skill, a yellow one shows that a skill has been developed only partially and a green one informs of learner's difficulties. Attention attractors can also be found among self- assessment techniques based on the expectancy factor such as *self-assessment prediction* where students try to determine the grade they expect, compare the grade received with their expectations and check their own work one more time against the grading criteria; or a peer assessment procedure according to a *two stars and a wish formula* with two aspects to praise and one to be considered for the future. What is also effective, is *guessing the upcoming test technique* whereby students are encouraged to prepare their own test items of the type they expect to appear on a test.

Resources can also be found in non-verbal communication. *Silence* is the simplest, though often forgotten option which proves powerful on two conditions: first, when it is unexpected and, second, when it is combined with intense gaze. Its psychological function is based on the surprise factor, which

makes it useful for teachers whose conversational style tends to be one usually referred to as the *high involvement style* characterized by fast speech, expressive intonation, short hesitation pauses and immediate starts when others finish their turn. Silence as attention attractor is not effective for those whose way of speaking is described as the *high considerateness style* marked by slow speech, long hesitation pauses, intonation and delayed start when others finish talking and less expressive pitch (Tannen, 2005; Tannen, 2012). Silence as a classroom management technique used for disciplinary purposes enables the teacher not to depart from the original lesson scenario, an additional benefit impossible if verbal strategies are used (Witosz, 2006).

Gesture is another obvious choice, considering it does not take time needed for language teaching and can even support contact and comprehension at the same time playing a management function. So far teachers have been interested in the conscious use of gesture for two reasons: signaling approval / disapproval and error correction. Today explicit instruction in the use of gestures which should be part of teacher education takes place solely in courses of business English or English for public speaking where persuasive and manipulation skills are being developed. What seems to be relatively well popularized in language teaching methodology is a specific use of gestures to signal grammatical errors, but these are beyond the scope of our reflection here as they relate to the learner's utterance, that is, a situation in which the learner's attention is already in harmony with the teaching focus. Gestures attempting to hold attention for a longer time or to attract attention lost can take several forms depending on the speaker's intention (Komorowska, 2018). Attention is more likely to be attracted when gestures bridge an information gap needed to complete a task. For that purpose teachers can use *deictic* gestures which point to an object, thus supporting comprehension of a difficult or unknown word or replacing missing nouns, *but* also *iconic* gestures which present the shape of objects spoken about. In order to elicit speech the teacher may use *metaphoric* gestures which carry a specific meaning, such as a hand placed on the heart, with a subset of *emblems*, that is, gestures carrying one meaning evident to every member of a given speech community. To hold learners' attention teachers can use *beats* which signal the rhythm of their speech, and provide implicit non-verbal instruction in suprasegmentals.

If teachers decide to explicitly concentrate learners' attention on the use of gesture and raise awareness of its individual use, pair work or group work rather than the desk-to-desk format is recommended during which one student gives a brief oral presentation and the other one gives feedback describing body posture, facial expression and gestures which have been used, their intention and the listener's perception of their function, value, and quality. Reaction of the observed and possible comments by the other members of the group end the activity which is usually considered attractive in the classroom. The

teacher's role is to create relaxed learning environments, offer model sentences to prevent undesired forms of criticism which would block further communication and harm interpersonal relations in the classroom, and give tips on verbal and non-verbal signals of attentive and respectful listening. Encouraging learners' gesticulation in the classroom is not likely to reduce student speaking time as no more than 7 per cent of interlocutor's responses have been found to consist of gestures only (Puppel, 2013). What is more, verbal signals attract attention, bodily engagement enhances motivation on task, and conversations accompanied by gestures are perceived as more smooth and natural (Sidnell & Stivers, 2012).

Controversial Issues

Arguably the most important controversy concerns the value of *new technologies* which are believed to motivate students and are today part of their everyday life. Their role in unexpected situations, such as pandemics, is not at all questionable; there is, however, uncertainty about the value of for example, the use of mobile phones during face-to-face lessons or of various applications used during the preparation of homework assignments. Controversy started when the European Union's international comparative analysis of educational attainment in languages surveying 50 thousand 15-year-olds in 15 countries with 18 school systems proved completely unexpected in the section devoted to new technologies. In the times of enthusiasm for promising solutions, factors which do not correlate with FL test scores were identified as: teacher's use of ICT outside lessons for teaching, teacher's use of ICT devices when teaching and teacher's use of web content for teaching. What is more, strong negative effect of ICT use at home was found, with some positive effect only on listening comprehension. Similarly negative effects were noted of time spent on preparing students for tests as well as of time spent on homework. General report stated "no positive effect on average scores on the language tests for any of the skills" (European Commission, 2012, p. 83).

The explanation of the data quoted above, which have every right to be perceived as counter-intuitive, most probably lies in the selection of stimuli and the subsequent direction of attention which tends to orient itself towards hardware rather content. It may also lie in the low value of didactic content and misuse of new technologies which more and more often lead to treating life as a competition during which the goal of people and institutions is to attract our attention. The phenomenon is extensively discussed by Tristan Harris, a design ethicist formerly working at Apple and Google who analyzes ways in which

creators of big international corporations with authors of advertising campaigns 'hijack our attention' and warns against losing control over our time and life. Today he heads the Centre for Humane Technology (www.humanetech.com) whose activity is not directed against new technologies, but consists in planning strategies to help users identify their own needs rather than let technological giants create artificial needs for commercial purposes.

Another controversial issue is the phenomenon of teachers' attention, a phenomenon rarely discussed by educators understandably concentrating on learners. Whether their attention is evaluated positively or considered misdirected is very often a matter of opinion. In didactic contexts, for example, teachers' attention often goes to grammatical errors. These are usually noticed not only as a consequence of long educational tradition, but also because mistakes in this field are often perceived as indices of the learner's attitude to language learning and symptoms of disrespect to schools and teachers. They are also noticed, because—alongside spelling—grammar is an aspect of a foreign language where objective assessment is possible. It also goes to grammar because teachers treat the type and number of mistakes as an important piece of pedagogical information on how diligently the learner works in class and completes assigned homework. Yet, goal-directed corrective behavior by the teacher is often much better justified in tasks designed to develop speaking skills, when attention targets content, rhythm, intonation and fluency. Balancing objectivity of assessment and the communicative value of the message in teacher's attention management is a difficult decision, not infrequently mediated by internal regulations of the employing institution.

On a more general plane, teachers often feel insecure when it comes to making decisions on how to manage their attention when offering corrective feedback and—considering the multitude of conflicting opinions in the literature on the subject—they have every right to be confused. Academic sources are abundant in books and articles on Englishes of the World and the role of English as a global language functioning as the lingua franca of the modern times (Jenkins, 2014). Most of these texts undermine the status of the native-speaker as a criterion of linguistic standards, and thus legitimize ELF users of the international language. On the other hand, characteristics of speech samples produced by speakers of ELF are similar to those produced by B1/B2 speakers of English as a foreign language. It is, therefore, understandable that teachers may start hesitating when it comes to correcting mistakes made by intermediate, upper-intermediate or advanced students, especially the relatively fluent ones. Yet in school language learning future needs of our students are unknown and, in the era of mobility, it would be dangerous to assume that they will never live in English-speaking countries and are likely to communicate with other ELF speakers only. Yet, as Alan Davies (2015) states in his interview for LAQ, we have no other criterion than the native-speaker who

will remain a model, which does not mean that this model must be identical with the educational goals selected for a given program. For the time being, developing proficient speaking skills results in fact in less rigor in the teaching of grammar and pronunciation where criteria have been shifted from accuracy to acceptability.

Redirecting teacher's attention from what learners consider to be the focal point is also subject to controversy. Teachers are often encouraged to take learners' communication anxiety into consideration and refrain from intervention or use delayed correction in the hope that this procedure will attract learner's attention without ruining their self-esteem and blocking fluency. Students, however, consider immediate error correction part of the teacher's job and tend to suspect teachers who tend to ignore mistakes of neglect or incompetence. The lack of immediate correction is at the same time taken by other students to mean approval of what is being produced which may lead to promoting mistakes in the classroom. Recast presented in a voice soft enough not to stop a learner's utterance, but clear enough to inform everybody of the correct form seems to be a better option, yet opinions here remain divided. A similar redirecting process takes place when teacher's attention goes to learners' classroom behavior taken as an index of their attitude towards school and the teacher. Their behavior towards their peers is, however, more than infrequently much more important than their behavior vis-à-vis the teacher as bullying and hate speech are easy to overlook when attention is directed to unpleasant, though much less dangerous, behavior. Misdirected attention on the part of the teacher is definitely among topics rarely addressed in the course of pre- and in-service teacher education.

Conclusion

In pre- and –in-service teacher education curricula attention does not seem to be granted the status it deserves. As a factor crucial for learning, it should be attracted to stimuli relevant for the learning process, yet in the influx of stimuli, there is no certainty that didactic procedures will automatically ensure goal-oriented behavior in the school context. Not all verbal techniques function effectively and some, especially those based on domination strategies, are counterproductive causing boredom, negative attention, frustration or aggression. Content interesting for students and positive teacher-student rapport always help, yet without appropriate forms of feedback they are not likely to guarantee full success. Extra resources need to be sought among less frequently used classroom procedures, such as innovative self-assessment and peer-assessment

techniques as well as in non-verbal strategies involving silence and gesture. Making trainees aware of the need for constructive attention attracting techniques is today one of the primary goals of teacher education.

It should, however, be remembered that to give attention to others, teachers themselves also need attention not only from their learners, but also from parents and administrators. Evidently they do not get enough considering the data collected in the TALIS survey quoted above. If more than four-fifths of a huge sample of European teachers feel dissatisfied and undervalued, it is crucial to start searching for underlying processes. Research on causes of this undesirable state of affairs was launched by the OECD by a group of researchers who came up with a list of four basic factors—a lack of autonomy in professional decisions (the intrinsic component), unpleasant atmosphere of the workplace (the external component), barriers in professional development resulting in a blocked career path (the temporal component) and stress or burnout caused by lack of success and limited options. The OECD report explicitly states that positive atmosphere in the staff and administrative decisions respecting teachers and supporting their work are crucial for the quality of education: "Teachers cannot make progress unless they are happy" (Looney & Wiliam, 2015). If governments expect to see high educational achievement in their countries, they must invest in schools and teachers.

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Hanna Komorowska

TDas Phänomen der Aufmerksamkeit in der Lehrerbildung und dessen Bedeutung für die Qualität des europäischen Schulwesens

Zusammenfassung

Der Artikel präsentiert Überlegungen zu den Ursachen für Missverhältnis zwischen dem durch europäische Einrichtungen im Bildungsbereich geleisteten Aufwand und der an Umsetzung von Programmzielen gemessenen Qualität einzelner Bildungssysteme. In Anbetracht dessen, dass sich die beunruhigenden Bildungstrends hauptsächlich auf dem Niveau der Schulklasse bemerken lassen, scheint es relevant zu sein, dass man in erster Linie die psychologischen und nicht die organisatorischen Faktoren unter die Lupe nimmt. Im Artikel wird die These gestellt, dass man auf der Suche nach Gründen für Misserfolge das Phänomen der Aufmerksamkeit analysieren sollte, während bisher die Motivation im Fokus des Interesses stand. Es wurden daher die Typen und Aspekte der Aufmerksamkeit, die Tendenzen zu deren Umlenkung, sowie die Techniken zur Gewinnung und Aufrechterhaltung von Schüleraufmerksamkeit erläutert, um deren Ablenkung entgegenzuwirken. Darüber hinaus wurde die Frage der Ausrichtung von Lehreraufmerksamkeit angesprochen. Auf dieser Grundlage wurden die Forderungen an Lehrprogramme und die Fort- bzw. Weiterbildung der Lehrer formuliert, die man um solche verbalen und nonverbalen Förderungsstrategien für Anziehung und Aufrechterhaltung von Schüleraufmerksamkeit erweitern sollte, die mit keiner Notwendigkeit, das vorher entwickelte Unterrichtsszenario zu modifizieren, zusammenhängen würden.

Schlüsselwörter: Fremdsprachenlernen, Bildungsqualität, Aufmerksamkeit, Lehrstrategien, Lehrerbildung

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Integrating Form and Content within Classroom Discussions of Literature: A Discernible Advantage in Language Learning

Abstract

As both form-focused (FFI) and content-based (CBI) instructions have advantages and disadvantages in language teaching, the integration of FFI and CBI into literature-based classrooms provides an ideal context to attend to form and meaning and some of the strongest rationales for language acquisition as the disadvantages of one approach will be compensated by the advantages of the other. When FFI and CBI are integrated in conjunction with literature-based approach, learners easily perceive language patterns in the meaningful context, foster content learning and initiate production of the meaningful discourse. Simply put, the advancement of grammatical accuracy and content unveils improvements in language proficiency. The present study aimed to create a favorable condition for language learning through employing FFI and CBI incorporated in a literature-based program. Quasi-experimental approach was adopted and the participants were 60 students majoring in English Language Teaching at a university. It was found that this integrative pedagogy can be used as a springboard for language proficiency development because learners exhibited notable progress in enhancing their grammar and vocabulary knowledge.

Keywords: form-focused instruction, content-based instruction, integration, language development, accuracy

Introduction

The principle of integrating language and content learning is a favorable condition for language learning for its advantages to offer a substantial amount of language input, engage learners into more interaction and provide

output in meaningful communicative contexts (Lo, 2014). The process of interaction brings about receiving modified input while learners process negotiation of meaning (Mackey & Oliver, 2002), taking cognizance of target language features through noticing (Gass & Mackey, 2007), and pushing learners for more language output (Swain, 1995) that results in language development. The acquisition of linguistic forms through instructional interventions enables learners to use the language with greater fluency and accuracy (Spada & Lightbown, 2008).

It should be noted that in the failure of form and meaning balance language learning does not spawn successful outcomes. The inclusion of form-focused instruction in a content-enriched language instruction through using literary works offers learners discernible advantages. Literature gives a basis for group discussions; thus, it has communicative value (Mart, 2018; Mart, 2019a; Shanahan, 1997). Moreover, literature discussions have the potential to help learners notice language forms and integrate the knowledge into communicative activities (Mart, 2019b; Nystrand, 2006). This study has been designed to draw learners' attention to form and meaning simultaneously through integrating form-focused and content-based approaches by means of literature discussions to make real gains in grammar and vocabulary learning.

Literature Review

Form-Focused Instruction

Empirical support for form-focused instruction (FFI) comes from several studies investigating its role in communicative use of language (Larsen-Freeman & Long, 1991; Ellis, 2008; Ranta & Lyster, 2018). Spada (1997) bestows promising evidence for the potency of FFI and defined the approach as "any pedagogical effort which is used to draw the learners' attention to form either implicitly or explicitly […] within meaning-based approaches to L2 instruction in which a focus on language is provided in either spontaneous or predetermined ways" (p. 73). Ellis (2001), on the other hand, defined FFI as "any planned or incidental instructional activity that is intended to induce language learners to pay attention to linguistic form" (pp. 1–2) that embodies not only traditional but also communicative approaches. For Ellis, Basturkmen, and Loewen (2001; 2002), the form includes grammar, vocabulary, discourse, and phonology.

Following Long (1991), FFI is comprised of two types: focus-on-forms and focus-on-form. The former involves intensive treatment of pre-selected specific features based on a linguistic syllabus. The primary focus of attention

in focus-on-forms instruction is on the targeted form (Ellis, Basturkmen, & Loewen, 2002). It refers to teaching different points of grammar in separate classes (Sheen, 2002), and preselected forms are attended intensively (Ellis, 2001). It is assumed that focus-on-forms is equated with skill learning and arises from cognitive processes (Sheen, 2002). Conversely, in focus-on-form the central focus of attention is on meaning which brings learners' attention to "linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning or communication" (Long, 1991, pp. 45–46). Long (1991) defined focus-on-form as instructional approaches where the emphasis remains on specific linguistic forms during communicative activities. His definition is restricted to pedagogical events that root in meaning-based activities in which certain linguistic forms are not practiced in predetermined ways. The underlying assumption of focus-on-form is that it derives from comprehensible input ensues from natural interaction.

Norris and Ortega (2000) argue that both focus-on-form and focus-on-forms are equally effective. Focus-on-form is an exponent of grammar-problem-solving tasks rather than explicit instruction (Sheen, 2003), because grammar is treated to meet communicative needs of learners. Likewise, focus-on-forms shares the same assumption with focus-on-form that the priority of communication receives a surge of attention. Teaching grammar is compatible with the development of communication skills in the theory of language acquisition. For this reason, it is recommended that grammar should be the object of some sort of intervention when communication breakdown occurs (Doughty & Varela, 1998).

FFI has been operationalized as proactive or reactive (Lyster, 2015). While proactive FFI refers to pre-planned instruction to render it possible for the learners to use features of target language which are considered difficult to learn with the aid of exposure to input, reactive FFI bears on language production of learners during teacher-student interaction to bring their attention to the target language (Lyster, 2015). Reactive FFI involves "corrective recasting" (Ellis et al., 2002, p. 422), and spontaneous and unplanned attempts (Lyster, 2007) in which corrective feedback for the treatment of learner errors is provided if learner's self-correction does not occur though the error is highlighted by the teacher. Corrective feedback, a type of FFI, has been considered conducive to language learning as learners have the opportunity to correct their errors. A substantial number of studies have showed the beneficial effects of corrective feedback; thus considered effective in fostering noticing (Sheen, 2007; Yang & Lyster, 2010). Cognitive psychologists are concerned that the provision of corrective feedback interrupts the flow of communication (e.g., Chaudron, 1988); however, this idea has been viewed as a paradox by Lyster (2007) who attests that corrective feedback should be elicited "in the heat of the moment" (p. 137); simply put, when "the error is still active in memory" (DeKeyser, 2007, p. 5).

Second language instruction involves two different types that differ regarding the timing of attention to form; while in isolated FFI attention to form is separated from communicative instruction, in integrated FFI attention to form is embedded within communicative teaching (Spada et al., 2014). However, isolated FFI is different from focus-on-forms which involves exclusive focus on language structures. Isolated FFI refers to a focus-on-form that is presented separately but it supports communicative practice. Isolated FFI does not refer to meaningless repetition of grammar rules, thus it does not exclude communicatively-based practice.

Both isolated and integrated instructions have different roles in promoting language acquisition. Second language acquisition (SLA) research has explored the effectiveness of instruction whether it involves attention to both form and meaning. Spada et al. (2009) state that theoretical support for integrated FFI is expressed in Long's (1996) "revised interaction hypothesis," Swain and Lapkin's (2002) "meta-talk," and Lyster's (1998) "negotiation of form" constructs in SLA. These three constructs hinge upon the assumption that if learners attend to form within communicative practice, they obtain information concerning language form by virtue of form-meaning connection and use it for expressing messages. Empirical support for integrated FFI can be found in the works of Ellis, Basturkmen, and Loewen (2001); Williams (2005), and Valeo and Spada (2015) in which learners attend to form in communicative classrooms. Conversely, theoretical support for isolated FFI comes from DeKeyser (1998) who argues that grammar instruction should be performed explicitly "to achieve a maximum of understanding, and then should be followed by some exercises to anchor it solidly in the students' consciousness, in declarative form so that it is easy to keep in mind during communicative exercises" (p. 58). Norris and Ortega (2000) pointed to the necessity of teaching language properties directly and concluded that explicit types of FFI are more effective to help learners notice language forms.

Isolated FFI occurs when focus on language form is separated from meaning-based activities in language classes. This approach is mainly concerned with preparing learners for a communicative activity (Spada et al., 2009). Stern (1992) argued that "there is a still a place for a separate analytic language syllabus" (p. 180), although communicative activities have a central role in language teaching methodology. Ellis (2002) asserted that grammar should be taught separately "making no attempt to integrate it with the task-based component" (p. 32). Nevertheless, isolated FFI does not refer to practicing target forms in mechanical drills which are separate from the communicative activities. Rather, it engages learners in communicative practice through drawing their attention to target forms that arise during interaction activities (Spada et al., 2014). Isolated FFI is useful to elucidate misleading similarities between the L1 and L2 and it helps ensure that learners see simple language features that occur frequently

but are not salient in oral and written language (Spada & Lightbown, 2008). Isolated FFI includes the assumption that learners need to discover certain target features during communicative activities. Van Patten (1990) suggested that beginner learners cannot concentrate on some aspects of target forms while perceiving the meaning of a text. Information processing theory argues that learners have difficulty in focusing form and meaning simultaneously due to the restricted processing capacity of the human mind (Ellis, 1997).

Integrated FFI is an appropriate approach for complex language features. Studies by DeKeyser (1995) and Robinson (1996) show that compared with easy rules; hard rules, which are difficult to describe, cannot be successfully taught in isolated instruction. Thus, learners learn complex rules better by means of integrated FFI. The potential effectiveness of integrated FFI to instruction for language features in which errors prompt communication breakdowns has been widely addressed; furthermore, learners need isolated FFI to make form-meaning relationships for low salient and low frequent language features which do not have high communicative value, and once learners make form-meaning connections more fluent and accurate use of the language features may be encouraged through integrated FFI (Spada & Lightbown, 2008). In general, adult learners benefit from instruction and isolated grammatical instruction is more favorable for them (Barkhuizen, 1998). Young learners acquire proficiency in language with little FFI (Spada & Lightbown, 2008).

Content-Based Approach

CBI is an umbrella term that refers to a wide array of teaching models which take language teaching as a basis (Valeo, 2013). CBI is defined as the simultaneous study of language and subject matter with the focus on form and sequence of language items imposed by content material (Martel, 2016; Waller, 2018). Stoller (2008) defines CBI as an instructional approach that dedicates itself to language and content-learning objectives. CBI is conceived as "two for one" (Wesche & Skehan, 2002, p. 221); that is, it rests on the principle that language learning arises with the dual focus of language and content (Netten, 1991). CBI represents the integration of language learning and cognitive development (Lyster, 2011) to create "the requisite motivational basis for communication" (Lyster, 2007, p. 2).

As an instructional framework, CBI has been considered an effective pedagogy for reinforcing language teaching through the use of authentic materials. The utility of authentic content material in language learning has unveiled fulfillment of the study and a sense of accomplishment for learners (Gaffield-Ville, 1996). A great deal of research has revealed favorable responses toward CBI with regard to its benefits in promoting language learning (Leaver, 1997),

increasing learner satisfaction (Rodgers, 2006), enhancing content knowledge (Stryker & Leaver, 1997), facilitating skill learning (Pica, 2002), improving academic achievement (Smit, 2008), and developing motivation and self-confidence (Stryker, 1997).

A major source of support for CBI classes comes from the Natural Approach, which disregarded grammar teaching. In content-based language teaching, language proficiency is gained by learning of subject matter rather than grammar rules or vocabulary lists. CBI is an instructional approach that shifts the focus of the course from language learning to subject matter learning (Leaver & Stryker, 1989). In other respects, CBI can contextualize language instruction; thus, plunge learners into a rich exposure to form-meaning relationships and render it possible to learn grammar and vocabulary in clusters pertaining the given topics (Wesche & Skehan, 2002).

A high level of persuasive support for CBI comes from educational and cognitive psychology. Cognitive learning theory, discourse comprehension processing research, depth-of-processing research, expertise research, and motivation attribution and interest research are five research areas that contribute to CBI (Grabe & Stoller, 1997). Cognitive learning theory is a strong potential rationale that integrates attention to language and content and is based on a learning theory proposed by Anderson (1990) which combines language knowledge development, language usage practice and strategy training to reinforce independent learning. Grabe and Stoller (1997) assert that discourse comprehension processing research has demonstrated that the relatedness and coherence of the information pave the way for improved learning and recall. Additionally, they attest that depth-of-processing research is consistent with CBI because it provides a basis for coherent and meaningful information that makes way for deeper processing and better learning. Expertise research refers to learning that allows learners to reinvest their knowledge in sophisticated problem-solving activities and gain from the challenges that will occur (Bereiter & Scardamalia, 1993). Interest of learners in the content triggers their motivation and brings about better learning. Research claims that highly motivated learners tend to make more sophisticated elaborations on the materials through seeking connections among sets of information which will ease their recall of information (Tobias, 1994).

Cummins (2000) is particularly interested in the degree of cognitive demand and contextual support rooted in the tasks while language and content integration; in this framework, learners are apt to access the content with less cognitive demand through tasks with a great degree of context while less context is associated with experiencing difficulties in terms of linguistic knowledge. It has been well documented that CBI classes are effective in the development of content knowledge and interpretive skills (Rodgers, 2006). However, one aspect of CBI that is open to discussion is whether it can promote the form-

meaning connections learners need for the development of expressive abilities. More precisely, in CBI contexts the connection between content knowledge and functional linguistic abilities of learners remains controversial. Seeking explanations, Williams (2001) posited that learners, particularly at lower proficiency levels, concentrate more on understanding the input than the linguistic form in the context. Likewise, VanPatten (1996) supporting this view hypothesized that in the course of input processing, learners attach priority to meaning rather than form. In essence, it appears that semantic processing of input takes precedence over syntactic processing (Swain, 1985). Zeungler and Brinton (1997) in their attempts to show the connection between linguistic form and pragmatic function held that form and function are inextricably linked, thus content learning and language development cannot be distinguished. It appears to be the fact that form and function development of learners occur jointly which is considered as an optimal path to communicate the acquired concepts of the content (Rodgers, 2006).

A number of studies validated the use of CBI in foreign language acquisition and development and reported that CBI is a viable approach for the development of content knowledge and expressive skills (Rodgers, 2006). A substantial amount of literature clearly points the significance of content-based instruction due to its potential benefits for academic growth and language proficiency development (Stoller, 2004; Pessoa et al., 2007). Regular curriculum concepts are enriched with academic content to provide a context for language learning (Curtain & Pesola, 1994). Stoller (2002) states that in content-based instruction language is viewed as a medium for learning content and content is considered as a resource for the mastery of language.

In the pedagogical literature, incorporating form focus into communicative activities has been considerably supported. For instance, Celce-Murcia (1991) advocates combination of language features within communicative activities and argues that "grammar should never be taught as an end in itself but always with reference to meaning, social factors or discourse or a combination of these factors" (pp. 466–467). Correlatively, Brumfit (1984) asserts that learners should not be prevented from combining language forms with language use since feedback that is provided during communicative interaction influences on formal accuracy. The integration of focus on language form into communicative interaction provides an ideal context for learners to attend to language form. The comprehensible input in meaningful interaction is an effective factor for language acquisition (Long, 1996). Language learning through the use of subject matter makes room for language proficiency and academic skill development across a wide range of learners (Pica, 2002). The integration of subject matter knowledge and language forms not only improves learners' content knowledge but also language skills concurrently (Wesche & Skehan, 2002) which largely contributes to augmenting communication of content (Swain, 1985).

The Current Study

Study Purpose and Research Questions

In this study, all three groups underwent different treatments (form-focused, content-based and mixed approaches) to investigate the role of combining attention to form and meaning. The aim of the current study was to reveal which of the treatment types the study used has the potential to raise the students' ability to master grammar and vocabulary for meaningful communication. It is hypothesized that integrating language and content is an effective inviting way for students to discover language forms during communicative interactions. The study addressed the following research questions:

1) Is teaching form and content in tandem a favorable condition for language learning?
2) Does the integration of form-focused and content-based approaches within classroom discussions of literature provide advantages to enhance grammar and vocabulary learning?

Participants

The participants in this study were 60 first-year students majoring in English Language Teaching (ELT) at a university in Iraq. Their ages ranged from 19 to 25 years. The students, with a native language other than English, met three hours a week for two months. They were divided into three different classes randomly (each class had 20 students). Based on the proficiency test they had after enrollment, they were placed in the intermediate level of the program. A situation was constructed for the students to engage them in a process of discovery in which they were afforded the opportunity to promote grammatical accuracy development and enhance their vocabulary knowledge. In this study classroom discussions of literature served as an avenue for the students to perceive the features of target structures in contexts and decipher the meanings of unfamiliar words. While articulating their opinions during classroom discussions, the participants underwent different treatment types. The first control group (Group 1) received form-focused instruction. The second control group (Group 2) received content-based instruction and finally, the experimental group (Group 3) received the instruction that included form-focused and content-based components (see Table 1).

Research Materials and Procedures

The reading materials included *The Great Gatsby* (1990) by Scott Fitzgerald and *Lord of the Flies* (2003) by William Golding. While the former centers on the differences between social classes and the decline of American dream, the latter delves into civilization and savagery. These two novels were chosen for their appropriate length, accessible language and universal themes. Pre-and post-assessments were viable methods to assess the extent which an educational intervention influence learning. These tools in this study were used to measure students' vocabulary and grammar knowledge. Comparing the amount of pre-existing knowledge on the topic with the learning as a result of the course experience indicated whether the training courses were successful in increasing their knowledge of the training content.

Table 1

Treatment Activities

Groups	Methods employed	Treatment activities	Focus on form/meaning
Group 1	form-focused instruction + literature-based instruction	metalinguistic explanation + explicit and implicit corrective feedback	form
Group 2	content-based instruction + literature-based instruction	recasts and prompts as as feedback on meaning	meaning
Group 3	form-focused instruction + content-based instruction + literature-based instruction	metalinguistic explanation + explicit and implicit corrective feedback	form + meaning

Procedure in Group 1

Explanations, dialogues, key sentences, and teacher action are components of conventional presentation techniques (Johnson, 1996). In this study, Group 1 received treatment that included grammatical explanations and utterances of students in dialogues. Explicit and implicit corrective feedback helped students with the acquisition of grammar. The researcher used recasts and prompts to draw students' attention to the target forms. Metalinguistic explanations were provided during the treatment instruction. All classroom discussions were on the course content and based on the mastery of language forms but the instruction to Group 1 also included instructions that engage learners in communicative practice.

The implementation of both explicit and implicit corrective feedback, as displayed in Table 2, during treatment instruction in Group 1 was conducive to the acquisition of grammatical features. The instructor provided implicit feedback in the following example by responding to the learner's error in Group 1. In response to the learner's statement "has became," the instructor replied "has become." Or to put this another way, ill-formed utterance was reformulated by the instructor to encourage the student to use the target forms more accurately. The provision of on-the-spot reformulations by an external source created conditions for learners to elicit self-repair and promoted the level of accuracy in language acquisition. An example of explicit feedback was the instructor's response to the student's error by saying "use present tense consistently." It is important to stress that corrective feedback displayed a significant advantage to repair the errors and produce a modified output.

Student: The beast has became one of the most important goals in the novel.
Teacher: Oh, the beast has become one of the most important symbols in the novel. Can you give an example?
Student: Yes, it has become an important symbol for instance; it has become Jack's source of power.
Teacher: How does Jack use the beast to his advantage?
Student: He used the beast to frighten the other boys.
Teacher: Use present tense consistently
Student: Jack uses the beast to frighten the other boys.
Student: And, he uses the beast for power.

(Classroom Conversation)

Procedure in Group 2

The instruction in Group 2 did not include references to grammar or metalinguistic explanations. All classroom discussions focused entirely on content because students talk about literature came to the fore in CBI classes and corrective feedback on form was limited to recasts. Recasts were effective to edit the discourse and repair the conversational breakdowns. Lyster and Ranta (1997) argue that learners in CBI classes may perceive recasts as feedback on meaning. In the following example, discussion is used to construct and negotiate knowledge by the discourse contexts of interaction. The instructor provided recasts to stimulate the student to express the meaning precisely in order to seek constructive ways and to express the meaning precisely.

Teacher: How can you explain Gatsby's greedy pursuit of wealth?
Student: He influences Daisy.
Teacher: He wants to impress Daisy.

Student: Yes, he wants to impress Daisy.
Teacher: Why do you think he wants to impress Daisy?
Student: He wants to impress Daisy. In fact, he wants to get happiness. He has dream of happiness with Daisy.
Teacher: Good point! He is in pursuit of happiness. Let's consider this point a bit further.

(Classroom Conversation)

Procedure in Group 3

The instruction in Group 3 included metalinguistic explanations and references to grammar in meaningful comprehensible input to promote grammatical accuracy development. Both explicit and implicit corrective feedback was used to maximize language development. Literature discussions are strong potential foundations for grammatically richer intake and meaningful communication establishment. Drawing attention to errors and giving corrective feedback in Group 3, as shown in the following example, provided some of the strongest rationales for students to attend to accuracy in communicative activities. Students in Group 3 made appropriate use of form-meaning connections in literature discussions and had a number of distinct advantages to develop accuracy and fluency.

Teacher: What is the climax in *Lord of the Flies*?
Student: Simon understood that the beast doesn't exist.
Teacher: He realized that the beast …
Student: He realized that the beast didn't exist.
Teacher: Good Point!
Teacher: Then what happened to him?
Student: The other boys killed him with savage.
Teacher: They killed him savagely.
Student: Yes, they killed him savagely and problems started on the island.
Teacher: What problems started on the island?
Student: The boys started doing evil things.
Teacher: Savagery prevails on the island.
Student: Yes, after the death of Simon we see big changes and serious problems.
Teacher: Good! Can you explain that a bit more?
Student: The boys were not civilized, they became savage. Although everything started well at the beginning, the control was lost soon. It is like the power of violence charmed the boys.
Teacher: Yes, the lure from civility and the allure of violence

(Classroom Conversation)

Table 2

Corrective feedback options

Options	Description
Implicit feedback	The teacher responds to students' ill-formed utterances without directly indicating that an error has been made through prompts or recasts.
Explicit feedback	The teacher responds to students' ill-formed utterances by directly indicating that an error has been made through drawing their attention to them or metalinguistic explanation.

Table 2 defines the correction feedback options that were used in the study. Both types of feedback options were used in all groups in the classroom discussions of literature. Implicit feedback included responding to the ill-formed utterances of the students indirectly to give them a chance to reformulate their utterances. Explicit feedback included responding to the incorrect utterances by directly indicating that the error should be corrected.

Data Collection and Analysis

In this study, a pre-test, a post-test and a delayed post-test were conducted to measure language progress of students. Each test consisted of two parts: grammar and vocabulary, and each part included 25 questions. The students were allowed 45 minutes to complete 50 questions in each test and the scores were given out of l00. Each group had the same tests that included multiple-choice and fill-in-the-blank questions. The students were exposed to all sorts of grammar rules and a wide variety of words in the novels. The assessment tests were prepared by the researcher based on the novels the participants read in the classes throughout the study. In other words, the vocabulary and the grammatical constructions derived from the novels were included. The tests did not differ from each other in terms of scope and format. To ensure that the tests were of similar level of difficulty, the researcher asked two of his colleagues, who work at the same department, to work closely with him. The students were not penalized for wrong answers; therefore, they did not leave any questions unanswered. The test outcomes were compared to measure student performance in relation to their vocabulary and grammar development under different treatment conditions.

Table 3

Timeline for pre- and post-assessments

Weeks	Groups	Data sources
1	All groups	Pre-test
8	All groups	Post-test
Three months after the study	All groups	Delayed post-test

The pre-test was conducted in the first week before the treatment sessions started. In the eighth week, after the treatment sessions were over, the students had the post-test. Finally, delayed post-test was conducted three months after the experiment to determine which treatment measures aided recall.

Findings

SPSS 20 was used to conduct reliability analysis in the study. Kurtosis and skewness statistics were used to examine the normality of variables. The acceptable range for kurtosis and skewness is between –2 and +2. The kurtosis and skewness of each variable fell within acceptable limits in the study in all groups. Cronbach's alpha was used to assess the reliability and internal consistency. For a classroom exam, a reliability coefficient of .70 or higher is an acceptable value for Cronbach's alpha. The alpha coefficient for all items in all groups is higher than .94, suggesting that the items have relatively high internal consistency.

Table 4 illustrates the descriptive statistics (minimum, maximum, mean, and standard deviation) for tests for all groups. The results show that students in Group 1 increased their scores on all tests. The means showed high improvement for post-test grammar and delayed-test grammar and increased from 64.0 to 74, 8, and 77 respectively. With regard to vocabulary tests, the means showed slight improvement and increased from 60.4 to 64.8 in the post-test grammar, and 66.4 in the delayed-test grammar.

The results indicate that students in Group 2 increased their scores on all tests. The means showed high improvement for post-test vocabulary and delayed-test vocabulary and increased from 58.9 to 69.9, and 72.9 respectively. With regard to grammar tests, the means showed slight improvement and increased from 66.1 to 69.3 in the post-test grammar, and 70.8 in the delayed test grammar.

Group 3 increased their scores on all tests. The means showed high improvement for all tests. The means for grammar tests increased from 63.8 to 78.1 in the post-test grammar, and 80.8 in the delayed-test grammar. With regard to vocabulary tests, the means showed improvement and increased from 61.8 to 75.4 in the post-test vocabulary, and 78.8 in the delayed-test vocabulary.

Table 4

Descriptive statistics for pre-test, post-test and delayed-test for Group 1

Types of tests	N	Minimum	Maximum	Mean	St. Deviation
Pre-test Grammar 1	20	42.0	88.0	64.0	13.50
Pre-test Grammar 2	20	44.0	86.0	66.1	10.84
Pre-test Grammar 3	20	40.0	78.0	63.8	10.38
Post-test Grammar 1	20	52.0	92.0	74.2	11.74
Post-test Grammar 2	20	52.0	88.0	69.3	9.86
Post-test Grammar 3	20	50.0	94.0	79.7	12.02
Delayed-test Grammar 1	20	52.0	94.0	77.0	12.50
Delayed-test Grammar 2	20	52.0	90.0	70.8	9.78
Delayed-test Grammar 3	20	48.0	96.0	82.6	14.25
Pre-test Vocabulary 1	20	40.0	80.0	60.4	11.67
Pre-test Vocabulary 2	20	40.0	76.0	58.9	10.73
Pre-test Vocabulary 3	20	40.0	78.0	61.8	10.25
Post-test Vocabulary 1	20	46.0	84.0	64.8	10.92
Post-test Vocabulary 2	20	48.0	90.0	69.9	12.30
Post-test Vocabulary 3	20	46.0	92.0	75.4	11.80
Delayed-test Vocabulary 1	20	48.0	86.0	66.4	10.92
Delayed-test Vocabulary 2	20	52.0	92.0	72.9	13.01
Delayed-test Vocabulary 3	20	46.0	94.0	78.8	13.16

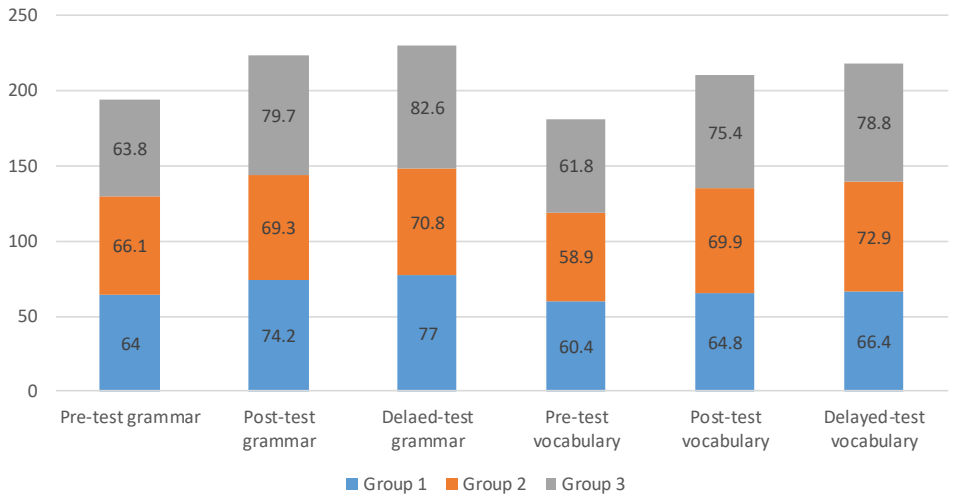

Figure 1. Means of pre-test, post-test, and delayed-test grammar and vocabulary for all groups

Figure 1 displays comparison of means for grammar and vocabulary tests which reveal that students in Group 3 showed better improvement than the other two groups and demonstrated significant gains in scores from pre-test to post-test and maintained this improvement in delayed post-test. Similarly, Group 1 outperformed Group 2 and made significant gains over time in grammar. Group 2 could not make significant gains in grammar tests. Comparison of means for vocabulary tests reveals that students in Group 3 showed better impro-vement than the other two groups and made significant gains between pre-test and post-test. Likewise, Group 2 outperformed Group 1 and made significant gains over time. Group 1 could not make significant gains in vocabulary tests.

A one-way ANOVA revealed statistically significant difference between groups in pre-test and post-test grammar results (F(2,57) = 6,42, p = .003). Also, there was a statistically significant difference between groups in pre-test and post-test vocabulary results (F(2,57) = 6,76, p = .002). Bonferroni corrected post hoc tests were run to determine whether the pairwise comparisons were significant. Bonferroni corrected post hoc tests showed that Group 3 demonstrated significantly high difference (p = .000) compared to Group 1 (.002) and Group 2 (.003). One-way ANOVA was conducted again to compare the means between delayed-test grammar and delayed-test vocabulary and it was found that there was a statistically significant difference between groups in delayed-test grammar (F(2,57) = 6,82, p = .001), and delayed-test vocabulary (F(2,57) = 6,96, p = .000). Specifically, these results suggest that treatment received by Group 3 (Mixed Approach) has an effect on the achievement of the participants.

Table 5

Grammar and vocabulary tests group comparison

		Group 1			Group 2			Group 3		
Pairs	Tests	t	df	P-Value	t	df	P-Value	t	df	P-Value
Pair 1	Grammar Pre-test 1 Grammar Post-test 1	–14.769	19.000*		–8.718	19.000*		–24.430	19.000*	
Pair 2	Grammar Post-test 1 Grammar Delayed Post-test 1	–4.222	19.000*		–2.517	19.021*		–3.500	19.002*	
Pair 1	Vocabulary Pre-test 1 Vocabulary Post-test 1	–12.815	19.000*		–15.983	19.000*		–20.168	19.000*	
Pair 2	Vocabulary Post-test 1 Vocabulary Delayed Post-test 1	–3.238	19.000*		–5.090	19.000*		–6.240	19.000*	

*Significant at P < .05

A paired samples t-test revealed a statistically significant difference between pre-test and post-test grammar results in Group 1: $t(19) = -14.8$, $p < .001$; Group 2: $t(19) = -8.8$, $p < .001$; and Group 3: $t(19) = -24.430$, $p < .001$. Similarly, the test revealed a statistically significant difference between post-test and delayed post-test grammar results in Group 1: $t(19) = -4.222$, $p < .001$; Group 2: $t(19) = -2.517$, $p < .05$; and Group 3: $t(19) = -3.500$, $p < .005$.

Also a paired samples t-test indicated that there was a statistically significant difference between pre-test and post-test vocabulary results in Group 1: $t(19) = -12.815$, $p < .001$; Group 2: $t(19) = -15.983$, $p < .001$; and Group 3: $t(19) = -20.168$, $p < .001$. Similarly, the test revealed a statistically significant difference between post-test and delayed post-test vocabulary results in Group 1: $t(19) = -3.238$, $p < .005$; Group 2: $t(19) = -5.090$, $p < .001$; and Group 3: $t(19) = -6.240$, $p < .001$.

Discussion

Pre- and post-assessments were conducted to measure students' progress under different treatments. The results of the tests showed that the experimental group (Group 3) which was exposed to mixed-approach made noticeable gains in terms of grammatical and lexical forms compared with the other two groups.

The debate whether grammar instruction in the communicative classroom should be provided or not have posed two extremes: while some advocate minimal attention to grammar, some advocate ample attention and integrate the knowledge into communicative activities (Sheen, 2002). In the realm of the language classroom, some linguistic features are acquired without guided attention; conversely, it is evident that some linguistic features do not develop in the absence of intentional effort (Spada & Lightbown, 2008). The study shows that FFI treatment in Group 2 outperformed CBI treatment in Group 3 on the grammar component. It has been suggested by linguists and practitioners alike that some form of grammatical instruction should be included in language programs because a lack of grammatical accuracy is an obstacle for not developing native-like abilities in written or oral language proficiency (Millard, 2000). Production of correct and advanced language and appropriate use of language units help language learners keep interactions going; therefore, promotes their access to language input (Krashen, 1982). There is a growing consensus that some language features do not appear in learners' use of language without FFI (Spada & Lighbown, 2008). When criteria by Long (1991) and Norris and Ortega (2000) are followed, it is feasible that they emphasize on both the need for communication and form-oriented instruction.

Another issue to point out is that CBI treatment in the study is more effective than FFI treatment on the vocabulary component. Nation and Webb (2011) argue that CBI provides clear advantages for vocabulary learning. The core premise of Communicative Language Teaching is that learners need a reason to talk, in other words learners should be provided a genuine purpose in which the emphasis is on information exchange and meaning negotiation by utilizing meaningful contexts (Millard, 2000). Further, as Brown (1994) stresses, language is spoken at the discourse level rather than sentence level because meanings are not acquired from isolated individual sentences but from "referents in both previous sentences and following sentences" (p. 235). However, it is uncommon for language learners to arrive at high levels of linguistic competence from engaging in entirely meaning-focused instruction. When grammar scores of CBI treatment are examined, it is noticed that they seemed to lack language accuracy. Swain (1993) discovered that without exposure to language forms, simply learning in context does not lead to real gains in achieving the desired outcomes in proficiency level. In a meaning-based classroom "learners are usually not specifically taught the strategies, maxims and organizational principles that govern communicative language use but are expected to work these out for themselves through extensive task engagement" (Celce-Murcia, Dörnyei, & Thurrell, 1997, p. 141) because meaning-based instruction aims to enhance ability of learners to communicate in real-life settings. This engagement provides learners with an ample amount of target language samples that may develop their sociolinguistic, discourse, strategic and linguistic competence (Barrot, 2014). However, the sufficiency of meaning-focused instruction has been questioned (Long, 1996; Larsen-Freeman & Long, 1991). For instance, Swain (1995) proposes that learners not only involve in communicative language use but also attend to form to master the language. In Doughty's (2001) view, "the factor that distinguishes focus-on-form from other pedagogical approaches is the requirement that focus on form involves learners' briefly and perhaps simultaneously attending to form, meaning and use during one cognitive event" (p. 211) as FFI helps learners make more efficient use of linguistic forms in meaning-focused language use. The acquisition of linguistic forms through exposure to instructional intervention enables learners to use the language with greater fluency and accuracy (Spada & Lightbown, 2008).

Treatment 3 was shown to be effective in that the learners made measurable gains on both grammar and vocabulary components. The inability of communicative ESL teaching alone has led to providing implicit focus on grammar during communicative language teaching without revival of traditional grammar-based language instruction in the EFL situation (Fotos, 1998; Fotos & Hinkel, 2007). EFL syllabus design, in which the entire lesson content comprises grammar points, is ineffective. Long (1988) notes that teaching grammatical forms in

isolation, fails to advance learners' ability to utilize forms for communicative language use. Correspondingly, he suggests that communicative syllabus which neglects grammar instruction is inadequate in EFL pedagogy. Thus, combining communicative language use with grammar instruction provides for learners clear advantages to perceive the characteristics of target structures in context and improve their accuracy (Fotos, 1998; Baecher, Farnsworth, & Ediger, 2014; Zarobea & Cenoz, 2015). Also, it was seen that the students were able to retain newly acquired knowledge for a long time when form and content was integrated in the language classroom.

Conclusion

The present study has highlighted the premise that the integration of FFI and CBI within classroom discussions of literature is a powerful approach to help learners make form–meaning connections and measurable gains in language learning outcomes. FFI draws attention of learners to target features to reach high levels of linguistic competence. The acquisition of linguistic forms provides clear advantages for language learners to perceive the characteristics of target structures in context and use the language with greater accuracy. CBI is the simultaneous study of language and content. CBI provides optimal conditions for language learning in which learners use the target language as a medium of communication rather than a means of instruction for analysis. Content-based classrooms provide language learners occasions to negotiate form and meaning and promote their knowledge. Language learners construct knowledge and negotiate through the discourse contexts of interaction. CBI situates the comprehensible input at the core of language acquisition. Any content material that addresses to the cognitive needs of learners and with the language input can be used to develop their language skills and, at the same time, help them become knowledge-powered individuals. The impetus of CBI to impact verbal interaction of language learners motivates them for successful outcomes. An integrated approach which focuses on both form and content led to real gains in language learning. The study revealed that collaborating FFI and CBI within classroom discussions of literature is an optimal path for language learners to attend to language forms within communicative practice and creates them occasions to negotiate form and meaning. The provision of language forms in meaning-based tasks is an optimal path for language learners to achieve the desired outcomes for language proficiency development through building grammar and vocabulary knowledge.

Limitations of the Study

The number of participants and materials in the study is limited. A large sample size would reveal more accurate information; thereby, the study calls for further investigation with an increased number of participants and materials to have better insights into the effectiveness of literature discussions in the language classroom on speech production. The present study used novels in discussions. Further research would be truly beneficial in which different literary genres are used to measure gains of students in the development of language proficiency.

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Çağrı Tuğrul Mart

Die Integration von Form und Inhalt in den Diskussionen über die Literatur in einer Klasse mit erweitertem Fremdsprachenunterricht

Zusammenfassung

In Anbetracht dessen, dass sowohl das Unterrichten von formalen Aspekten (engl. *form-focused instruction*), als auch das inhaltsorientierte Unterrichten einer Fremdsprache (engl. *content-focused instruction*) bestimmte Vor- und Nachteile aufweisen, gewährleistet die Integration der beiden Unterrichtskonzepte und deren Einbeziehung in einen auf literarischen Texten basierten Fremdsprachenunterricht aufgrund ihrer gegenseitigen Komplementarität

einen idealen Kontext. Solche Methode ermöglicht den Schülern, Sprachmuster in einem Kontext zu erkennen und einen sinnvollen Diskurs auszulösen. Darüber hinaus hat sie einen positiven Einfluss auf den Fachunterricht. Das Ziel der dargestellten Untersuchung war es, eine Diagnose zu stellen, wie effektiv das Fremdsprachenlernen durch die Integration von formalen Aspekten und der Inhaltsorientierung im Fremdsprachenunterricht im Falle eines literaturbasierten Lehrprogramms sein kann. An dieser quasi-experimentellen Untersuchung nahmen 60 Studierende eines Lehrerstudiums teil (Englisch als Fremdsprache). Es wurde festgestellt, dass die integrative Methode als Werkzeug für die Entwicklung von Sprachkompetenzen dienen kann, weil die Schüler wesentliche Fortschritte in Bezug auf die Erweiterung ihrer grammatischen und lexikalischen Kenntnisse aufweisen.

Schlüsselwörter: Unterrichten von formalen Aspekten einer Fremdsprache, das inhaltsorientiere Unterrichten, Integration, Sprachentwicklung, Korrektheit

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Focus and Effects of Peer and Machine Feedback on Chinese University EFL Learners' Revisions of English Argumentative Essays

Abstract

The present mixed-method study examined the focus and effects of peer and machine feedback on the revisions of English argumentative essays. The study collected data from 127 Chinese university EFL learners, which included Draft 1, peer feedback (PF), PF-based Draft 2, machine feedback (MF), MF-based Draft 2, questionnaires, and interview recordings. The main findings were: (a) peer feedback was primarily concerned with content errors while machine feedback mainly involved language errors, (b) significant differences occurred in most types of errors between Draft 1, PF and PF-based Draft 2, and between Draft 1, MF, and MF-based Draft 2, (c) the uptake of 'introducing a new topic in Conclusion' was a powerful predictor of PF-based Draft 2 scores, and (d) the participants generally moderately considered peer and machine feedback to be useful. Based on the findings, some implications are discussed on how to better implement and enhance the quality of peer and machine feedback.

Keywords: peer feedback, machine feedback, focus, effect, rewrite, argumentative essay

Introduction

As an essential component of students' academic development in a second/foreign language (SL/FL), writing requires a considerable amount of time and effort since it involves higher order thinking, which makes it very challenging for many SL/FL writers (Cope et al., 2011; Dikli & Bleyle, 2014). Consequently, feedback plays a critical role in enhancing the quality of students' compositions. Nevertheless, assessing writing and providing feedback are also time-consuming and challenging. This is why though teacher feedback is more

effective (Goldstein, 2004; Hattie & Timperley, 2007; Keh, 1990; Sterna & Solomo, 2006; Vardi, 2009), machine and peer feedback has been developed and implemented in both classroom and other learning situations (Allen & Katayama, 2016; Shintani, 2015). Even though both peer review and machine feedback have proved to have positive effects on SL/FL learners' rewrites (Caulk, 1994; Hyland & Hyland, 2006; Rollinson, 2005; Rollinson, 1998, 2005; Topping, 1998; Yu & Lee, 2015), conflicts always exist about the actual effects (Anson, 2006; Xie, Ke & Sharma, 2008). Few studies have examined peer and machine feedback simultaneously either. Moreover, considering that accuracy is both an important and frustrating issue in writing (Li, Link & Hegelheimer, 2015), it is worthwhile to analyze more specifically the impact of peer and machine feedback on the quality of SL/FL learners' rewrites. For these reasons, the present mixed-method study, targeting Chinese university EFL (English as a FL) learners, explored the focus and effects of peer and machine feedback on learners' rewrites of English argumentative essays.

Literature Review

Defined as the "information with which a learner can confirm, add to, overwrite, tune, or restructure information in memory, whether that information is domain knowledge, meta-cognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies" (Winne & Butler, 1994, pp. 5740), feedback has been long held to facilitate the learning of SLs/FLs (Ellis, 2011; Ferris, 2010; Hattie & Timperley, 2007).

Peer Feedback

Student peer assessment (review/feedback) (PA) refers to an educational arrangement in which students assess the quality of their peers' work and provide feedback (Dochy, Segers, & Sluijsmans, 1999). There have been many studies on the results of PA in relation to grading and student satisfaction, as well as on effective organization of PA in higher education (Cho & Schunn, 2005; Gielen et al., 2010; Ion, Barrera-Corominas & Tomàs-Folch, 2016; Kulkarni, Bernstein & Klemmer, 2015; Lin & Yang, 2011; Rollinson, 1998, 2005; Topping, 1998; Xie et al., 2008). Though some studies reveal that PA has little or even negative effect on SL/FL learners' writing (Xie et al., 2008), more studies show that peer readers can provide useful feedback (Caulk, 1994; Rollinson, 1998, 2005; Topping, 1998; Yu & Lee, 2015). Topping's (1998) review indicated that

PA was of adequate reliability and validity in a wide variety of applications and had positive formative effects on student achievement and attitudes. Ion et al.'s (2016) analyses of 637 feedback units showed that peer feedback helped students better develop the task in their writing.

In addition, trained PA can be more effective (Ellis, 2011; Kulkarni et al., 2015; Min, 2006). For example, Min (2006) examined the impact of trained responders' feedback on EFL college students' revisions in terms of revision types and quality. After a four-hour in-class demonstration of how to do peer review and a one-hour after-class reviewer-teacher conference with 18 students, the instructor-researcher collected students' first drafts and revisions, as well as reviewers' written feedback, and compared them with those produced prior to training. The results indicated that students incorporated a significantly higher number of reviewers' comments into revisions after the peer review training, and that the number of revisions with enhanced quality was significantly higher than that before the peer review training. The researcher thus concluded that trained peer review feedback could positively impact EFL students' revision types and quality of texts, supported by a subsequent study (Liu & Chai, 2009).

Moreover, peer feedback proves to be beneficial to students in other aspects (Ellis, 2011; Kurt & Atay, 2007; Lundstrom & Baker, 2009; Miao et al., 2006). Miao et al. (2006) examined peer and teacher feedback on essays of the same topic written by Chinese University EFL learners. Analyses of student texts, questionnaires, video recordings and interview transcripts revealed that peer feedback improved student autonomy thought it was less adopted in students' rewrites. Kurt and Atay's (2007) eight-week experimental study of 86 Turkish prospective teachers (PTs) of English showed that the peer feedback group experienced significantly less writing anxiety than the teacher feedback group at the end of the study. The study also revealed that the peer feedback process helped the PTs become aware of their mistakes and helped them look at their essays from a different perspective. Lundstrom and Baker (2009) did a study with 91 university students in nine writing classes at two proficiency levels to see which was more beneficial to improving student writing: giving or receiving peer feedback. The results indicated that the givers, who focused solely on reviewing peers' writing, made more significant gains in their own writing over the course of the semester than did the receivers, who focused solely on how to use peer feedback.

Machine Feedback

As technology develops, machine feedback becomes possible via computers and internet. The technology often used for feedback on writing is Automated Writing Evaluation (AWE) software which generates automated scores based

on techniques such as artificial intelligence, natural language processing and latent semantic analysis (Philips, 2007; Shermis & Burstein, 2003; Ullmann, 2019), and provides written feedback in the form of general comments, specific comments and/or corrections (Stevenson & Phakiti, 2014). In recent years, using AWE to provide feedback in the writing classroom has steadily increased, such as Project Essay GraderTM (PEG), e-rater, Intelligent Essay AssessorTM (IEA), and IntelliMetricTM (Stevenson & Phakiti, 2014). In China, the most widely used is www.pigai.org.[1] While many scholars applaud AWE as a means of freeing instructors from marking assignments and enabling them to devote more to writing instruction (Hyland & Hyland, 2006; Philips, 2007; Ullmann, 2019), others doubt whether AWE is capable of providing accurate and effective feedback (Anson, 2006).

For example, Li et al. (2015) used mixed-methods to investigate how Criterion1 affected writing instruction and performance. Four ESL writing instructors and 70 non-native English-speaking students participated in the study. The results showed that Criterion1 led to increased revisions and that the corrective feedback from Criterion1 improved accuracy from a rough to a final draft. AbuSeileek and Abualsha'r (2014) investigated the effect of computer-mediated corrective feedback on 64 EFL learners' performance in writing over the course of eight weeks. The participants were randomly assigned to either a no-feedback control condition or a corrective feedback condition. The researchers found that students who received computer-mediated corrective feedback while writing achieved better results in their overall test scores than students in the control condition who did not receive feedback. Cheng (2017) employed a mixed-method to investigate the impact of online automated feedback (OAF) on the quality of 138 university students' reflective journals in a 13-week EFL course. The findings showed that the experimental group outperformed the control group in the overall score of the final reflective journal and demonstrated a significant improvement in scores across reflective journals. The results of these two studies show that AWE has a positive impact on the quality of students' writing, supporting those of earlier studies (Chen & Cheng, 2008; Warschauer & Ware, 2006). Ullmann's (2019) study of 76 essays showed that the automated analysis was immediate, scalable, and only on average 10% less accurate than the manual analysis.

Even so, Stevenson and Phakiti's (2014) review found little evidence for positive effects of AWE on the quality students' rewrites based on AWE. Stevenson and Phakiti (2014) attributed this to little research, heterogeneity of existing research, the mixed nature of research findings, and methodological issues. Other explanations are that computers do not possess human

[1] The most popular online platform which provides feedback on and assesses English writing automatically in China. Users create accounts on it first, upload their writing and then receive feedback immediately on it.

inferencing skills and background knowledge (Anson, 2006) and that AWE-generated comments primarily focus on grammar in writing (Hyland & Hyland, 2006). This may be why AWE-generated feedback is less acceptable to students than teacher feedback (Dikli & Bleyle, 2014). Dikli and Bleyle (2014) investigated the use of an AES system on 14 advanced students from various linguistic backgrounds in a college ESL writing classroom. The findings showed that the instructor provided more and better quality feedback and the AES system.

Rationale for the Study

As reviewed, there have been many studies on the results of peer and machine feedback in relation to grading and students' compositions (Bijami et al., 2013; Cho & Schunn, 2005; Gielen et al., 2010; Kulkarni et al., 2015; Lin & Yang, 2011; Rollinson, 1998, 2005; Topping, 1998; Xie et al., 2008). However, little has been said as to the focus of peer and machine feedback in educational designs (AbuSeileek & Abualsha'r, 2014). Few studies have simultaneously examined peer and machine feedback either. More insight into the nature of peer and machine feedback would indicate more clearly how technology and students could be more helpful in SL/FL writing and what kind of assistance teachers should preferably provide. For example, if technology and peers can provide useful feedback on grammar, teachers can direct their assistance more to textual coherence or content (AbuSeileek & Abualsha'r, 2014). Moreover, since writing accuracy is both an important and frustrating issue (Li et al., 2015), it is worthwhile to examine more specifically the focus and effects of peer and machine feedback on the quality of SL/FL learners' writing. For these reasons as well as the intent to make better use of peer and machine feedback, the present study adopted mixed methods to explore the focus and effects of peer and machine feedback on Chinese university EFL learners' rewrites of English argumentative essays. To achieve this purpose, the following research questions were formulated:

(1) What is the respective focus of peer and machine feedback on students' English argumentative essays?

(2) How does peer and machine feedback impact students' rewrites of English argumentative essays?

Research Design

Context

The present research was conducted in a highly accredited university in Beijing, where English reading and writing courses were compulsory to undergraduate non-English majors. Upon entering the university, all non-English majors took a standardized English placement test, the results of which put the students into three band levels (a higher band level meant higher English proficiency). Based on their band levels, the students registered in compulsory and optional English courses accordingly. The majority fell into band level 2 and were required to take the English Argumentative Reading and Writing course, which contextualized the present study. The respondents of this study were randomly selected from those registered in the course taught by the same instructor. The students met the instructor once a week for a 90-minute period, who were required to write three long argumentative essays (more than 400 words) as well as a few short ones (about 100 words) during the 16-week semester. The instructor, PhD in Applied Linguistics, had been publishing widely in international journals and teaching the course for five years. In class, the students and the instructor discussed the techniques related to English argumentative essay reading and writing such as text structure, statement of arguments, paragraph structure, argument-developing skills, use of evidence, cohesion and coherence, and use of references. Adopting the process approach to writing, the instructor stressed the importance of revision and encouraged students to revise their drafts on the same composition at least twice from different sources: teacher feedback, peer comments and machine feedback. Prior to writing, a 30-minute peer review training based on Kramer, Leggett and Mead's scheme (1995) was arranged in class, which covered both content and language errors with more focus on content errors in that students had learned English grammar systematically but had not been trained how to write English argumentative essays effectively in previous schooling. Then students practiced peer review for each subsequent assigned writing task. Once a writing assignment was finished, each student sent his/her writing to the instructor, a peer, and www.pigai.org, independently. The instructor provided feedback electronically on each draft at sentence, paragraph and text levels, then gave a 25-minute summary report of the feedback and had individual discussions about the feedback when required by the students in the subsequent class; students assessed their peers' writing either electronically or in paper and must finish it within two days upon receiving the writing; www.pigai.org generated feedback in both Chinese and English (namely,

machine feedback in the present research) immediately upon receiving the submission. To avoid cross impact, students were required to revise their writing separately upon receiving different types of feedback.

Participants

127 (102 male and 25 female) students participated in the present study and answered the questionnaires related to their background information and perceptions of peer and machine feedback, of whom 64 were interviewed for their verbal perceptions about peer and machine feedback. Meanwhile, the first and second drafts of the same composition of 111 students, as well as peer and machine feedback, were complete for analyses. With an age range of 16–27 and an average of 19.42, the participants were from various disciplines such as civil engineering, mathematics, chemistry, and architecture. Prior to the course, they had never taken an English Argumentative Writing course.

Instruments

The collected data in the present study included interview transcripts, peer feedback (PF), machine feedback (MF), student draft 1, PF-based draft 2, MF-based draft 2, and writing scores, as detailed below.

Student texts. Draft 1, peer feedback, PF-based Draft 2, machine feedback, and MF-based Draft 2 of the course's second composition on global warming were collected. Based on student consent and the completeness of both drafts, 111 compositions of each draft as well as peer and machine feedback were finally collected for analyses.

Writing scores. The scores of each draft were collected, which was rated by the instructor on a scale of 1–15 in terms of text structure, power of argumentation, coherence, grammar and use of words (Appendix I).

Perceptions of peer and machine feedback questionnaire. This 14-item Perceptions of Peer and Machine Feedback Questionnaire (PPMFQ) was self-developed to investigate students' attitudes towards peer and machine feedback in terms of their roles and usefulness in their composition revisions. The questionnaire involved such issues as grammar, use of words, expression of viewpoints, use of evidence and references, which are crucial elements of argumentative essays (Wyrick, 2008). All the items were placed on a 7-point Likert Scale, ranging from 'Strongly Disagree' to 'Strongly Agree' with values of 1–7 assigned to each of the alternatives respectively.

Informal semi-structured interview. The informal semi-structured interview guide covered such questions concerning teacher feedback, peer and

machine feedback, their advantages, disadvantages and effects on composition revisions.

The background questionnaire. The background questionnaire aimed to collect informants' personal information such as age, gender, and major.

Procedure

Data were collected during weeks 7–9 of the semester when the second argumentative essay on global warming was assigned with the instructor's consent. To help students better understand the nature of argumentative essays, prompts on the task were provided such as effects of global warming on agriculture and major cause for global warming. Draft 1 was finished and submitted to the instructor, peers and www.pigai.org online (an account was created for the class beforehand) in week 7, followed by peer feedback within two days and immediate machine feedback, respectively. Based on the feedback, students revised their Drafts 1 independently according to the peer and machine feedback they had received respectively, and then submitted the rewrites to the instructor thereafter. Piloted to two students who had took the same course in the previous semester, the questionnaire was slightly modified, and then distributed to students together with a consent form who answered them in about 10 minutes in week 9's class meeting. According to their consent forms, a total of 64 students was informally interviewed by two research assistants thereafter in week 9. Each time, two students were interviewed together, which was mainly conducted in Chinese, recorded and lasted for 15–20 minutes.

Data Analyses

Since a writer needs to utilize an established language system to organize and present ideas in a certain mode in writing, the present study analyzed student texts and feedback in terms of both grammar and content. For this purpose, this study categorized errors with reference to the revision scheme in Kramer et al. (1995). The scheme (see Appendix II) used in the present study covered four types of errors: content errors (nine aspects involving failure to show a controlling idea, improper topic sentence and failure to achieve paragraph coherence, etc.), mechanical errors (misspelling, punctuation, and capitalization errors), syntactical errors (errors involving tense, part of speech, article, verb, adjective/adverb degree, agreement, and case, etc.), and lexical errors (errors in word formation, word choice, collocation, and unclear expression). Draft 1, PF-based Draft 2 and MF-based Draft 2 were

analyzed carefully according to the scheme to identify the errors students made in their writing. All the analyses were done by two research assistants with an overall inter-rater coefficient of .91. Then the number of each type of error was counted for each text. The results were then analyzed via SPSS 20 to explore the distribution of and differences in different types of errors between Draft 1, peer feedback, PF-based Draft 2, machine feedback and MF-based Draft 2. To explore the effects of peer feedback on student revisions, Draft 1 and PF-based Draft 2 were compared to count and compute the uptake of peer feedback in the corresponding rewrites, so were Draft 1 and MF-based Draft 2. Then, multiple regression analyses were run, with scores of PF-based and MF-based Draft 2s being the dependent variable and the uptake of peer and machine feedback of errors of different types being independent variables.

The survey data were computed via SPSS 20. The mean and standard deviation of each survey item were computed to determine how students perceived peer and machine feedback respectively. The interview recordings were first transcribed, double-checked and then subjected to thematic content analyses by the two research assistants respectively with an inter-rater reliability of .932 (Charmaz, 2006). The themes were then generalized, counted, and supported with excerpts from the interviewees' comments. Example themes were strengths of peer feedback, weaknesses of machine feedback, benefits of peer and machine feedback. When reporting the comments, a number was used for each interviewee for the sake of privacy and convenience.

Results

Text Analyses Results

Distribution of errors. Preliminary analyses of peer feedback showed that students commented on content errors in specific places of their peers' writing but provided very general comments on language problems such as 'There are lots of grammatical errors in the essay' in the writing. By contrast, www.pigai.org generated fairly specific suggestions on language problems but offered no content-related suggestions in students' writing. Consequently, further analyses of PF and PF-based Draft 2 focused on content errors while those of MF and MF-based Draft 2 focused on language errors. The errors in Draft 1, PF, PF-based Draft 2, MF, and MF-based Draft 2, were coded and counted, which were then analyzed in terms of mean and standard deviation (see Table 1).

Table 1

Means and standard deviations of errors in student texts, PF and MF (N = 111)

Error types	Draft 1		PF		PF-based Draft		MF		MF-based Draft 2	
	M	SD	M	SD	M	SD	M	SD	M	SD
C1	.62	.68	.095	.30	.14	.35				
C2	.50	.76	.65	.72	.25	.51				
C3	1.19	1.43	.32	.47	.54	.53				
C4	.36	.74	.16	.41	.16	.41				
C5	.21	.45	.02	.13	.14	.35				
C6	.21	.47	.03	.18	.095	.30				
C7	.299	.46	.54	.69	.19	.396				
C8	.31	.46	.87	1.02	.21	.41				
C9	.25	.43	.00	.00	.02	.13				
TotalC	3.96	2.81	2.68	1.68	1.75	1.37				
ME	1.07	2.41					.91	2.49	.51	.84
SS1	1.19	1.76					.397	.64	.856	1.27
SS2	1.68	1.77					.286	.96	1.22	1.62
SS3	1.22	1.21					1.79	1.68	.48	.79
SS4	.83	1.18					.302	.59	.58	.91
SS5	.09	.34					.064	.25	.04	.198
SS6	2.67	2.22					.73	.95	2.20	2.22
SS7	1.49	1.51					.524	.95	.92	.95
SS8	.15	.42					.032	.25	.102	.31
SS9	.09	.29					.00	.00	.02	.14
SS10	.55	1.09					.032	.25	.469	.92
SS11	.79	.94					.206	.48	.469	.74
SS12	.11	.47					.00	.00	.00	.00
SS13	.26	.79					.048	.28	.265	.73
SS14	.07	.25					.064	.30	.082	.28
SS15	.14	.51					.032	.18	.327	.63
SS16	.73	.82					.095	.39	.56	.79
TotalSS	13.09	5.96					4.97	3.35	8.46	4.16
LE1	.06	.27					.00	.00	.02	.14
LE2	2.13	2.02					.238	.67	1.52	1.89
LE3	1.25	1.25					1.44	1.47	.92	1.12
LE4	1.25	1.11					.016	.13	.76	.87
TotalLE	4.68	2.32					1.698	1.58	3.22	2.09
grammar							.365	.87	.00	.00
TotalE	21.74	8.15					7.03	4.28	13.72	5.67
Writing score	11.38	1.83					11.77	1.67	11.48	1.789

Notes: Please refer to Appendix I for the abbreviations of error types.

TotalC = total number of content errors; TotalSS = total number of syntactic errors; TotalLE = total number of lexical errors; TotalE = total number of errors

As seen from Table 1, the errors with highest mean scores in Draft 1 were SE6 (article errors) (mean = 2.67), LE2 (word choice errors) (mean = 2.13), SE2 (tense errors) (mean = 1.68), SE7 (errors of plural or singular nouns) (mean = 1.49), LE3 (collocation errors) (mean = 1.25), LE4 (unclear expressions) (mean = 1.25), SE3 (agreement errors) (mean = 1.22), SE1 (errors in part of speech) (mean = 1.19), C3 (failure to provide adequate evidence) (mean = 1.19), and ME (mechanical errors) (mean = 1.07). Peer feedback predominantly focused on content errors, barely involving syntactic errors except for such comments as "there are many tense errors in the writing" or "grammatical errors are too many" (comments like these were not counted in the final analyses in the paper because they were not specific). The means of content errors ranged from 0 (C9-introducing a new topic in Conclusion) to 1.02 (C8-inconsistency between the conclusion and the main argument). On the other hand, machine feedback was solely concerned with mechanical, syntactic and lexical errors. The errors in MF ranged from 0 (SE12-illogical comparison or ill parallelism) to 1.79 (SE3), and errors with highest mean scores were SE3 (agreement errors) (mean = 1.79), LE3 (collocation errors) (mean = 1.44), ME (mechanical errors) (mean = .91), SE6 (article errors) (mean = .73), and SE7 (errors of plural or singular nouns) (mean = .524).

Since PF and MF focused on certain aspects of Draft 1, most of which were incorporated into respective rewrites, the analyses of Draft 2 focused on the type of feedback students received correspondingly. As reported in Table 1, the mean scores of content errors ranged from .02 (C9) to .54 (C3) in PF-based rewrites and from 0 (SE12) to 2.20 (SE6) in MF-based rewrites.

Comparison of mean scores of the errors across Draft 1, PF, and PF-based Draft 2 shows that all content errors scored the highest in Draft 1 and that most content errors scored higher in PF than in PF-based Draft 2. Paired samples t-test results (see Table 2) indicated that Draft 1 differed significantly from PF in all types of content errors except C2 (improper topic sentence/no controlling idea/no topic sentence), largely with a small or medium effect size. Namely, significantly more content errors of all types existed in Draft 1 than identified by peers. Table 2 also shows that PF differed significantly from PF-based Draft 2 in C2 (t = 3.97), C3 (failure to provide adequate evidence) (t = –2.50), C5 (lack of the power of the argument/weak arguments or evidence) (t = –2.65), C7 (fail to achieve paragraph coherence: poor organization/Lack or misuse of transitional markers) (t = 3.73), C8 (inconsistency between the conclusion and the main argument) (t = 4.66), and TotalC (t = 3.66). Alternatively, significantly more errors of C2, C7, C8, and TotalC (total content errors) were identified in PF than in PF-based Draft 2, but the latter had significantly more errors of C3 and C5 than in the former. Yet Draft 1 had significantly more errors of C1 (failure to show a controlling idea/More than one controlling idea) (t = 5.47), C2 (t = 3.16), C3 (t = 4.10), C7 (t = 2.31), C9 (introducing a new topic in Conclusion) (t = 2.78), and TotalC (t = 5.88) than in PF-based Draft 2.

A similar pattern was observed for Draft 1, MF, and MF-based Draft 2, as reported in Table 1. Mechanical errors and most syntactic and lexical errors scored the highest in Draft 1, and errors of some types scored higher in MF than in MF-based Draft 2 while it was reversed for errors of other types. Paired samples t-test results (see Table 3) demonstrated that Draft 1 differed significantly from MF in all syntactic errors except SE5 (adjective/adverb degree errors), SE12 (errors of illogical comparison or ill parallelism), SE13 (errors of sentence fragments/run-on sentence/dangling modifiers), SE14 (errors of mixed or confused expression and sentence structure), SE15 (missing a part of the sentence), and all lexical errors except LE1 (errors in word formation) and LE3 (errors in collocations). Namely, significantly more errors of most types were identified in Draft 1 than in MF except SE3 (errors in agreement) and LE3. Table 3 also suggests that MF identified significantly more errors of SE3 but significantly fewer errors of SE1 (errors in part of speech), SE2 (tense errors), SE6 (articles errors), SE10 (errors in word order), SE11 (errors in coordinating conjunctions and subordinating conjunctions), SE16 (overuse of a part of the sentence), TotalSE (total syntactic errors), LE2 (errors in word choice), LE4 (unclear or incomplete expressions), TotalLE (total lexical errors), and TotalE (total errors) than in MF-based Draft 2. In addition, Draft 1 had significantly more errors in SE2 (tense errors), SE3 (errors in agreement), SE6 (articles errors), SE7 (errors in the use of plural or singular forms/uncountable nouns), SE11 (errors in coordinating conjunctions and subordinating conjunctions), SE15 (missing a part of the sentence), SE16 (overuse of a part of the sentence), TotalSE, LE2, LE3, LE4, TotalLE, and TotalE than in MF-based Draft 2.

Table 2

Paired samples t-test results of peer feedback (N = 111) (degree of freedom = 110)

	Draft 1 & PF			PF & PF-based Draft 2			Drafts 1 & PF-based 2		
	t	p	d	t	p	d	t	p	d
C1	5.17	.000	0.99	–.77	.443	/	5.47	.000	1.04
C2	–1.18	.241	/	3.97	.000	0.76	3.16	.002	0.60
C3	4.55	.000	0.87	–2.50	.015	-0.48	4.10	.000	0.78
C4	2.83	.006	0.54	.00	1.00	/	1.52	.133	/
C5	3.02	.004	0.58	–2.65	.010	-0.51	1.35	.182	/
C6	2.18	.033	0.42	.39	.698	/	.629	.531	/
C7	–2.795	.007	–0.53	3.73	.000	0.71	2.31	.024	
C8	–4.35	.000	–0.83	4.66	.000	0.89	1.43	.159	/
C9	3.00	.004	0.57	–1.00	.321	/	2.78	.007	0.44
TotalC	2.46	.017	0.47	3.66	.001	0.70	5.88	.000	1.12
Score							–1.52	.131	/

Notes: effect size of Cohen's d: small = d ≤ 0.2; medium = d = 0.5; large = d ≥ 0.8 (Cohen, 1988)

Table 3

Paired samples t-test results of machine feedback (N = 111) (degree of freedom = 110)

Error types	Draft 1 & MF			MF & MF-based Draft 2			Drafts 1 & MF-based 2		
	t	p	d	t	p	d	t	p	d
ME	.56	.58	/	1.01	.319	/	1.39	.172	/
SS1	3.10	.003	0.59	–2.40	.020	–0.46	1.37	.177	/
SS2	6.12	.000	1.17	–3.31	.002	–0.63	2.18	.034	0.42
SS3	–2.79	.007	–053.	5.13	.000	0.98	4.67	.000	0.89
SS4	2.25	.028	0.43	–1.70	.096	/	–.72	.472	/
SS5	.38	.709	/	1.43	.159	/	1.00	.322	/
SS6	6.20	.000	1.18	–3.99	.000	–0.76	2.99	.004	0.57
SS7	4.38	.000	0.84	–1.76	.084	/	2.31	.025	0.44
SS8	2.31	.024	0.44	–1.35	.182	/	.000	1.00	/
SS9	2.56	.013	0.49	–1.00	.322	/	1.77	.083	/
SS10	4.05	.000	0.77	–3.59	.001	–0.68	.28	.785	/
SS11	4.22	.000	0.80	–2.53	.015	–0.48	2.07	.044	0.40
SS12	1.84	.070	/	.00	.000	/	1.66	.103	/
SS13	1.90	.063	/	–1.75	.086	/	–.330	.743	/
SS14	.30	.766	/	–.33	.743	/	–.57	.569	/
SS15	1.52	.135	/	–3.10	.003	–0.59	–2.22	.031	–0.42
SS16	4.93	.000	0.94	–3.52	.001	–0.67	2.06	.044	0.39
TotalSS	9.79	.000	1.87	–4.36	.000	–0.83	5.81	.000	1.11
LE1	1.00	.321	/	–1.00	.322	/	–1.00	.322	/
LE2	6.65	.000	1.27	–4.15	.000	–0.79	3.21	.002	0.61
LE3	–1.13	.263	/	1.87	.068	/	2.78	.008	0.53
LE4	8.02	.000	1.53	–6.17	.000	–1.18	3.28	.002	0.63
TotalLE	9.35	.000	1.78	–4.14	.000	-0.79	4.91	.000	0.94
TotalE	14.32	.000	2.73	–6.02	.000	–1.15	7.83	.000	1.49
Score							–1.82	.091	/

Notes: effect size of Cohen's d: small = d ≤ 0.2; medium = d = 0.5; large = d ≥ 0.8 (Cohen, 1988)

Effects of peer and machine feedback on students' rewrites. To explore the effects of peer and machine feedback on students' rewrites, multiple regression analyses were run, with PF-based and MF-based Draft 2 scores being dependent variables and the uptake of errors of different types being independent variables respectively. Regression analyses yielded no model for MF-based Draft 2 scores and 1 model for PF-based Draft 2 scores, as shown in Table 4.

Table 4

Multiple regression coefficients and significance of error predictors for PF-based Draft 2 scores

Uptake of errors	β	*t*	p	df	VIF	Cohen's f^2
C9	.261	2.11	.039	1	1.00	.012

Notes: df = degree of freedom effect size of Cohen's f2: small = f2 ≤ .02; medium = f2 = .15; large = f2 ≥ .35 (Cohen, 1988)

As shown in Table 4, with the change in R^2 being .068, C9 (introducing a new topic in Conclusion) was the only predictor ($\beta = .261$, $t = 2.11$, $f^2 = .012$) that positively predicted the scores of students' rewrites based on peer feedback.

Self-reported Results

Survey results. The mean and standard deviation of each survey item concerning peer and machine feedback were computed (see Table 5),

Table 5

Self-reported Questionnaire Result (N = 127)

Self-reported questionnaire items	PF		MF	
The feedback	Mean	SD	Mean	SD
1. improved my ability to use grammar correctly.	4.93	1.11	5.56	1.21
2. improved my ability to use vocabulary appropriately.	4.87	1.16	5.54	1.17
3. enhanced my knowledge of the structure of academic English argumentative essays.	5.28	1.15	4.06	1.46
4. improved my ability to state the main argument clearly in academic English argumentative essays.	5.22	1.18	3.95	1.43
5. improved my ability to state supporting arguments clearly in academic English argumentative essays.	5.24	1.07	3.94	1.50
6. enhanced the logic of arguing for points in my academic English argumentative essays.	5.26	1.03	3.94	1.46
7. improved the coherence and cohesion in my academic English argumentative essays.	5.01	1.14	4.38	1.47
8. improved my ability to cite properly in academic English argumentative essays.	4.67	1.17	4.06	1.58
9. improved my ability to use vocabulary formally in academic English argumentative essays.	4.63	1.23	5.08	1.19
10. improved my ability to argue adequately in academic English argumentative essays.	5.10	1.16	4.02	1.48
11. improved my ability to argue substantially in academic English argumentative essays.	5.29	1.12	3.97	1.55
12. improved my ability to use argument-developing skills in academic English argumentative writing.	4.97	1.27	4.25	1.45
13. was mostly incorporated into my revised draft.	5.33	1.18	5.20	1.35
14. was largely acceptable.	5.42	1.09	5.24	1.29

which shows that the students scored 4.63–5.42 on the Perceptions of Peer Feedback Questionnaire (PPFQ) items and 3.94–5.56 on the Perceptions of Machine Feedback Questionnaire (PMFQ) items. The five PPFQ items with the highest means were items 14 (acceptability of peer feedback) (mean = 5.42), 13 (uptake of peer feedback) (mean = 5.33), 11 (relevance between [main] claims and supporting evidence) (mean = 5.29), 6 (logic of arguing) (mean = 5.26) and 5 (statement of supporting arguments) (mean = 5.24), centering on content. The five PMFQ items with the highest means were items 1 (improved ability to use grammar) (mean = 5.56), 2 (improved ability to use vocabulary appropriately) (mean = 5.54), 14 (acceptability of machine feedback) (mean = 5.24), 13 (uptake of machine feedback) (mean = 5.33), and 9 (improved ability to use vocabulary formally) (mean = 5.08), centering on the use of expressions and grammar. These findings indicated that the students were generally moderately positive toward peer and machine feedback.

Interview results. Table 6 summarizes the interviewees' perceptions of the advantages and disadvantages of peer and machine feedback. As seen in Table 6, around 20% of the interviewees commented that peer feedback provided more communication (23.4%), more chances to learn from each other (21.3%), new perspectives (21.3%) and good advice on language use and sentence polishing (17%). According to the interviewees, peers "feel more at ease and communicate frequently when reviewing each other's writing. This helps us to understand each other's writing better" (No. 34), and could "identify problems in logic" (No. 22), peer review enabled "me to know others' views of my writing" (No. 46), and "me to be aware of similar mistakes in my own writing" (No. 51). Meanwhile, since "we peers are at a similar English proficiency level, most peer comments are not much professional or appropriate" (No. 53), and "it is difficult for us to offer specific suggestions" (No. 35).

As seen in Table 6, machine feedback could "identify language and grammar mistakes effectively" (No. 31), and "better the sentences and format in my writing" (No. 18). However, because it was a machine, it could not "identify logical problems" (No. 10) or offer any content-related suggestions on aspects like "paragraph structure, statements of main and supporting arguments, and use of evidence" (No. 25). Moreover, the machine frequently "misidentified mistakes" (No. 31).

Probably because of these reasons, 72.3% and 63.9% of the interviewees reported that peer and machine feedback was helpful to the revision of their writing, respectively. On the whole, 100% and 71.7% of the interviewees reported feeling satisfied with peer and machine feedback, respectively.

Table 6

Self-reported Perceptions of Peer and Machine Feedback (N = 64)

Feedback	Advantages	Disadvantages
PF	a) more communication (11/23.4%), b) chances to learn from each other (10/21.3%), c) new perspectives (10/21.3%), d) good advice on language use and sentence polishing (8/17%), e) suggestions being very specific (6/12.8%), f) being friendly (4/8.5%), g) feeling at ease (3/6.4%).	a) not being inclusive (15/31.9%), b) comments being not deep (12/25.5%), c) comments being not professional or appropriate (8/17%), d) time-consuming (4/8.5%).
MF	a) good and specific comments on vocabulary and grammar (38/80.9%), b) being timely (15/31.9%), c) being very convenient (6/12.8%), d) being very clear (5/10.6%).	a) having no content- related comments (40/85.1%), b) having a high mis-identification rate (13/27.7%).

Discussion

Focus of Peer and Machine Feedback

Analyses of the data showed that peer feedback primarily focused on content errors in the present study. Although the interviewees were intermediate-advanced learners, they were not confident enough to pinpoint language problems for their peers. This was also evident in the number of content errors they identified in PF, which was significantly lower than that in Draft 1. Apart from that, this might be partly attributed to the time-consuming nature of reviewing a text, which made the participants unwilling to provide detailed and specific suggestions. Meanwhile, as discussed in Yu and Lee (2015), EFL students' group peer feedback activities are often driven and defined by their motives, which are shaped and mediated by the sociocultural context. The learning context where the instructor emphasized content more than linguistic forms of argumentative writing might be partially accountable for the participants' performance in their PF in the present study. The students thus focused more on content errors correspondingly, which, nevertheless, needs to be further explored.

The present study also revealed that machine feedback was predominantly concerned with language errors, as found in Hyland and Hyland (2006). This might be because the so-called machine, though modeled on human intelligence, could still not detect human thinking to provide useful comments on contents of an essay. In addition, though it offered timely and generally accurate feedback

on language problems, it mistook the correct use of grammar and expressions to be incorrect or provided wrong suggestions for "correctly pinpointed mistakes" "at a rather high rate" (No. 62). For example, www.pigai.org marked the part 'will in' in the sentence "It will in turn lead to the large scale release of the greenhouse gas into the atmosphere" (Writing 44, Draft 1) to be wrong. This finding partially supports the view that AWE is incapable of providing accurate feedback in certain aspects (Anson, 2006). Hence, it is necessary for both instructors and learners to be cautious when utilizing machine feedback. This is especially so for learners with lower proficiency in the SL/FL who are more unlikely to distinguish wrongly identified errors by machines. Moreover, to what extent and what type of language use is identified as errors by machines need to be further researched.

Effects of Peer and Machine Feedback

Regressional analyses indicated that the uptake of 'introducing a new topic in Conclusion' was a significant predictor for students' PF-based rewrites. This might be related to the culture of writing in Chinese, which tends to bring about something new in concluding parts of an essay. This thus deserves attention in formal classroom teaching and the effects need to be further researched as well. Analyses of self-reported data showed that the participants were generally positive about peer feedback, as found in the current literature (Liu & Chai, 2009; Miao et al., 2006). Apart from positively affecting students' rewrites, peer feedback offered students chances to communicate with and learn from each other, to become (more) aware of their own mistakes, to look at their own writing from a new perspective, as found in some existing studies (Miao et al., 2006; Wang, 2014). Miao et al.'s (2006) study indicated that peer feedback helped promote student autonomy, especially in cultures which look up teachers as authority figures.

Self-reported data indicated that the participants were generally moderately positive towards machine feedback, commenting that it was good, specific, timely, clear and convenient. This suggests that machine feedback did have positive effects on the polishing of sentences in students' rewrites, consistent with the finding in many existent studies (Cheng, 2017; Hyland & Hyland, 2006; Li et al., 2015; Philips, 2007). On the other hand, machine feedback was sometimes wrong, which frustrated the participants in the present research. Because of this, students are advised not to solely rely on machine feedback and consult peers and/or the instructor when being unsure of the comments. These findings suggest that developers of such platforms/softwares have to enhance their reliability and validity and pay more attention to providing content-related feedback, which is of central importance to an essay. They also

indicate that EFL learners, especially low or low-intermediate learners, have to be cautious when using machine feedback. Writing instructors had better remind their students of this limitation of machine feedback. Otherwise, some feedback would be misleading and the uptake of such feedback would lead to (even worse) mistakes.

As illustrated in the present research, peer and machine feedback had positive effects on students' rewrites, at the same time they were not satisfactory in certain aspects. For example, peer feedback sometimes is not professional or appropriate, and superficial, as found in the present study. Thus, it is important to improve the quality of peer and machine feedback. As found in Yu and Lee (2015), student motives could have direct influence on students' participation in group peer feedback activities and their subsequent revisions. It is necessary to foster positive and constructive motives towards peer and machine feedback in students prior to revising the first drafts. Meanwhile, if peer feedback can be done anonymously, students may feel more comfortable in providing more and better feedback on different aspects of their peers' writing, as found in Lu and Bol (2007). If students become more proficient in the target language, they will be able to provide better feedback as well, so are they trained to provide peer feedback and to write (more) effectively. Integrating technology into the peer review process may also be beneficial to providing better and timely feedback (Ellis, 2011; Lin et al., 2011; Nobles & Paganucci, (2015). Nobles and Paganucci's (2015) mixed-method study of 18 high school students in a hybrid freshman English class at an independent school revealed that students perceived their writing to be of higher quality when writing with digital tools and that writing in online environments enhanced writing skill development. Kulkarni et al.'s (2015) study showed that students' final grades improved when feedback was delivered quickly, but not if delayed by 24 hours. In addition, it is equally important to train students to do peer review (Gielen et al., 2010; Liu & Carless, 2006; Rollinson, 1998). It is better for writing instructors to familiarize students with the peer review criterion and their expectations. As put in Stanley (1992, p. 230), "it is not fair to expect that students will be able to perform these demanding tasks [peer feedback] without first having been organized practice with and discussion of the skills involved." Strategies such as engaging students with criteria and embedding peer involvement within normal course processes may help promote peer feedback (Liu & Carless, 2006). Lastly, as found in Wang's (2014) investigation of 53 Chinese EFL learners' perceptions of peer feedback on their EFL writing over time, various factors affect students' perceived usefulness of peer feedback such as their knowledge of assigned essay topics, proficiency in the target language, attitudes, time constraints, and classroom environment. It is necessary for writing instructors to consider these factors when implementing peer feedback.

Conclusions

The present mixed-method study examined the focus and effects of peer and machine feedback on the rewrites of Chinese university EFL learners' English argumentative essays. The main findings were:

(1) peer feedback was primarily concerned with content errors, while machine feedback mainly involved language errors,

(2) significant differences occurred in errors of most types between Draft 1, PF and PF-based Draft 2, and between Draft 1, MF, and MF-based Draft 2,

(3) the uptake of 'introducing a new idea in Conclusion' was a powerful predictor of PF-based Draft 2 scores, and

(4) the participants generally moderately considered peer and machine feedback to be useful.

Although the present study yielded insightful findings, given that the participants were intermediate-advanced learners and the instructor was experienced in academic English writing, it is worth doing further research on different types of SL/FL learners and instructors to explore more about the focus and effects of peer and machine feedback. For example, lower proficient SL/FL learners may not be able to identify all language problems and/or distinguish correctly and incorrectly identified errors by machine; SL/FL learners with no/little training in argumentative writing may not be able to identify content errors. All these may not only lower the quality of peer feedback but also mislead learners to blindly depend on peer and machine feedback. More research on these issues with different SL/FL learner populations helps both learners and instructors to have a better understanding of peer and machine feedback. Then accordingly, peer and machine feedback may be better implemented to complement teacher feedback to improve the quality of SL/FL learners' writing as well as to alleviate writing teachers' workload.

Conflict of interest statement

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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Appendix I

Marking Criterion

12–15	8–11	4–7
• Clearly state the main idea of the paragraph, • Adequate evidence is presented, • Clear organization, • Coherently and grammatically presented	• State the main idea of the paragraph, • Some evidence is presented, • Good organization, • Adequately presented (i.e., not that coherently and grammatically)	• Vaguely state the main idea of the paragraph, • Little evidence is presented, • Poor organization, • Poorly presented (i.e., not coherently and grammatically)

Appendix II

Error Coding & Classification Scheme

Content errors	
C1	Failure to show a controlling idea/More than one controlling idea
C2	Improper topic sentence/No controlling idea/no topic sentence
C3	Failure to provide adequate evidence
C4	Failure to provide substantial evidence
C5	Lack of the power of the argument/Weak arguments or evidence
C6	Failure to keep the necessary consistency in meaning/Inconsistency between the topic sentence and supporting sentences
C7	Fail to achieve paragraph coherence: poor organization/Lack or misuse of transitional markers
C8	Inconsistency between the conclusion and the main argument
C9	Introducing a new topic in Conclusion
Mechanical errors (ME)	
ME1	Misspellings
ME2	Punctuation errors
ME3	Capitalization errors
Syntactical errors (SE)	
SE1	Errors in part of speech (noun/adj./adv./prep./pron./conj./verb)
SE2	Tense errors
SE3	Errors in agreement
SE4	Verb errors
SE5	Adjective/adverb degree errors
SE6	Articles errors
SE7	Errors in the use of plural or singular forms/uncountable nouns
SE8	Case errors
SE9	Errors in mood /auxiliaries (including modal auxiliaries)
SE10	Errors in word order (positive and negative sentence/questions/subordinate clause/ adverbs and adjectives)
SE11	Errors in coordinating conjunctions and subordinating conjunctions
SE12	Errors of illogical comparison or ill parallelism
SE13	Errors of sentence fragments/run-on sentence/dangling modifiers
SE14	Errors of mixed or confused expression and sentence structure
SE15	Missing a part of the sentence
SE16	Overuse of a part of the sentence
Lexical errors (LE)	
LE1	Errors in word formation
LE2	Errors in word choice
LE3	Errors in collocations
LE4	Unclear or incomplete expressions

Meihua Liu

Ziele und Ergebnisse des kollegialen und automatisierten Feedbacks bei der Korrektur englischsprachiger Argumentationsaufsätze von EFL-Studierenden einer chinesischen Universität

Zusammenfassung

In Anlehnung an eine empirische Untersuchung präsentiert der vorliegende Artikel die Ziele und Ergebnisse eines kollegialen und automatisierten Feedbacks (engl. *peer feedback*, *machine feedback*) bei der Korrektur des Inhalts eines englischsprachigen Argumentationsaufsatzes. An der Untersuchung nahmen 127 Studierende einer chinesischen Universität teil, für die Englisch eine Fremdsprache ist. Die gesammelten Daten entstammen verschiedenen Versionen des Aufsatzes (Arbeitsversion Nr. 1, kollegiales Feedback (PF), Arbeitsversion Nr. 2 – basiert auf kollegialem Feedback, automatisiertes Feedback (MF), Arbeitsversion Nr. 2 – basiert auf automatisiertem Feedback) sowie Fragebögen und aufgenommenen Interviews. Aus der Analyse erhobener Daten ergeben sich wesentliche Unterschiede in Bezug auf die erhaltenen Feedbacks, die im Text auf Grundlage verschiedener Versionen des Aufsatzes im Einzelnen erläutert werden. Es wird beispielsweise unter Beweis gestellt, dass das kollegiale Feedback in erster Linie auf inhaltliche Fehler konzentriert war, während sich das automatisierte Feedback meistens auf sprachliche Fehler bezog. In Anlehnung an die durchgeführte Analyse werden Implikationen betreffend kollegiales und automatisiertes Feedback präsentiert.

Schlüsselwörter: kollegiales Feedback, automatisiertes Feedback, Argumentationsaufsatz

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Polish-English Code-Switching in the Language of Polish Facebook Users

Abstract

Social networking services, such as Facebook, are imwportant channels of communication both for monolingual users and for those having various degrees of proficiency in L2, with the latter deploying expression both from L1 and L2. It can, therefore, be presumed that communication on FB plays a role in practicing the use of L2. One of the phenomena that can be examined in relation to that are various forms of code-switching. There is an immense research gap related to Polish-English code-switching appearing on this SNS. To obtain a full picture of the issue, the paper identifies and discusses types, strategies, and functions of Polish-English code-switches found in posts and comments published by Poles on Facebook in 2014–2019. It also indicates possible applications of FB tools and materials including CS in foreign language teaching and learning and shows how Facebook enables "social learning" (Mallia, 2013). The research is based on a corpus constructed by the author of this article. An integrated approach with both qualitative and quantitative methods of analysis is used in the paper. Three main CS types (intrasentential, intersentential, and tag-switching) and strategies (alternation, insertion, and congruent lexicalisation) have been attested in the material. The code-switches mostly indicate in-group membership but also, for example, introduce humor, quotes, and signal a lack of L1 equivalents. The study points out that there are certain relations between the types, strategies and functions. The results of the research are collated with the recent studies on Polish-English and Indonesian-English CS on Facebook.

Keywords: code-switching, social media, Facebook, the Polish language, the English language

Social networking services (SNSs), such as Facebook (FB), are recognized as one of the most popular means of communication (Jedamska, 2015), important both for monolingual users and for those having various degrees of proficiency in L2 (with the latter deploying expression both from L1 and

L2). It can, therefore, be presumed that communication on FB plays a role in practicing the use of L2. This SNS sheds a new light on various language contact phenomena, including code-switches. Switching between non-European languages and English that occurs on Facebook has already been touched upon by various researchers (e.g., Alhazmi, 2016; Dovchin, 2017). However, there is an immense research gap related to Polish-English code-switching (CS) appearing on this social networking service. To obtain a full picture of the issue, the paper identifies and discusses types, strategies, and functions of Polish-English code-switches found in posts and comments published by Poles on Facebook within the last five years (2014–2019). It also indicates possible applications of FB tools and materials including CS in foreign language teaching and learning and shows how Facebook enables the so called social learning (Mallia, 2013). There are few studies referring to the general use of Facebook in education but no discussion addressing it in the light of code-switching was noted. The research is based on a corpus constructed by the present author. An integrated approach with both qualitative and quantitative methods of analysis is used in the paper.

Code-Switching—Theoretical Background

Concept of Code-Switching

To start with, code-switching is defined as "the alternate use of two languages or linguistic varieties within the same utterance or during the same conversation" (Hoffman, 1991, p. 110). Certain researchers (e.g., Gonzalez, 2008) argue that CS encompasses only languages—they do not include language varieties in their descriptions of this notion. According to Manfredi, Simeone-Senelle and Tosco (2015), code-switches as well as borrowings are recognized as outcomes of *language contact*.

Research devoted to code-switching used in spoken or written language may be divided into structural and sociolinguistic discussions (Boztepe, 2003). The former dimension addresses mainly grammatical facets of this phenomenon while the latter direction concentrates on: (1) code-switching as a notion which should be analyzed from the perspective of discourse, (2) the correlation between CS and social factors. Boztepe (2003) adds that those perspectives do not contradict but rather complete each other. Consequently, analyzing both of the dimensions seems to be essential; however, it will not be possible to elaborate on the social aspect of using code-switches by Polish Facebook us-

ers in the practical part of the present study since 50% of the authors of the research material have private profiles. As a result, socio-demographic information concerning those speakers is not accessible. Therefore, the paper will concentrate on linguistic issues connected with Polish-English code-switching occurring on Facebook.

When it comes to reasons for code-switching (also referred to as "functions of code-switching"), Walid (2019) lists among them: *solidarity*, *social status*, *topic, affection*, *persuasion*, *the lack of specific vocabulary in a given language*. Błasiak (2011) suggests that code-switching results from insufficient linguistic competence of a given speaker concerning one or all of the used languages. However, Bullock and Toribio (2009) present an opposite view: "CS does not represent a breakdown in communication, but reflects the skillful manipulation of two language systems for various communicative functions" (p. 4). In the classroom context, Nordin et al. (2013) highlight that the majority of the surveyed ESL learners show positive attitude to code-switching. The students claim that CS helps them understand the foreign language (FL).

Differences between Borrowings and Code-Switches

It is necessary to mention differences between borrowings and code-switches here since one of the fundamental stages of the present study will be to distinguish between examples of the structures and further analyze only code-switches. Grosjean (2008) proposes a closer look on the form of those two phenomena and the basic difference between them:

> A code-switch is a complete shift to the other language for a word, a phrase, or a sentence whereas a borrowing is a morpheme, word, or short expression taken from the less activated language and adapted morphosyntactically (and sometimes phonologically) to the base language. (p. 44)

In practice, one can see that there are also cases of borrowings that do not assimilate into the recipient-language system at all; therefore, they may bear some resemblance to code-switches. In order to detect differences between borrowings and code-switches, I have created a comparison of their features in Table 1.

Table 1

Differences between borrowings and code-switches

No.	Code-switches	Borrowings
1.	appear before borrowings (Halmari, 1997)	appear after code-switches (Halmari, 1997)
2.	are more restricted when it comes to their use – individual (Halmari, 1997)	are less restricted in their use – societal (Halmari, 1997); established loans reveal a tendency to be "recurrent in the speech of the individual and widespread across the community" (Poplack, 2004, p. 590)
3.	are completely unadapted (Halmari, 1997)	may be adapted in terms of morphology, phonology and syntax (Halmari, 1997; Poplack, 2004)
4.	have temporary character (Manfredi et al., 2015)	do not have temporary character, they are fully incorporated into the recipient-language system (Halmari, 1997; Poplack, 1990)
5.	belong to speakers' parole (Schmidt, 2014)	since languages in contact are integrated, loans belong to speakers' langue (Schmidt, 2014)
6.	are related to performance (Panocová, 2015)	are connected with competence (Panocová, 2015)
7.	cannot be used by monolinguals (Haspelmath, 2008)	can be used by monolinguals (Haspelmath, 2008)

Halmari (1997) observes that borrowings are preceded by code-switching in time. This difference is connected with the process of adaptation. First, foreign linguistic forms are quotes, preserving original shapes, only later, they may become integrated into the recipient language. Haugen (1956, p. 40) specifies the form of code-switching, claiming that it appears when fully unassimilated words are observed in somebody's utterance. As opposed to code-switches, borrowings can be adapted to a given language (Halmari, 1997; Poplack, 2004). Since code-switches are similar to quotes, they have an individual character (Halmari, 1997). Borrowings can be used by a given speaker and then become propagated among a linguistic community and shared by its different members. Code-switches are claimed to be non-recurrent and ephemeral (Manfredi et al., 2015) as opposed to borrowings (Poplack, 2004). Also, code-switches and borrowings may be addressed with reference to the terminology of Chomsky and de Saussure. Temporary code-switches represent parole and performance while borrowings relate to the notion of langue and competence (Panocová, 2015; Schmidt, 2014). Finally, studies show that monolingual speakers are not capable of using code-switches but they can introduce borrowings into their utterances (Haspelmath, 2008). In order to code-switch, a speaker must be at least bilingual.

After indicating the differences between code-switches and borrowings, it is necessary to establish criteria distinguishing between the structures that will be applied in the present study. They read as follows:

– the degree of assimilation (MacSwan, 1997, pp. 74–75)—it addresses an adaptation level of a given foreign linguistic element in terms of morphology and phonology;
– the frequency of occurrence (Myers-Scotton, 1993, p. 162)—if a foreign form occurs in a relatively large corpus more than twice, one can categorize it as a borrowing.

The criteria will be especially crucial when differentiating between code-switches and unadapted borrowings because both phenomena are not integrated into the recipient-language system.

Types and Strategies of Code-Switching

The present section focuses on types and strategies of CS. According to Błasiak (2011), code-switching can appear at different levels of an utterance. In connection with this fact, linguists propose distinct kinds of CS. One of the most popular typologies of code-switching is a division presented by Gonzalez (2008, p. 13). She introduces:

– intersentential code-switching—code-switches occur within different sentences, for example, *Czy życzliwa dusza, której p. XYZ dał worksheet, wrzuciłaby go na maila? Much appreciated.*
– intrasentential code-switching—code-switches appear within a single sentence, for example, *Uczelnio, you are of genious*.[1]

Along with the above distinction, Romaine (1995) proposes the third kind of code-switching. She introduces the so called tag-switching, which refers to inserting a tag in a given language into the utterance in another language (Romaine, 1995, p. 122), for example, *To jeszcze się zgadamy jak coś, right?* (Pańka, 2019, p. 119).

Linguists identify tree strategies of using code-switching that will be addressed in the practical part of the present study (Błasiak, 2011):

– alternation—the change of a code concerns grammar as well as lexicon. Gabryś-Barker (2007) specifies that this strategy concerns introducing whole sentences of a foreign origin.
– insertion—an element from one language is inserted into the structure of another linguistic system. Myers-Scotton (2006, p. 241) adds that "[c]lassic

[1] The two listed examples from Pańka (2019, p. 119). The original spelling was preserved and all the proper names were removed from the texts.

codeswitching includes elements from two (or more) language varieties in the same clause."
– congruent lexicalisation—occurs when a grammatical structure is shared by two languages and elements from both languages can fill it lexically. This kind of CS probably does not involve any structural limitations.

It needs to be also stressed that there are certain rules that limit the occurrence of CS. One of them is equivalence constraint, which states that codeswitching often appears in places where the combination of elements of two different languages does not contravene their grammars (Poplack, 1981).

1.4 Code-Switching on Facebook

It is necessary to focus on the state of the art on CS occurring on the most popular social networking service in the world, that is, Facebook (Hamada, 2012). Richter and Koch (2008, pp. 1–2) describe sites of this type in the following way:

> Social Networking Services (SNS) are application systems that offer users functionalities for **identity management** (1) (i.e. the representation of the own person e.g. in form of a profile) and enable furthermore **to keep in touch** (2) with other users (and thus the administration of own contacts). (Richter & Koch, 2008, pp. 1–2, emphasis original)

The issue of CS on Facebook has been touched upon by various researchers so far. There are examples of studies that analyze switching between English and the following languages: Arabic (Alhazmi, 2016), Hindi (Jamatia, Gambäck, & Das, 2015), Indonesian (Syam & Furwana, 2018), Malay (Bukhari, 2015), Mongolian (Dovchin, 2017), Spanish (Solorio et al., 2014), Thai (Kongkerd, 2015). In the majority of the aforementioned cases, the switching involves English and non-European languages.

To my knowledge, the only studies devoted to Polish-English code-switching appearing on Facebook were conducted by Dąbrowska (2013a, 2013b).[2] In her research, she addresses types and functions of English code-switches in Polish on the basis of a corpus comprising (only) posts published by native Polish Facebook users in 2012–2013. Taking into account the dynamics of the expansion and evolution of SNSs, an update on the situation of Polish-English CS on Facebook appears to be timely. Aiming to provide current data and their analysis, this study will also hark back to Dąbrowska's results in order to draw

[2] The first study is a paper focusing on the CS, the second one is a monograph devoted also to many other issues than this phenomenon. Therefore, later on, only the former discussion will be addressed.

some conclusions concerning any possible changes in the use of CS over the last years.

Dąbrowska (2013a) does not clearly identify the number of words of the material; however, she informs that it includes 150 posts written by Polish Facebook users. As a consequence, her corpus appears to be much smaller than the one used in the paper. This obviously results from the fact that it has been collected for only one year. When it comes to the CS typology used by Dąbrowska (2013a), the author applies the types proposed by Gonzalez (2008) and Romaine (1995) in her study. Nevertheless, she uses a different term for "tag-switching," that is, "extra-sentential code-switching." As regards the functions of the code-switches, Dąbrowska (2013a, pp. 73–75) provides the following list of them: introducing humor, a light and friendly tone; marking in-group membership, language economy, a lack of equivalent vocabulary in the L1, context specificity, a reinforcement of uttered meanings, quotes, inclusion of others who do not speak the Polish language. Functions of CS in ESL classroom settings seem to be quite different – teachers usually apply it to give instruction, feedback, check comprehension, explain grammar and differences between languages as well as discuss tests (Nordin et al., 2013).

While analyzing Pamona-Indonesian code-switching on Facebook, Luke (2015) applies CS types proposed by Hoffman (1991) in her study:
– intra-sentential—occurring within a phrase, a clause or a sentence,
– intra-lexical—appearing within a word,
– involving a change of pronunciation—including changes in phonological structure.

Due to the fact that the code-switches found in the present study do not occur at phonological/morphological levels, the types introduced by Gonzalez (2008) and Romaine (1995) will be used in the paper. Luke (2015) utilizes also reasons for CS provided by Hoffman (1991): talking about a particular topic, quoting somebody else, expressing group identity, strengthening or softening request or command, lexical need, excluding other people when a comment is intended for only a limited audience, being emphatic about something, interjections, repetition used for clarification, intentions of clarifying the speech content for interlocutor. It should be stressed that clarification is frequently mentioned as a reason of CS use in classrooms (Nordin et al., 2013). One may observe that many of Luke's reasons (the first six categories) as well as Walid's motives (2019) mentioned earlier (e.g., solidarity, the lack of vocabulary) correspond to the CS functions proposed by Dąbrowska (2013a).

Syam and Furwana (2018) analyze types of Indonesian-English code-switches on FB and reasons for using them, using only a qualitative method. They utilize the same typology as in the present study; however, they add some new

motives for CS: the activation of the speakers' speech repertoire, code-switching as style markers, framing discourse, separating feelings from facts, clarifying the speech content for the interlocutor. In the study, I will apply the functions proposed by Dąbrowska (2013a) and add the aforementioned categories by Syam and Furwana (2018) to the division. The results of the present research will be confronted with the findings of the three authors in order to obtain a wider view on CS.

SNSs and Language Learning

SNSs give a possibility of language learning in formal and informal settings (Mallia, 2013). In the context of the sites, different studies (e.g. Malerba, 2011; Mallia, 2013) highlight the role of *social learning*, where education entails cooperation. This kind of learning has its roots in *social-constructivism*, which highlights interaction between people in the development of meaning (Vygotsky, 1978). Mallia (2013, p. 149) paraphrases the stance of Blattner and Fiori (2009, p. 18), claiming that among SNS members, "knowledge is constructed in a community of practice where users 'share similar interest' and have 'pedagogical potentials' […]."

The SNS environment facilitates studying thanks to integration with others, enhances users' self-confidence, learning motivation and autonomy (Mallia, 2013). Facebook members enjoy studying that involves interaction in English and receiving peer feedback.

Also, the notion of incidental (unintentional) learning should be mentioned here as SNS users may participate in it through observation, social interaction, repetition, and problem solving (McFerrin, 1989; Rogers, 1997). What is crucial here, "[t]he boundaries between learning providers and learners have crumbled: learners have entered the sphere of content production, can create their contents (learner generated content)" (Malerba, 2011, p. 142). There are few studies related to applications of Facebook in FL learning/teaching. Researchers indicate the following FB tools that might be helpful in this context: Groups (Tafazoli & Chirimbu, 2013), Notes, Update Status, Upload Photos (Saddhono et al., 2019).

Material and Methodology of the Study

Research Material

The study is based on a corpus constructed by the author of this article. Crystal (2008, p. 17) defines "a corpus" as "[a] collection of linguistic data, either written texts or a transcription of recorded speech, which can be used as a starting-point of linguistic description or as a means of verifying hypotheses about a language […]." The discussed written material includes Polish posts and comments which were published on Facebook in 2014–2019. It was decided to gather texts only from one SNS in order to obtain homogeneity of the research material. For the corpus, the author selected only public texts[3] (due to ethical issues) that covered a variety of topics. The material has been constructed for a few years in order to obtain enough data for a valid statistical analysis.

Currently, the corpus consists of 60,000 words; however, it is being successively extended. The author extracted a total of 824 posts and 2,272 comments from Facebook. Any entries including only emojis, emoticons or other images were removed from the material. The register of the language collected is mostly informal. The users are both public and private persons (90 users in total) having, respectively, fan pages and private accounts. They are friends of the author of this article or people followed by her (any texts of random users were removed from the corpus). In order to obtain a balanced material, it was decided to collect texts written by 45 public persons and 45 private users. Thirty of the Facebook users (33.3%) are men and 60 of them (66.7%) are women. English is a foreign language for them. There was no possibility to collect full information concerning their sociodemographic data due to Facebook privacy settings.

Research Methodology

The methodology of the CS analysis applied in the study involves the following steps:

1. creation of the corpus,
2. searching the corpus for constructions of English origin,
3. division of the constructions into borrowings and code-switches (based on their assimilation degree and occurrence frequency),
4. uploading the corpus into Wordsmith Tools,
5. quantitative and qualitative analyses of the code-switches.

[3] Users can determine a type of access to each post (public/private).

First, the author systematically built up a corpus by copying posts and comments with correlated metadata from Facebook to a text file. Then, she searched it for constructions of English origin and separated code-switches from borrowings, applying the two criteria: the degree of assimilation and the frequency of occurrence. Next, the author uploaded the corpus in a text file to a program enabling searching patterns in languages, that is, Wordsmith Tools. She studied the instances of CS quantitatively, referring to the length and frequency of the code-switches, and qualitatively, identifying and discussing types, strategies and functions of the code-switching. Thanks to the concordance search option available in the software, she was able to analyze the contexts in which the code-switches appeared. The results are presented in the following section of the paper.

Data Analysis

Code-Switches Appearing in the Corpus—General Information

The present part of the paper focuses on the findings of the study. The code-switches occur 370 times in the corpus. English proper nouns are not counted as the CS instances. Moreover, all of the aforementioned code-switching types have been noticed in the material:
– intrasentential CS—82% of the instances (303 code-switches),
– intersentential CS—11% of the instances (41 code-switches),
– tag-switching—7% of the instances (26 code-switches).

Clearly, the first type is the most frequent and the last one appears the least often in the material. Since it is not possible to present all of the code-switches here, the author attempts to provide some examples from each group. All surnames, names of brands and political parties appearing in the material are removed from the instances provided below. Table 2 illustrates the examples of the code-switches[4] belonging to all of the three types.

[4] The code-switches are underlined in the sentences. The original spelling of the posts and comments is preserved.

Table 2

Examples of code-switches found in the corpus

Types of code-switches	Examples of code-switches
Intrasentential code-switches	1. Dzień staje się piękniejszy, kiedy w końcu przyjdzie czas na home spa. 2. Na początek mam do zaprojektowania landing page. 3. Skoro blogerzy stali się demode dla branży […] przyszedł czas na influencerów i aktualnie pompowany jest balonik z logo influence marketing. 4. W każdym innym wypadku środki przeznaczyłbym na inne, sprawdzone metody digitalowe, jak programmatic. 5. Mimo, że wielu nazywa nas fit couple, czy „celebrytami", my po prostu żyjemy po swojemu. 6. P.S. Challenge dla Was to nie zaśmiać się podczas oglądania. 7. XXX – oficjalne family photo z najlepszych czasów dla serwisu. 8. Żarty się skończyły. Za print screen dziękujemy pani XXX. 9. Meanwhile w drodze do Białegostoku. Co to się stanęło!? 10. Well done, XXX. 11. Przypominamy Wam naszą rozmowę z beauty boys. 12. Fake, ale głęboko prawdziwy. 13. Dziś wspomnienie XXX, ulubionego świętego mojej Babci, a więc jako tribute dla świętej pamięci Babci YYY. 14. Good job, XXX! 15. Brakuje mi jeszcze XXX krytykującej YYY. Ale to kwestia czasu; niebawem na 100% jakiś media worker się jej o to zapyta. 16. Dołączając się do koncertu życzeń, jakby ktoś chciał seminarium u p. XXX in exchange za seminarium u p. YYY to proszę o info. 17. Deadline is just a kwestia umowna.
Intersentential code-switches	1. A nie sam, bo tak sobie postanowiłem. Bullshit! 2. Widziałam lepszy hit. „Moje oczy zrobione z wody wylewają oceany pełne łez". DEAL WITH IT. 3. Już jutro pierwszy post, żebyśmy mogli lepiej się poznać, i poznać Wasze potrzeby. Stay tunned. 4. Morning, peops! Dzisiaj rozpoczynam kolejną serię ze słownictwem […]. 5. Wymowa powoduje odruch wymiotny, nawet jeśli są szeptane. Enjoy… if you dare! 6. Tu znajdziecie kurs biblioteczny, który trzeba zrobić do nie wiadomo kiedy. No deadline. 7. Bitwa o tron. Mission complete.
Tag-switches	1. By the way, znasz ten kawałek? 2. Pójdziemy tam razem, fine? 3. Sama to zrobiłam, if you know what I mean. 4. To be honest, nie znajdziemy nic lepszego. 5. No więc pisaliśmy już o tym, decyzja została podjęta, indeed.

The following sections are devoted to the individual types of the code-switches.

Intrasentential Code-Switches Appearing in the Corpus

As far as the intrasentential code-switching is concerned, one-word code switches are the most numerous (150 occurrences). The longest code-switches

include four words; however, they occur the least frequently (ten occurrences). In general, the shorter code-switches are, the more frequently they occur in the corpus. Syam and Furwana (2018) observe that SNS users are usually unaware of intrasentential code-switches. This may be related to the fact that the constructions are mostly short and, as a result, the shift does not disturb the flow of writing. The one-word code-switches represent different parts of speech, such as nouns (e.g., *challenge*, *fake*, *tribute*) as well as adjectives (e.g., *programmatic*), verbs (e.g., *go*) and adverbs (e.g., *meanwhile*), which are less frequent. As far as the last code-switch is concerned, the word (occurring at the beginning of a post) together with an intersentential code-switch appearing at the end of the published text ("Let's see this.") fulfil the function of framing discourse. Syam and Furwana (2018) highlight that such switching that occurs at boundaries attracts and holds the interlocutor's attention. The two-word code-switches create phrases, often involving collocations, as those presented in Table 2, for example, *landing page*, *fit couple*, *family photo*, *print screen*, *well done*. Some of the code-switches play the role of separating feelings from facts, where personal opinions are given in one language and facts/proper names are provided in the other, for example, *Well done, XXX.*; *Good job, XXX!*. The three- and four-word code-switches usually comprise simple clauses.

Most of the code-switches that include more than one word create authentic phrases and they are not accidental combinations; their components are syntactically adjusted. However, there appear also certain instances of the code-switches which do not contain full grammatical units. This refers to Examples 16 and 17 showed in Table 2. In both of the cases, the code is switched in the middle of a grammatical unit. In the former fragment, instead of introducing a complete English construction "in exchange for" into the post, its author uses "in exchange za" ("za" is a Polish equivalent of "for" in this context) and continues the sentence, utilizing the Polish language. Example 17 seems to be even more interesting. Most of the words in the sentence are of English origin. The switch ends after the article "a," which is a grammatical element not existing in Polish. Notwithstanding the fact, it is put in front of a Polish noun phrase. The whole sentence seems to comply with English patterns since the structure "kwestia umowna" is not inflected. On the basis of the above, it is likely that the sentence was supposed to be written in English in full but the author did not know the English equivalent of the Polish phrase.

As far as the strategies of the code-switching are concerned, two of them have been observed in the instances of the intrasentential code-switching:

1. the insertion of English fragments into the structure of the Polish sentences, for example, *Mimo, że wielu nazywa nas fit couple, czy "celebrytami", my po prostu żyjemy po swojemu.*

2. the congruent lexicalization, where Polish and English linguistic elements appear with different frequency, for example, *Prawdziwy man i jego woman to wszystko.*

The intrasentential code-switches involve lexis connected with everyday life (e.g., *snow*, *nothing personal*, *romantic*, *face*, *family photo*, *challenge*) but also technical vocabulary that can be assigned to three major thematic categories:
– IT (e.g., *programmatic*, *landing page*, *full version*, *print screen*),
– social media (e.g., *fit couple*, *influence marketing*, *media worker*),
– beauty and cosmetics (e.g., *home spa*, *beauty boys*).

Moreover, the intrasentential code-switches belonging to the domains of IT and social media constitute 60% of all of the code-switches occurring within the sentences. Basically, these constructions closely refer to the discourse in which they appear. It should be also highlighted at this point that some of the introduced terms do not have equivalents in the Polish language as the concepts which they designate seem to be quite new for Poles. That might be one of the reasons for the code-switching. The lack of the counterparts in Polish concerns, for example, the following constructions whose meanings were not noted in dictionaries such as *Diki* (a Polish-English, English-Polish dictionary, https://www.diki.pl) and *Wielki słownik języka polskiego* (a dictionary of the Polish language, https://wsjp.pl): *home spa* ("domowe spa"), *fit couple* ("para kochająca sport"), *influence marketing* ("marketing influencerów"), *print screen* ("zrzut ekranu"), *beauty boys* ("chłopcy, którzy się malują").[5] Apparently, even if any user tried to create his/her own Polish counterparts while writing, some of them could turn out to be quite long (as exemplified by the Polish equivalents of "fit couple" and "beauty boys" above). Consequently, another motive for introducing the English versions in those cases might be the language economy. When it comes to "fit couple," the code-switch may also fulfil the role of a quote since the author of the post writes that many people use this phrase with reference to him and some other person. In fact, the user cites somebody's words despite the lack of quotation marks.

Intersentential Code-Switches Appearing in the Corpus

The intersentential code-switches do not include technical language. The constructions comprise from one to four words. The most frequent are the two-word structures and the least numerous—the four-word code-switches. The one-word instances represent three parts of speech, that is, nouns (which appear the most often in the material), verbs, and adjectives. The longer code-switches involve phrases creating, for instance, collocations (Example 7) and

[5] All the Polish equivalents were proposed by the author of this paper.

idioms (Example 3). What is important, the second quoted example shows that not all of the analyzed code-switches constitute correct English structures since it contains a spelling mistake (a double 'n' instead of a single 'n'). The mistake was noticed and notified by other users in the comments—one may observe here an instance of peer correction. However, it was probably of an unintentional character since, as Dąbrowska (2013a, p. 68) mentions, any incorrect structures reveal that "the author's knowledge of English is imperfect," which is an unwanted situation since one is evaluated by other users all the time. Moreover, some of the code-switches cannot be recognized as genuinely existing structures in the English language, for example, *Może macie jakąś fajną grę/pomysł na ciekawe zajęcia STOPNIOWANIE PRZYMIOTNIKÓW?? Thanks from the mountain…* The underlined construction is also a mistake (a calque). Nevertheless, it does not appear in the material accidentally—the author aims to obtain a humorous effect and a friendly tone by applying a literal translation from Polish into English in her post. This code-switch also shows that the user feels comfortable and safe in the community—it highlights in-group membership. Although the code-switch occurs only once in the corpus, it seems to be a more popular structure. The structure is a manifestation of a linguistic hybrid, called "Ponglish" (Błasiak, 2011). It occurs, for example, in the material collected by Błasiak (2011) that consists of utterances of Poles living in Great Britain. As a consequence, this code-switch seems to be multifunctional—it can also fulfil the role of a quote.

One can notice that in most of the cases, the code-switches occur at the end of the posts or comments (as in Examples 1, 2, 3, 5, 6, 7 provided in Table 2). This probably results from the fact that those English elements serve as an addition to the main content and, in some of the instances, as a summary. They take the form of questions, exclamations, and imperative sentences. The aforementioned fragments may be contrasted with the following example: *Morning, peops! Dzisiaj rozpoczęłam kolejną serię ze słownictwem* […]. Here English "Morning, peops!" appears at the beginning of a post. However, still, the part conveying the main content is written in Polish—the English elements fulfil only the function of a short greeting. Moreover, one can note that this code-switch includes very informal language. This informality is strengthened by the use of an exclamation mark (in fact, typical of greetings). Apart from the reinforcement of the uttered meanings, other functions of the code-switch may be observed. It indicates the context specificity—the author of the post (a teacher) manages a fan page devoted to learning English; therefore, the free use of Polish-English code-switches seems to be predictable here. Also, the mentioned code-switch shows in-group membership (English is a common interest of the user and her followers) and constitutes a style marker—indicates casual relations between the teacher and the users following her.

As far as the other exclamations are concerned, one of the users (a public person) includes in his post the impolite word "bullshit." Obviously, by using an exclamation mark, he tries to reinforce the uttered meaning and draw special attention to his words. As Dąbrowska (2013a) mentions, such cases carry an expressive value. Interestingly enough, at the same time, the author of the post aims at introducing a lighter tone of the impolite word by writing it in English, not in Polish. The code switch may be recognized as a style marker, showing sincere and open relations between the author and his followers. The user even addresses the people observing him in the following way: "Wy, jako moi internetowi przyjaciele" ("You, as my Internet friends").

In one of the posts ("Szczęśliwego Dnia Kobiet! Happy Women's Day!"), the function of the inclusion of others who do not speak the Polish language was noticed. The text was created in two versions by a very popular public person in Poland who has also followers from other countries and wanted to reach as many users as possible with her wishes.

Since the code-switches of this type appear in separate sentences, they do not interfere with the Polish fragments in terms of grammar. As regards the strategy of the code-switching, the alternation of the linguistic codes may be observed.

Tag-Switches Appearing in the Corpus

As has been mentioned earlier, the tag-switches are the least frequent in the corpus. They include from one to six words. The one-word code-switches are the most numerous (seven occurrences) and the six-word code-switches appear the least frequently (only one occurrence). The instances of this CS type involve adverbs (e.g., *by the way*, *indeed*), adjectives (e.g., *fine*) and more complex structures, such as subordinate clauses (e.g., *to be honest*; *if you know what I mean*). The code-switches occur both at the beginning and at the end of the sentences, serving as additional elements, interjections. They do not convey any meaningful content and include any technical terms. However, as Syam and Furwana (2018) rightly notice, tag-switches may be used due to their attractiveness and popularity. This is the case when it comes to the above examples (utterances including such fragments may be frequently noticed, for example, in English-language films/series). Moreover, most of the code-switches fulfil the functions of introducing a light and friendly tone and marking in-group membership (e.g., *by the way* and *if you know what I mean* were used in a conversation between English philology students).

The English elements do not interfere with the grammar of the Polish fragments. This is related to the character of the tag-switches—they include full grammatical units and are always separated from the rest of the words

in the sentences by commas. As far as the strategy of the code-switching is concerned, the insertion of the English elements into the Polish sentences may be observed.

Concluding Remarks

To conclude, the contemporary use of English by Polish Facebook users is visible, for example, in the form of code-switches. The informal register of the language used in the present material naturally encourages the use of English since, as Dąbrowska (2013a, p. 64) notices, Facebook gives its users a "sense of safety and acceptance" and a space for interaction with others. As a result, this SNS creates a great environment for learning and practicing English in various forms in users' daily lives.

The research demonstrates that there is a considerable research gap related to Polish-English code-switching appearing on Facebook. The results of the paper are confronted with the findings of Dąbrowska (2013a) and Syam and Furwana (2018). The code-switching analyzed in this research appears at different grammatical levels and uses distinct patterns—it includes all of the three major CS types and strategies. The study shows that the types and strategies are closely related, which results from the character of the individual types. In the intrasentential CS, alternation is not possible since it requires introducing whole sentences— obviously, it occurs as the only strategy in the intersentential CS. In the tag-switching, which includes single words/fixed constructions within sentences, only insertion was possible. As regards the functions, the lack of L1 vocabulary appears only in the intrasentential CS as it frequently involves the use of terms. The reinforcement of the uttered meanings is typical of the intersentential CS—the easiest way to strengthen the expression of a given text was to code-switch in a separate sentence. As the tag-switches are only interjections, they reduce the formality of the sentence.

The majority of the code-switches appear within sentences; the tag-switches are the least frequent. In Dąbrowska's study (2013a), the tag-switches also constitute the smallest group; however, the distribution of the intra- and intersentential code-switches is similar. A CS type which does not occur in both of the studies is code-switching within the word level (noticed in Syam and Furwana, 2018). In the present paper, most of the one-word code-switches include nouns (in the study of Syam and Furwana, 2018, some of the users utilize English conjunctions in their texts—they are not present here). Within the multi-word constructions of English origin, distinct syntactic structures such as collocations and idioms were found. When it comes to the complex code-switches, there is

no limit concerning sentence types—they contain not only statements but also questions, exclamations, and commands. This means that the users feel freely using CS and probably have a good command of English.

In most of the cases, the authors of the posts and comments create genuinely existing structures of foreign origin and stick to the equivalence constraint (similar results in Dąbrowska, 2013a). This results from the users' willingness to be understood by their interlocutors. English is their foreign language; therefore, they make mostly safe choices. As Dąbrowska (2013a) highlights, the reason for that is a fear of making mistakes. The users try to be cautious since in written communication, the incorrect forms are especially visible. However, there are certain single artificially created constructions that aim, for example, at bringing humor into the conversations and structures including spelling mistakes—some departures from standard English also appear in Dąbrowska's study (2013a). Quite different results were obtained by Syam and Furwana (2018)—most of the analyzed users do not follow the grammatical rules.

The function of marking in-group membership appears the most frequently (similar results in Luke, 2015, but different in Dąbrowska, 2013a, where humorous undertones occur the most often), which suggests that the solidarity with other users is particularly important for the FB members. A command of English seems to be particularly important for any user aiming to fully identify with the Facebook community in linguistic terms. Some of the intrasentential code-switches include technical vocabulary related to IT, social media, beauty and cosmetics. These are the spheres of our life which appear to be rapidly developing nowadays. Some of the code-switches currently do not have equivalents in Polish. The issue of lexical topics related to these spheres should probably be taken into consideration while establishing FL teaching curricula. Code-switching fulfils also many other functions in the corpus: language economy, context specificity, style marker, reinforcing the uttered meanings, introducing a light and friendly tone or quotes, separating feelings from facts, framing discourse. Consequently, the code-switching may be recognized as a useful linguistic strategy. All of the functions of Dąbrowska (2013a) were noticed in the paper; two of the motives of Syam and Furwana (2018) were not observed: the activation of the speakers' speech repertoire and clarifying the speech content for the interlocutor. The comparison of the studies shows that the character of code-switching depends on a language (more differences were noticed between the present paper and the research of Syam and Furwana, 2018).

Facebook might serve as a FL teaching/learning tool. First, as has been noticed, the posts and comments published on this SNS include linguistic mistakes not only within the code-switches. Teachers can use the material in an error correction task, for example, Polish students could identify mistakes in English fragments and students learning Polish as a foreign language could look for mistakes in Polish fragments. Second, there are a number of fan pages

founded, for example, by teachers that spread knowledge about languages. The use of code-switches by public persons (who might be a kind of role models) can encourage the use of similar structures by their followers as "fans of celebrities may seek to imitate or impersonate a certain celebrity's behavior in order to increase their own personal self-esteem" (Min, 2019). Moreover, the users may also join school-, interest- or even job-related groups, where they can practice foreign languages. In such groups and outside of them, Facebook members may learn not only from the teacher[6] (school groups) but also from each other by active discussion with native and non-native speakers, sharing ideas in L2, cooperation, identifying others' linguistic mistakes, providing peer feedback and establishing the understanding of new foreign terms (social learning). All of these can be facilitated by the following FB tools: Update Status, Comment, Video Chat, Instant Message, Facebook Apps, Facebook Quiz. The learning may be incidental—the users can enrich their foreign vocabulary by reading posts/comments of other people that include CS. The observation of new lexical items in such a form may arise interest and engagement in verifying their meaning. In general, Facebook can be identified as "Personal Learning Environment" (Siemens, 2006)—users create and manage their own learning spaces there, for example, they decide which linguistic fan pages to follow, which linguistic groups to join.

Due to the limitations related to the Facebook privacy settings, it is recommended that further research should endeavor to gain socio-demographic data on users of this SNS, for example, by means of a questionnaire. It would be particularly helpful to investigate the code-switches in the light of the users' command of English. To date, there has been disagreement on whether CS results from insufficient or high linguistic competence of speakers using different languages. This issue can be identified as another research gap that should be addressed in further studies.

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Daria Pańka

Codeswitching zwischen Polnisch und Englisch in der Sprache polnischer Facebook-Nutzer

Zusammenfassung

Social Media, wie Facebook, sind wichtige Kommunikationswege sowohl für einsprachige Anwender als auch für Nutzer mit verschiedenen Fremdsprachenkenntnissen (die letzteren übernehmen die Strukturen der Mutter- und Fremdsprache in die Konversation). Im Resultat kann man annehmen, dass die Kommunikation via Facebook eine gewisse Rolle bei der Verwendung von Fremdsprachen spielt. Einen der Aspekte, der in dieser Hinsicht analysiert werden kann, bilden verschiedene Formen von Codeswitching. In Bezug auf das Codeswitching zwischen Polnisch und Englisch, das in diesem sozialen Netzwerk vorkommt, besteht eine wesentliche Forschungslücke. Für einen kompletten Überblick über das dargestellte Problem werden im vorliegenden Artikel an angeführten polnisch-englischen Beispielen bestimmte Typen, Strategien und Funktionen von Codeswitching in Posts und Kommentaren, die von polnischen Facebook-Nutzern in den Jahren 2014–2019 erstellt wurden, identifiziert und erläutert. Darüber hinaus wird im Text auf die Anwendungsmöglichkeiten von Facebook-Tools und Materialien zum Codeswitching bei dem Fremdsprachenlehren und -lernen hingewiesen und der Aspekt des „sozialen Lernens“ (Mallia, 2013) mittels Facebook angesprochen.

Die Untersuchung basiert auf einem Korpus, das von der Autorin des vorliegenden Artikels entwickelt wurde. In der Untersuchung wurde eine integrative – d.h. qualitative und quantitative Methode eingesetzt. Im analysierten Material lassen sich drei Haupttypen (satzinterner, satzübergreifender, parenthetischer) und -strategien (Alliteration, Parenthese, entsprechende Umstellung von Lexemen) des Sprachcodeswitching unterscheiden. Das Codeswitching deutet hauptsächlich auf die Zugehörigkeit zur bestimmten Gruppe hin, kann aber auch Humor bzw. ein Zitat in die Aussage einleiten oder das Fehlen von Äquivalenten in der Muttersprache signalisieren. Aus dem Artikel ergibt sich, dass es gewisse Abhängigkeiten zwischen den Typen, Strategien und Funktionen des Codeswitching gibt. Die Resultate der betreffenden Analyse werden mit Ergebnissen der neuesten Untersuchungen über das polnisch- und indonesisch-englische Codeswitching auf Facebook zusammengestellt.

Schlüsselwörter: Codeswitching, Social Media, Facebook, Polnisch, Englisch

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Jordanian University Students' Awareness of the Different Phonetic Alternates of the English Plural Morpheme

Abstract

This research paper investigates the extent to which Jordanian university students majoring in English are aware of the different phonetic forms or alternates of the English plural morpheme. The paper analyzes the results taken from 50 fourth-year female university students and 50 first-year female university students at Princess Alia University College at Al-Balqa Applied University in Amman. They were presented with randomized lists of 30 monosyllabic nonsense nouns selected to test their awareness of the various phonetic forms of the plural morpheme in English. The results showed that the fourth-year students outperformed the first-year students in producing the various phonetic productions of the plural morpheme. The groups used the same repair strategies. Analogy from the mother tongue was detected in the responses of both groups.

Keywords: plural morpheme, phonological forms, phonetic alternates

Introduction

The English plural regular morpheme, according to the spelling of the stem, is usually marked by the addition of either -s or -es. However, this morpheme is not always pronounced in the same way. The morpheme -s is sometimes pronounced as /s/. Other times, it is pronounced as /z/. In other environments, -es is pronounced as /iz/. The fact that one morpheme has different phonetic forms is usually tackled within a branch of linguistics called morphophonol-

ogy. This branch is concerned with the interaction that takes place between phonology and morphology. Morphophonemics is defined by the Routledge Dictionary of Language and Linguistics as an intermediate level between phonology and morphology. This intermediate level describes the abstract and underlying phonological form of a morpheme that has different phonetic realizations (Bussmann, 2000).

Hence, morphophonologically speaking, the English plural morpheme -s has only one phonological representation or, as Carr (2013) refers to it, one "phonological form" (p. 115). Moreover, this phonological form is subject to the application of phonological rules and is produced in three different forms according to the neighbouring sounds—namely, the preceding sounds. The fact that this mental representation of the morpheme is subject to the application of phonological rules makes of the resulting variants predictable allomorphs or allomorphic variants of the same morpheme. Hence, English has one plural morpheme, -s, which has three different allomorphs: /s/ as in *desks*, /z/ as in *bugs*, and /iz/ as in *churches*.

Only one of these three phonetic forms is stored in the speaker's mental capacity as the underlying phonological form or representation. This form is the one with the widest distribution: /s/ is pronounced immediately after voiceless sounds except sibilants; /z/ is pronounced immediately after voiced sounds (consonants and vowels) except sibilants; and /iz/ is pronounced immediately after sibilants. Scrutinizing the environments in which the three allomorphs are produced, one finds that /z/ has the widest distribution compared to /s/ and /iz/. Consequently, we can say that in English the plural morpheme -s has one mental representation or one phonological form, namely /z/, which is produced as /s/, /z/, and /iz/ in three different environments governed by three phonological rules (Allerton, 1979). These three phonological rules, which makes their distribution complementary, are as follows:

1. /z/ → /s/ after voiceless sounds except sibilants.
2. /z/ → /z/ after voiced sounds except sibilants.
3. /z/ → /iz/ after sibilants.

As we can see, the allomorphic variants of the English plural morpheme are predictable. The predictability of the distribution of these allomorphic variants is part of native speakers' linguistic knowledge. The question raised here is whether learners of English as a foreign language develop a systematic rule-based awareness of the realizations of the English plural morpheme at any stage of the learning process. In other words, do they become morphophonemically aware of the phonetic changes that take place on the plural morpheme when it is added to the stem?

Objectives

The main goal of the current study is to investigate whether Arabic-speaking learners of English as a foreign language succeed in achieving an English proficiency level which enables them to produce the allomorphic alternates of the phonological form of the English plural morpheme in the proper environment. The current study also aims at determining which of the allomorphic variants causes difficulties for those learners. Therefore, this study is expected to contribute to the area of second language learners' morphophonological awareness of the English plural morpheme.

Previous Related Studies

The development of morphophonological awareness has attracted the attention of researchers in the field of the acquisition of English by monolingual children throughout the past decades (amongst many, Berko, 1958; Brown, 1973; Cazden, 1968). Studies on the acquisition of morphemes in general and the plural morpheme in particular were triggered by Berko's experiment conducted in 1958. This has been referred to as the Wug test, and is cited and referred to in almost every research on the acquisition of the plural morpheme and/or other morphemes in any language. In her experiment, Berko proved to adherents of structural linguistics that children apply rules to form the plural of English nouns. Not only did her experiment yield evidence for the importance of the application of rules, but it also proved children's morphophonemic awareness of the conditioned distribution of the allomorphic alternates. Her subjects were able to distinguish between the three phonetic realizations of the plural morpheme -s. They were able to produce it as /s/, /z/, and/or /iz/ in different environments, even though they were exposed to nonsense words (Brown, 1973).

Kopcke (1998) reanalyzed Berko's results and suggested that children acquire the plural allomorphic variants starting with /s/ and /z/ and ending with /iz/.

D. Natalicio and L. Natalicio (1971) conducted a comparative research to investigate the acquisition of the English plural morpheme by English speakers and Spanish speakers. They used nonsense words. They found that the two groups' level of acquisition of the English plural morpheme was similar. They also found that both groups acquired the three English plural allomorphs in the same order. Their results were in line with Berko's (1958) and Kopcke's (1998) results in that the /s/ and /z/ allomorphs were acquired first, /iz/ being acquired at a later age.

Al-Janaideh and Mahadin (2015) conducted a research to investigate the acquisition of the English plural morpheme by Jordanian students learning English as a foreign language. Their results showed that morphophonemic awareness is important in the development of the students' proficiency level. Their results also showed that /iz/ was realized shortly after realizing /s/ and /z/.

Altarawneh and Hajjo (2018) also investigated Arabic university students' awareness of English plural morphemes. Their results showed that the Arabic-speaking EFL learners' level of proficiency had a little effect on their use of the plural morphemes. They attributed the students' errors to the differences between the English morphological system and the Arabic one.

Research on morphophonemic awareness and the development of the three English allomorphic variants by foreign learners of English is very rare. However, except for the Al-Janaideh and Mahadin's (2015) study, investigating the competence of the Arab learners of English in both aspects of the English inflectional plural morpheme—phonological and morphological—is also rare.

It is expected that learners of a foreign language gain a level of morphophonemic development and/or awareness. Even though this level of proficiency may vary, it is thought to be a general ability that learners develop a level of awareness at a particular stage of being exposed to the target language and its rules (Anthony & Francis, 2005; Zeigler & Goswami, 2005). Hence, it is important to investigate the morphophonemic awareness of Arab learners of English and to realize the kinds of problems or difficulties they face in order to try to find a way to facilitate the learning process for them. It is equally important to try to find ways to enhance the students' competence.

Methodology

Subjects

For the application of this study, 100 female Jordanian Arabic-speaking university students were tested. They were divided into two groups: 50 students were in their fourth year and 50 students were in their first year. All of them were majoring in English Language and Literature at Princess Alia University College at Al-Balqa Applied University in Amman, Jordan. All the students were monolinguals whose parents were also Jordanian speakers. All of the respondentswere selected randomly.

Procedures

Since the purpose of this study is to test Jordanians' morphophonological awareness of the phonological conditions, which govern the distribution of the different phonetic realizations of the English plural inflectional morpheme, a list of 30 nonsense monosyllabic singular nouns was prepared for this study. These nonsense words were created in accordance with the English phonotactics, which dictates the possible combinations of sounds in English. Each of the three plural allomorphs was represented by ten of the listed words. Ten of the 30 nonsense nouns end in voiceless sounds except sibilants, which add the /s/ allomorph when pluralized. Ten of the 30 words end in voiced sounds except sibilants and add the /z/ allomorph when pluralized. In addition, the last ten words end in sibilants and add the /iz/ allomorph when pluralized. The listed words were presented to the students in a random order so that the students would not detect any pattern. Since the subjects were aware of what they were doing, being university students, there was no need to expose them to different pictures of unfamiliar objects to represent the nonsense words. Accordingly, the first researcher, who was a linguist and speech therapist, read each singular item and asked the subjects to give its plural form. Subjects were tested individually in the Language Laboratory in Princess Alia University College in the presence of the researchers. Data were recorded by digital voice recorder and transferred to the computer as a WinRAR file. The researchers transcribed the recorded data after each session to avoid any misinterpretation that could have taken place due to time lag. Transcribed data were saved in computer files.

Results

The researchers analyzed and tabulated the elicited data. Means and standard deviations of the total productions were calculated and a t-test was carried out to compare and contrast the subjects' production.

The following question was raised:

Is there any statistically significant difference at ($a = 0.05$) in the total production of (iz, s, z) due to the year variable?

To answer this question, means and standard deviations of the total production of (iz, s, z) were used and a t-test was carried out to find out any significant differences between the production of both groups. Table 1 shows the results.

Table 1

Means, standard deviations and t-test results of the first- and fourth-year students (iz, s, z)

Allomorphic variant	Year	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
/iz/	First	50	6.08	2.671	–5.606	98	0.000
	Fourth	50	8.52	1.529			
/s/	First	50	9.52	.614	–4.822	98	0.000
	Fourth	50	9.96	.198			
/z/	First	50	4.40	2.807	–1.769	98	0.080
	Fourth	50	5.22	1.694			
Total	First	50	20.00	5.147	–4.470	98	0.000
	Fourth	50	23.70	2.787			

Table 1 shows that there are statistically significant differences at a = 0.05 between the means of the first- and fourth-year students in the production of (iz) in favor of fourth-year students. The table also shows that there are statistically significant differences at a = 0.05 between the means of the first- and fourth-year students in the production of (s) in favor of fourth-year students. In addition, the table indicates no statistically significant differences at a = 0.05 between the means of the first- and fourth-year students in (z). Finally, there are statistically significant differences at a= 0.05 between the means of the first- and fourth-year students in total in favor of fourth-year students.

Discussion

First-Year Students

Table 2 shows the overall correct productions of the allomorphic variants of the regular plural marker in percentages as produced by first-year students.

Table 2

First-year students' correct responses

Allomorphic Variant	Percentage of Correct Responses
/s/	95.2
/z/	42.2
/iz/	60.8

As can be inferred from Table 2, the production of the allomorph /s/ almost hit the ceiling, as 95.2 per cent of the total production of the /s/ allomorph was correct. Correct production of the /iz/ allomorph came next: its production scored 60.8 per cent. The /z/ allomorph scored only 42.2 per cent.

Table 3 shows the detailed percentages of the correct responses for each nonsense word that was used in the experiment.

Table 3

Percentages of correct responses produced by first-year students

Nouns with /s/	Percentage of correct responses	Nouns with /z/	Percentage of correct responses	Nouns with /iz/	Percentage of correct responses
throp(s)	92	ferd(z)	22	flerch(iz)	42
klop(s)	100	tred(z)	18	feech(iz)	58
besk(s)	100	skug(z)	70	nuce(iz)	86
plock(s)	100	frem(z)	78	mace(iz)	72
dat(s)	100	blove(z)	70	trize(iz)	54
dight(s)	100	lin(z)	20	threez(iz)	72
kyth(s)	76	san(z)	40	fladge(iz)	40
bonth(s)	96	thill(z)	22	ladge(iz)	44
bliff(s)	100	thribe(z)	0	lish(iz)	68
groof(s)	88	stee(z)	82	frash(iz)	72

As far as the production of the /s/ allomorph is concerned, the subjects found no difficulty attaching the plural morpheme and producing it as the expected /s/ in the following words: **klop*, **besk*, **plock*, **dat*, **dight* and **biff*. The subjects' correct production of these words scored 100 per cent. The word **bonth* came next, scoring 96 per cent. **Throp* scored 92 per cent, followed by **groof*, which scored 88 per cent. The production of **kyth* scored the lowest percentage of the correct responses at 76 per cent.

With regard to production of the /iz/ allomorph, Table 3 above shows that the production of this allomorph did not go as smoothly as the production of /s/. None of the terms scored 100 per cent. The highest percentage that appeared in the production of words that would add the /iz/ allomorph was 86 per cent, scored by the word **nuce*, while **mace*, **threez* and **frash* scored 72 per cent. **Lish* scored 68 per cent, followed by **feech* and **trize*, which scored 58 per cent and 54 per cent respectively. **Ladge*, **flerch*, and **fladge* scored the lowest: the percentages of their correct production were 44 per cent, 42 per cent, and 40 per cent respectively.

The group of words that add the /z/ allomorph scored the lowest percentages compared to the production of /s/ and /iz/. **Stee* and **frem* are the words with the highest percentages of correct production, as they scored 82 per cent and 78 per cent respectively. **Blove* and **skug* came next, both scoring 70 per cent. The correct production of **san* scored 40 per cent, while **thill* and **ferd* scored 22 per cent each. **Lin* and **tred* scored 20 per cent and 18 per cent respectively, whereas no student achieved correct production of the plural of **thribe*.

As can be seen from the data analysis above, the correct production of the /z/ allomorph posed a challenge to the first-year students, even though it is confirmed that it is the mental representation or the phonological form of the English plural morpheme (Carr, 2013). To put it differently, /z/ is the phonological form that is associated with the plural morpheme in the linguistic knowledge of native speakers of English. Theoretically, first-year students were expected to have no difficulty producing it, especially as they had been exposed to the English language for a reasonable number of scholastic years. However, it is obvious that their competence has not fully developed yet.

With regard to production of the allomorph /z/, and if the last sound of the stem is taken into consideration, no particular sound at the end of the terms can be said to have caused this production problem. This is because there is a clear discrepancy between the production of words that end in the same sound. For example, although **lin* and **san* both end in /n/, 80 per cent of the overall production of **lin* was incorrect, while the percentage of incorrect production of **san* was 60 per cent. Looking at it from the perspective of natural classes does not work either. The term **frem* ends in the bilabial nasal /m/; however, its incorrect production had a percentage of 22 per cent of the total production of the word. The stem with the vowel as its last segment was produced with the lowest percentage of incorrect responses (18%), whereas the stem that ends in /b/ was produced incorrectly by all.

Concerning the production of the allomorph /s/, stem final sounds could not yield any justification for the errors in the students' productions. This is also because of the obvious discrepancy between the percentages scored by stems that end in the same sound. For example, although **kyth* and **bonth* both end in a voiceless interdental, the percentage of incorrect production of **kyth* was 24 per cent, while that of **bonth* was only 4 per cent. Another discrepancy could be found in the incorrect production of the terms ending in the voiceless bilabial stop. Incorrect production of the /s/ allomorph in **throp* was 8 per cent, while **klop* did not have any incorrect production.

This explanation also applies to the production of the /iz/ allomorph in stems ending in sibilants. Discrepancy in the production of the /iz/ allomorph was witnessed in the production of **nuce* and **mace*. Both end in the voiceless alveolar fricative. Nonetheless, the percentage of incorrect production of **nuce* was 14 per cent, while that of **mace* was 28 per cent.

Students' Repair Strategies

It is worth noting that first-year students did not resort to deletion as a repair strategy. On the contrary, they resorted to replacement. Students' repair strategies varied and overlapped. No particular pattern in the use of the repair strategies was detected. All students' incorrect productions of the /z/ allomorph took the form of replacing /z/ with /s/. This is illustrated in Table 4.

Table 4

Students' replacement of the /z/ allomorph

/s/	/iz/	/is/
100%	0%	0%

On the other hand, students' incorrect productions of the /iz/ allomorph took the form of replacing /iz/ with either /z/, /s/ or, unexpectedly, /is/. Replacement with the non-existent /is/ was used more frequently than /s/ and /z/. This is illustrated in Table 5.

Table 5

Students' replacement of the /iz/ allomorph

/is/	/z/	/s/
62%	17%	21%

Finally, /s/ also underwent fewer instances of replacement. It was replaced by /is/, /z/ and/or /iz/. Once again, replacing /s/ with the non-existing /is/ showed the highest percentage. Table 6 illustrates the repair strategy for this allomorph.

Table 6

Students' replacement of the /s/ allomorph

/is/	/z/	/iz/
22%	18%	8%

Hence, first-year students did encounter problems producing the English plural allomorphic alternates. The only repair strategy that was used by the students was replacement. The replacement of the allomorphs overlapped. Students' production was not based on the phonological structure of the stem. The students' choice of the replacement for the expected allomorph was not based on the phonological structure of the stem, either. Not only did the students mix the productions of the three allomorphs of the plural, but they also created a fourth one—namely, /is/.

Fourth-Year Students

Table 7 shows the percentages of the overall correct production of the allomorphic variants of the regular plural marker as produced by fourth-year students.

Table 7

Fourth-year students' correct responses

Allomorphic variant	Percentage of correct responses
/s/	99.6
/z/	52.0
/iz/	85.2

As can be seen from Table 7, the production of the allomorph /s/ almost hit the ceiling, as 99.6 per cent of the total production of the /s/ allomorph was correct. Correct production of the /iz/ allomorph came next, scoring 85.2 per cent. The /z/ allomorph scored only 52 per cent.

Table 8 shows the detailed percentages of correct responses for each nonsense word.

Table 8

Percentages of correct responses produced by fourth-year students

Nouns with /s/	Percentage of correct responses	Nouns with /z/	Percentage of correct responses	Nouns with /iz/	Percentage of correct responses
throp(s)	100	ferd(z)	26	flerch(iz)	82
klop(s)	100	tred(z)	36	feech(iz)	90
besk(s)	100	skug(z)	84	nuce(iz)	88
plock(s)	100	frem(z)	94	mace(iz)	88
dat(s)	100	blove(z)	86	trize(iz)	80
dight(s)	100	lin(z)	20	threez(iz)	82
kyth(s)	96	san(z)	38	fladge(iz)	84
bonth(s)	100	thill(z)	32	ladge(iz)	82
bliff(s)	100	thribe(z)	4	lish(iz)	86
groof(s)	100	stee(z)	100	frash(iz)	90

As far as the production of the /s/ allomorph is concerned, it is obvious that the subjects found no difficulty producing the allomorph /s/ correctly, as its correct production scored 100 per cent for almost all the terms, except for the production of **kyth*, whose correct production scored 96 per cent.

With regard to production of the /iz/ allomorph, Table 8 shows that the subjects of this study found difficulty producing this allomorph. None of the terms scored l00 per cent. The highest percentage scored in the production of words that add the /iz/ allomorph was 90 per cent, which was scored by **feech* and **frash*. **Mace* and **nuce* came next, as both words scored 88 per cent. **Lish* and **fladge* scored 86 per cent and 84 per cent respectively, while **flerch, *threez* and **ladge* scored 82 per cent. **Trize* scored lowest among this group, with 80 per cent.

Table 8 also shows that the group of words that add the /z/ allomorph scored the lowest percentages of correct production compared to the percentages of production of /s/ and /iz/. All participants produced the word **stee* correctly. **Frem* was the word with the second highest percentage of correct production, scoring 94 per cent. **Blove* and **skug* came next: they scored 86 per cent and 84 per cent respectively. The correct production of **san* scored 38 per cent, while **thill* and **tred* scored 36 per cent and 32 per cent respectively. **Ferd* scored 26 per cent and **lin* scored 20 per cent. The term **thribe* achieved the lowest percentage of correct responses, not exceeding 4 per cent.

Even though the /z/ allomorph is considered the phonological form or the mental representation of the plural morpheme in English, fourth-year subjects found real difficulty with correct production of the /z/ allomorph. As was the case with the production by the first-year students, fourth-year students' production revealed an unexpected difficulty, especially as they had not only been exposed to the English language throughout their scholastic years, but had also been majoring in English for three and a half years. They are expected to be aware of such phonotactics of the English plural morpheme. Surprisingly, their competence has not fully developed yet.

The data set elicited from the fourth-year students also shows no particular phonological reason for the problems reflected in the production of the three allomorphs. There is no relationship between the last sound of the word stem and the incorrect production of the allomorph. There is a clear discrepancy between the production of the /z/ allomorph in words that end in the same sound. For example, although **ferd* and **tred* end in the voiced alveolar /d/, the percentage of correct responses for **ferd* was 26 per cent, while **tred* had a percentage of 36 per cent. Such a discrepancy is also shown in the production of **lin* and **san*, which both end in the alveolar nasal stop /n/. The former scored 38 per cent, the latter 20 per cent. **Frem*, which ends in the bilabial nasal stop, scored 94 per cent. This makes it difficult to justify the production problem from the perspective of the natural classes, too. All the participants produced the stem that ends in a vowel correctly. However, only two of the participants produced the stem that ends in /b/ correctly.

This explanation cannot be said to apply to the production of the /iz/ allomorph in stems ending in sibilants. The discrepancy in the production of the /iz/ allomorph can be said to be insignificant by virtue of the very close percentages of correct productions shown by word stems that end in the same phoneme.

Stems ending in the voiceless fricative /s/ scored the same percentage of correct production (88%). Stems ending in the voiceless palate-alveolar scored 90 per cent and 86 per cent. Those stems, which end in the voiced affricate, scored 82 per cent and 84 per cent. Overall, we can say that the discrepancy in the production of the allomorph /iz/ in stems that end in sibilants is negligible.

Concerning the production of the allomorph /s/, only two instances of incorrect production of /s/ were noticed in the word **kyth*. The /s/ allomorph was replaced by /iz/. Otherwise, the participants found no problem in the production of this allomorph.

Students' Repair Strategies

The only repair strategy this group of students resorted to in the process of producing the three allomorphic variants was replacement. A slight difference was detected between the use of the only repair strategy by the two groups. Fourth-year students' incorrect production of the /z/ allomorph took the form of replacing /z/ with /s/. This is illustrated in Table 9.

Table 9

Students' replacement of the /z/ allomorph

/s/	/iz/	/is/
100%	0%	0%

On the other hand, in the production of the /iz/ allomorph, students' repair strategies varied and overlapped. No particular pattern in the use of the repair strategy was detected. The production of the allomorph /iz/ took the form of replacing it with either /z/, /s/ or, unexpectedly, /is/. Just as for the first-year students, replacement with the non-existing /is/ was used more frequently than /s/ and /z/. This is illustrated in Table 10.

Table 10

Students' replacement of the /iz/ allomorph

/is/	/z/	/s/
69%	16%	15%

Finally, /s/ also underwent only two instances of replacement. It was replaced by /iz/ in both instances. Table 11 illustrates the repair strategy of this allomorph.

Table 11

Students' replacement of the /s/ allomorph

/is/	/z/	/iz/
0%	0%	3%

Apparently, fourth-year students also encountered a problem with the production of the English plural allomorphic alternates. The only repair strategy that was used by the students was replacement. Replacement of the allomorphs overlapped. Students' production was not based on the phonological structure of the stem. The students' choice of replacement for the expected allomorph was not based on the phonological structure of the stem, either. Not only did the students mix the production of the three allomorphs of the plural, but they also created a fourth one—namely, /is/.

Comparing the First-Years' Results to the Fourth-Years' Results

Comparing the first-year students' to the fourth-year students' results makes it clear that the students' competence has developed to a certain degree over their university years. This is obvious in the percentages shown in Table 12. The fourth-year students outperformed the first-year students.

Table 12

Total correct responses of the two groups

Allomorphic variant	First-year students' performance	Fourth-year students' performance
/s/	95.2%	99.6%
/z/	42.2%	52.0%
/iz/	60.8%	85.2%
Students' total performance	56.0%	79.0%

Table 12 shows a comparison between the overall performance of the first-year students and the fourth-year students. As can be seen in the table, there is a clear development of the students' competence regarding the different phonetic productions of the English plural morpheme. This is evident in the increased percentage of the fourth-year students' production. However, it is clear that this competence does not yet match native speakers' competence. It has not fully developed to the extent that their production is error-free.

Furthermore, Table 12 shows that in their correct responses for the three allomorphic variants, both groups scored highest in favor of /s/ followed by /iz/. The allomorph /z/ saw the fewest correct occurrences in both groups' productions.

Although both groups encountered difficulty in producing **kyth* with the proper pronunciation of the morpheme -s, the fourth-year students' production was more accurate than the first-year students.' Since **kyth* was the only term which was produced incorrectly by the fourth-year students, it is fair to overlook this incorrect production.

The first-year students ran into problems with **kyth*, **bonth*, and **throp*. The fact that the first three words end in a fricative and that /s/ is also a fricative led Al-Janaideh and Mahadin (2015) to attribute this kind of problem to the manner of articulation of the final sound of the nonsense words. However, this interpretation fails to account for this phenomenon in this current study, because the same group's production of **bliff* scored 100 per cent. The same group erred in the production of **throp* (92%); however, they scored 100 per cent in the production of **klop*.

The /z/ allomorph, on the other hand, scored the lowest correct responses in spite of the fact that it was expected to be produced correctly by virtue of its being the underlying phonological form of the morpheme. This is true for the production of both groups. Table 13 compares the production of /z/ by both groups.

Table 13

The production of /z/ by both groups

First-Year Students' Production	ferds	treds	skugs	frems	bloves	zins	sans	thills	thribes	stees
Number of incorrect productions	39	41	15	11	15	40	30	39	50	9
Percentage incorrect	78	82	30	22	30	80	60	78	100	18
Average incorrect	80					70				
Percentage correct	22	18	70	78	70	20	40	22	0	82
Average correct	20					30				
Fourth-Year Students' Production	ferds	treds	skugs	frems	bloves	zins	sans	thills	thribes	stees
Number of incorrect productions	37	32	8	3	7	40	31	34	48	0
Percentage incorrect	74	64	16	6	14	80	62	68	96	0
Average incorrect	69					71				
Percentage correct	26	36	84	94	86	20	38	32	4	100
Average correct	31					29				

We supposed that the /z/ allomorphic variant of the plural morpheme is stored mentally in the students' capacities after being exposed to the English language formally and informally. In particular, fourth-year students were expected to excel in the production of this variant, because they were expected to have developed a competence that would enable them to realize the mental representation of the plural morpheme. However, this expectation was not realized, as can be seen from the percentages in Table 13. A slight improvement can be seen in the fourth-year students' production, but it was not up to the level of expectation. As mentioned earlier, no particular pattern was detected in the students' responses. The stem which ends in a vowel had the highest percentage of correct production by both groups. The stem that ends in /b/, however, had the lowest percentage of correct production by both groups. Among fourth-year students, 96 per cent of production was incorrect; among first-year students, all production was incorrect. Stems ending in /d/ and /n/ witnessed poor production by members of both groups. The average percentages of incorrect responses by fourth-year students were 69 per cent and 71 per cent respectively for stems that end in /d/ and /n/. The first-year students performed less accurately. Their average percentages of incorrect responses were 80 per cent and 70 per cent respectively. The stem ending in the bilabial nasal stop scored the second lowest percentage in the production of both groups.

The fact that students in both groups tended to replace the /z/ allomorph with /s/ shows a partial agreement with Al-Janaideh and Mahadin's (2015) study. Their study showed evidence for the attachment of /s/ instead of /z/ by members of the older group rather than the younger one. They tried to justify their subjects' performance by stating that their subjects preferred using the voiceless /s/ after the voiced /b/ to using the voiced /z/. Our data show a tendency to replace the /z/ with /s/ among members of both groups. However, this tendency decreases in the performance of the older group.

This current study also showed that not only did almost all members of both groups prefer using /s/ to using /z/, but they also devoiced the last segments in **thribe*, **blove*, and **skug*. This devoicing resulted from a kind of regressive assimilation. Regressive assimilation was also attested in Berko's (1968) experiment when her subjects voiced the final /f/ in **heaf*. However, our subjects preferred to devoice final segments to assimilate them with /s/ rather than voice them.

The fact that our subjects tended to devoice stem final segments is consistent with Peng and Ann's (2004) study. Their subjects also showed a preference to devoice the stem final segment and add /s/ in the word *hands*, which was produced as /hants/. Their explanation for this phenomenon was based on first language interference rather than English phonological rules or phonetic similarity. This first language interference justification may also apply to our subjects' production. The reason that our students' production of /s/ almost hit

the ceiling and they chose to replace /z/ with /s/ could reflect interference by the students' mother tongue in the production of the English allomorphic variants. The Arabic phoneme /s/ has only one mental representation and one phonetic production [s]. Apparently, what they were producing was actually the Arabic /s/ phoneme rather than the English allomorphic variants.

As far as the /iz/ allomorph is concerned, students in both groups performed better when attaching /iz/ to stems ending in sibilants than when attaching /z/ to stems ending in voiced sounds.

This finding of this preference contradicts findings in previous studies. Berko (1958) posited that the plural allomorphic variant /iz/ was acquired last. She attributed this to the fact that children were dealing with these stems as if they were already in the plural form by virtue of the sort of sound with which each stem ended. Al-Janaideh and Mahadin (2015) also found that this allomorph was the last to be acquired by their students. At the other extreme, the current study revealed a preference to produce /iz/ correctly rather than producing /z/. Table 14 provides a comparison between both groups' production as far as the allomorph /iz/ is concerned.

Table 14

The production of /iz/ by both groups

First-Year Students' Production	flerch	feech	nuce	mace	trize	threeze	fladge	ladge	lish	frash
Number of incorrect productions	29	21	7	14	23	14	30	28	16	14
Percentage incorrect	58	42	14	28	46	28	60	56	32	28
Average incorrect	50		21		37		58		30	
Percentage correct	42	58	86	72	54	72	40	44	68	72
Average correct	50		79		63		42		70	
Fourth-Year Students' Production	flerch	feech	nuce	mace	trize	threeze	fladge	ladge	lish	frash
Number of incorrect productions	9	5	6	6	10	9	8	9	7	5
Percentage incorrect	18	10	12	12	20	18	16	18	14	10
Average incorrect	14		12		19		17		12	
Percentage correct	82	90	88	88	80	82	84	82	86	90
Average correct	86		88		81		83		88	

As can be inferred from Table 14, both groups scored the highest percentage correctly producing /iz/ in stems that end in /s/ and /sh/. Stems ending in /z/ came next in correct production by the first-year group, while stems ending in the voiceless palato-alveolar affricate /ch/ came next in correct production by the fourth-year students. The first-year students scored the lowest percentage of correct production of stems ending in the voiced palato-alveolar affricate / dg/ sound. The fourth-year students scored the lowest percentage of correct production of stems ending in the /z/ sound.

Concerning the most preferred repair strategy, both groups showed a preference for replacing /iz/ with /is/. This indicates that all members of both groups are aware of the fact that these nonsense words are singular and to pluralize them they need to be inflected. That is why none of the students left a word without the plural morpheme. However, once again, first language interference is detected in the students' tendency to add /is/ instead of /iz/. As mentioned earlier, the Arabic language has the voiceless fricative phoneme whose phonological form is /s/ and has only one phonetic realization, [s].

Conclusion and Recommendation

This study aimed to investigate Jordanian university students' level of awareness of the morphophonemic nature of the English plural marker. Partial consistency was detected between findings in this study and findings of other studies in the literature. Discrepancies are reflected in the following four points.

First, there is a difference in the order of acquisition of the allomorphic variants of the regular plural marker. Subjects in this study tended to master the production of /s/ followed by /iz/, finally mastering /z/. In Berko's study (1958), /iz/ was acquired last. In Al-Janaideh and Mahadin's study (2015), /iz/ was also found to be acquired last.

Second, is reflected in the process of regressive assimilation. Subjects in this study tended to devoice final consonants to assimilate them with /s/, whereas, in Berko's (1958) study, subjects voiced final voiceless consonants to assimilate them with /z/. However, subjects' tendency to devoice final consonant to assimilate them with /s/ in this study is consistent with Peng and Ann's (2004) study.

Third, which makes the results of this study differ from others, is that younger subjects in this study had a greater tendency to use /s/ instead of /z/ compared with older subjects. Al-Janaideh and Mahadin's (2015) older subjects, on the other hand, tended to replace /s/ with /z/ more than the younger subjects did.

Fourth, subjects in this study tended to use /is/ in place of /iz/. This form of replacement has not been attested in any of the previous research.

We hypothesize that the excessive use of /s/ instead of /z/ and /is/ instead of /iz/ resulted from first language transfer. Students were applying the phonotactics of Arabic to the English plural morpheme and to its various phonetic productions.

In order to enhance their students' awareness of the morphophonemic nature of the English plural morpheme, teachers are advised to draw the students' attention to this phenomenon directly. That is to say, teachers should teach this morpheme and its phonetic variables deductively. Now that the students are aware of the fact that they are learning English and are capable of realizing and understanding such complicated issues, there is no harm in pointing out the difference between the three phonetic variants of the plural morpheme explicitly and directly. Steinberg and Sciarini (2006) posit that older learners of a second language possess a cognitive capacity that enables them to think about, analyze and comprehend such abstract issues through explicative methods.

Additionally, instructors should draw their students' attention to the phonological rules that govern the distribution of the plural morpheme in English. In addition, instructors are encouraged to use the students' mother tongue as a facilitating factor by comparing and contrasting the status of the /s/ phoneme in both languages.

It is also recommended that research be conducted and an acoustic analysis carried out to test the authentic sound of [s] produced instead of [z]. In other words, acoustic analysis will yield results that are more accurate in terms of whether or not the students devoice the [z], notwithstanding the fact that Arabic speakers do not devoice final consonants in Arabic.

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Das Bewusstsein des Vorhandenseins verschiedener phonetischer Varianten des englischen pluralbildenden Morphems unter Studenten der Universität von Jordanien

Zusammenfassung

Im vorliegenden Artikel wird einer Analyse unterzogen, inwieweit die Studenten der Universität von Jordanien in der Fachrichtung Anglistik das Bewusstsein des Vorhandenseins verschiedener phonetischer Formen bzw. Varianten des englischen pluralbildenden Morphems haben. Die Analyse bezieht sich auf die Ergebnisse einer Umfrage, an der sich 50 Studentinnen des vierten Studienjahres und 50 Studentinnen des ersten Studienjahres an der Princess Alia University College, Al-Balqa Applied University Amman beteiligt haben. Den Teilnehmerinnen wurden Listen mit je 30 zufälligen einsilbigen Substantiven ohne Sinn zur Verfügung gestellt, um ihr Bewusstsein im Bereich verschiedener phonetischer Formen des englischen pluralbildenden Morphems zu prüfen. Dabei stellte es sich heraus, dass die Studentinnen des vierten Studienjahres bessere Ergebnisse hinsichtlich der Produktion von verschiedenen phonetischen Formen des englischen pluralbildenden Morphems erzielten als die Studentinnen des ersten Studienjahres. Die beiden Gruppen verwendeten dieselben Strategien in Bezug auf die Fehlerkorrektur und benutzten in ihren Antworten die Analogien zur Muttersprache.

Schlüsselwörter: pluralbildendes Morphem, phonologische Formen, phonetische Variante

Reviews

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Sarah Mercer, Tammy Gregersen, *Teacher Wellbeing* [Handbooks for Language Teachers]. Oxford: Oxford University Press, 2020. ISBN 978-0-19-440563-8, 155 pp.

The book *Teacher Wellbeing* is a long-awaited resource handbook for (language) teachers. It comes from two renowned scholars, Sarah Mercer and Tammy Gregersen. They are both well-known for their pioneering work on positive psychology applications in second language acquisition and foreign language teaching and learning contexts. The present book is also written within the paradigm of positive psychology and the PERMA model of Martin Seligman (also the EMAPHATICS framework of Rebecca Oxford) in its understanding of human emotions, character strengths, relationships and enabling institutions as applied in teaching contexts.

The choice of the topic's focus, which is the well-being of a language teacher, is justified by scarcity of material on how to keep teachers happy and functioning effectively and with full satisfaction in their jobs. As a consequence, advice given in the book shows how to avoid burn-out after some years spent in the classroom and how to keep high spirits and at least some degree of satisfaction and happiness in doing this demanding job. The aims that the authors set for themselves are to introduce and make teachers aware of the concept of teacher well-being in its different dimensions, pointing out its importance as a necessary condition for learner well-being. As the authors say in the Introduction, "[d]rawing on research, we want to guide you towards a recognition of the importance of self-care, not only for you personally but also for your capacity to teach to the best of your abilities" (p. 1). A teacher who cares about his/her wellbeing is also seen as being well-prepared to develop his/her learners' well-being. So the authors offer a helping hand to teachers not only in making them aware,

but also in offering ideas on how to develop their wellbeing in various dimensions.

The book contains eight chapters, an extensive bibliography and, importantly, a glossary of terms and an index. The chapters constitute a comprehensive picture of the concept of (teacher) wellbeing, as each of them focuses on a different aspect of wellbeing. The book starts with the introductory text entitled "It's All about Me," which offers a justification for the topic, defines the concept of wellbeing and gives an outline of the book to help the readers make the best use of it. It resembles a guidebook leading its readers through different domains of well-being, where the authors discuss both external factors such as workplace and institutions, and internal qualities (mindsets, emotions) conducive to (or impeding) the development of one's state of wellbeing. Wellbeing is portrayed from the personal perspective of an individual but importantly the role of context and collaboration are also stressed as part of it.

What is to be found in the chapter to follow, "Me and My Workplace" is the idea of a positive (enabling) institution, a construct well-known from positive psychology and defined as a place of work which allows the teacher to thrive both as a teacher and as a human being, to be autonomous and creative but, at the same time, to be able to identify with the institution. The authors believe that "the well-being of language teachers is a shared responsibility—for individuals and institutions as well as for wider educational and cultural systems" (p. 33), thus promoting a proactive approach of the teacher which will allow him/her to improve the workplace through autonomy and innovation. In turn, the chapter "Me and My Mind" introduces the role of self-beliefs, mindsets, multitasking—all the different facets of how our mind and the beliefs we hold influence what we do and how we do it. As the authors put it, "[…] we have asked you to reflect on how the habits of your mind influence the way you see yourself, juggling the multiple identities and roles" (p. 48). The next chapter, "Me and My Motivation" offers teachers a moment of reflection on different dynamics of teacher motivation combined with learner motivation and the role of achievement in the former case. The main consideration is said to be "the role of time as a resource, and how safeguarding time and using it wisely can sustain language teachers' motivation […] the boost to our wellbeing that can be found through achievements, and the especially gratifying emotions that ensue when such accomplishments are savoured" (p. 67). Being a teacher and functioning in a given educational context (and beyond it) is the main theme of "Me and My Relationships," where the role of interaction (for example, a rapport with learners and with colleagues) is reflected upon and the development of socio-emotional competences is seen as fundamental. The authors focused, among other things, on "how we can strengthen our relationships with and between learners, and also with colleagues, by attending to our interactional style" (p. 85). One of the corner-stone principles of positive psychology is portrayed in

the chapter on "Me and My Emotions," where the authors reflect on the multiplicity of emotions that exist in the workplace and assign a major role to them in managing teacher well-being. Thus, the chapter looks at Hochschilds's idea of emotion labor (Hochschild, 1983), this time in the educational context to cope with a variety of teacher personal anxieties, emphasizing the role of compassion—for oneself and for others. The authors, however, express the belief that "[s]elf-compassion needs to come first; only then we are in a position to share strength and positivity with others" (p. 101). The holistic view of human functioning so strongly promoted by humanistic psychology, and now by positive psychology, in particular postulates the view that physical well-being is also a necessary condition for success in life, here teacher life (the embodied mind). Thus, the chapter "Me and My Physical Wellbeing" reflects upon how stress and an inappropriate (unhealthy) balance between one's personal life and work can affect one's physical condition. The authors propose the need to achieve the physical wellbeing of teachers by "improving time management, rethinking how one perceives stressors, optimizing beneficial stress, and reducing negative concerns" (p. 117). In the concluding chapter, "Me and My Future," the need to reflect on one's personal development combined with personal growth and taking pride in being a teacher are the major focus. The authors ask the readers to visualize their ideal self, ought-to-be self, and feared self in a form of reflection looking into their future as (language) teachers. The authors also stress the importance of professional development through exploratory practice (EP), in which a teacher becomes a researcher in his/her own pedagogical context but, at the same, time stressing the need for Appreciative Inquiry for teacher wellbeing (4D model). In conclusion, the authors once again express their main aim in publishing a practical manual in language teacher wellbeing and offer a way forward for readers in the form of a list of questions for action, which are meant to "motivate you and inspire you to take steps towards wellbeing goals that are realistic, meaningful, and sustainable for you" (p. 130).

In terms of presentation, each aspect of well-being is reflected upon in an individual chapter in a structured way. On each occasion, the authors introduce some theory; digested enough not to be too heavy for the readers. In this way, it constitutes background and gives credibility to what is the core of each chapter, that is, "a moment of reflection" for teachers based on a carefully constructed variety of tasks to be performed. The tasks embrace various reflective activities in a form of short surveys, each relating to a given aspect of well-being, sharing thoughts and observations with other colleagues in the staffroom, assessing one's development over a prescribed period of time, making pledges, using De Bono's six hats, challenging one's beliefs through reflection, to mention just a few. It is not only the "Be Inspired" quotations that the authors placed in each chapter, but also the tasks, which are so well-focused and uplifting that compel to become engaged in these genuinely creative awareness-raising activities. The

tasks in each chapter are followed by a brief summary and a set of questions for individual reflection. For those who would like to read a bit more on a given topic, the authors have prepared a list of further reading for each chapter.

There is much to admire in the comprehensive content, clarity of expression and engaging character of reflective tasks. The main merit of the book, I would say, is its treatment of the topic of teacher wellbeing, which is fundamental in helping teachers to discover or recover their sense of professionalism and the satisfaction they can draw from it. Second, the book is grounded in theory but balances it well with practical applications and advice. Last, it is so well-structured and reader-friendly that it cannot help but be engaging and inspiring. It clearly demonstrates the authors' passionate desire to pass on their conviction to other teachers. The authors cut the distance between themselves and the reader by using an informal *you* form of address, which creates a climate of caring and sharing (Moskowitz, 1978).

If I were to point out an element that is perhaps less achieved, it would be that although the authors refer to language teachers as addressees of the book, language teaching itself is not developed equally strongly throughout the book. It is loaded with specific anxieties of a linguistic nature (Am I good enough to teach a language? Will my learners spot my mistakes? Will I lose authority?). On the other hand, all that is said and reflected upon in the book is universal for all the teachers. It demonstrates what significant implications positive psychology may have for teachers (and learners) and contributes to a whole body of research and its practical applications for (foreign language) education and beyond that, for the personal growth of teachers.

I believe that this publication, although meant to be a handbook for language teachers, is much more valuable than that. It can become an important source for mentors, teacher trainers, and their trainees as well as for scholars not working in the area of second language acquisition and foreign language teaching. Above all, it is an effective tool for making the reader reflect. This is in fact the authors' ultimate goal, as they themselves write, "We hope this book offered you support in nurturing your wellbeing and understanding the value of self-care for your personal and professional lives" (p. 129). Certainly, this book has the potential to achieve this ambitious outcome.

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Ali H. Al-Hoorie and Peter D. MacIntyre (Eds.), *Contemporary Language Motivation Theory. 60 Years since Gardner and Lambert (1959).* Bristol: Multilingual Matters, 2020, ISBN 978-1-78892-518-1, 344 pages

The publication of Gardner and Lambert's article on motivational variables in 1959 marked the beginning of a new theoretical framework and gave rise to a novel line of enquiry that has resulted in an unabated succession of books, articles, research projects, dissertations, and theses addressing the theme of the social psychology of language learning. The appeal of the theory seems never to have withered; on the contrary, the socio-educational (SE) model inspires new generations of scholars and students who challenge or expand it to build their own understanding of motivation for second language acquisition. To celebrate the 60th anniversary of the publication of Gardner and Lambert's seminal work, his colleagues, former students and their present students have compiled an anthology, *Contemporary Language Motivation Theory. 60 Years since Gardner and Lambert (1959)*, comprising contributions on a wide range of topics, from sociology, social psychology, language acquisition to methodology that attest to the incessant impact of Gardner's thought. The festschrift's editors, Ali H. Al-Hoorie and Peter D. Macintyre, open the volume with a quote explaining, in Gardner's own words (1985, p. 166), that any theory's value is measured not only by its ability to elucidate and expound relevant phenomena but also "[by] its ability to provide suggestions for further investigations, to raise new questions, to promote further developments and open new horizons." This volume proves that Gardner's theory has met the criteria.

In the Foreword, Zoltan Dornyei, while writing mostly about himself, acknowledges the relevance of Gardner's notion of integrativeness to the study of motivation, echoing his earlier declaration that the recognition of the social

dimension of second language learning was "the most important milestone in the history of L2 motivation research" (Dörnyei, 1994, p. 519). Noteworthy is also the fact that Robert Gardner himself contributed a chapter ("Looking Back, Looking Forward") to this volume, presenting an overview of the 60 years of research he and his colleagues conducted before and after his SE model was formulated, involving the construction of the Attitude Motivation Test Battery and subsequent structural equation modelling of the processes underlying the SE framework, as well as considering directions for further developments inspired by his theory. The diverse chapters that make up the volume have been grouped under four headings: Part One: Second Language Development/Applied Linguistics, Part Two: Social Psychology/Sociology, Part Three: Historical/Methodological Issues, and Part Four: Discussants. Part One comprises four contributions mostly theoretical in character that look into how various aspects of SE theory resonate with other frameworks or more recent developments in second language acquisition. Part One opens with the chapter by Tammy Gregersen, Peter MacIntyre, and Jessica Ross, "Extending Gardner's Socio-educational Model to Learner Well-being: Research Propositions Linking Integrative Motivation and the PERMA Framework" that accentuates analogies between Gardner's integrative motivation and Seligman's (2011) PERMA model, and positive psychology in general. The authors first present origins and stages of development of the SE model and positive psychology, discuss components of the PERMA framework and show how its dimensions correspond to Gardner's theory. The chapter ends with three propositions for empirical exploration of the overlap between the two theories, which proves that the novel approach offered by positive psychology could inspire innovative thinking about now classical motivational constructs. Mercé Barnaus in "Teacher' and Learners' Motivation in Multilingual Classrooms" takes the perspective of European language education policies to trace the impact of motivation and attitudes on success and failure rates in language learning. She recognizes the significance of the social dimension in language development and encourages building communities of practice that could bring together linguistically and culturally diversified learners and teachers whose cooperation, collaboration, sharing of ideas and viewpoints can be performed in project work and content-based teaching. The contribution by Peter MacIntyre, Jean-Marc Dewaele, Nicole Macmillan, and Chengchen Li, "The Emotional Underpinnings of Gardner's Attitudes and Motivation Battery," revolves around the affective dimension of the SE model and Attitudes/Motivation Test Battery (AMTB). Inspired by a more recent understanding of the difference between negative and positive affect as qualitatively distinct types of influences rather than opposite ends of the same spectra, the authors present accounts of two studies that examined correlations between the AMTB and the Positive and Negative Affect Schedule, the tool that uses two distinct scales to tap into positive and

negative emotions. The results show that positive emotions affect learners' attitudes towards different aspects of language learning that in turn support integrative motivation. James P. Lantolf and Merill Swain, in their chapter "Perezhivanie: The Cognitive-Emotional Dialectic within the Social Situation of Development," employ Vygotsky's notion of perezhivanie, a construct whose complexity and uniqueness evades a simple translation into "emotional experience, as it comprises both the how and what is experienced: an activity and its content. The authors elaborate on the idea of inseparability of emotion and cognition and show how the socially grounded perezhivanie can be used to reexamine basic assumptions underlying second language acquisition. They also encourage further research informed by various theoretical models to see the extent of overlap and difference in ways the connection between emotionality and cognition is understood.

Part Two consists of three papers representing the social psychological or sociological perspective revolving around notions of identity, motivations, and investment. The first of them, "Identity, Adaptation and Social Harmony: A Legacy of the Socio-Educational Model" contributed by Sara Rubenfeld and Richard Clément contains an overview of research into the impact of the relationship between learners' own and target language communities on language development in and out of the classroom, as well as a summary of various non-linguistic outcomes of language learning of cognitive, affective and behavioral nature. Jorida Cila and Richard N. Lalonde in "What's in a Name? Motivations for Baby-Naming in Multicultural Contexts" summarize their research aimed at understanding motivations behind the choice of names for children born in bicultural families in Canada. Gardnerian notions of integrative and instrumental motives account for a preference for ethnic names that accentuate links to heritage culture as well as a preference for mainstream Canadian names, which suggests a need to integrate with the new ethnolinguistic community, also to prevent prejudice or discrimination. Bonny Norton's chapter, "Motivation, Identity and Investment: A Journey with Robert Gardner," is a slightly nostalgic journey through time and an account of a dialogue continued over the years between the author's own and Robert Gardner's work. The scholar describes inspiration and support Gardner's ideas have provided and elaborates on ways in which her own theories have evolved.

Part Three, Historical/Methodological Issues comprises five contributions, which, as the title explains, concentrate on issues related to methods of data collection and analysis applied to investigate various aspects pertaining to the SE framework, alternative models, and other related phenomena. It transpires that Gardner's thought not only advanced the theory of motivation but also contributed to developments in research methodology in the field. Rebecca Oxford in "Snapshots in Time: Time in Gardner's Theory and Gardner's Theory across Time" considers the issue of time and change presenting seven snapshots

of Gardner's work that exemplify his use of terminology, understanding of the place of an individual in his theory, a dynamic character of motivation, an interplay between affect and cognition, as well as applicability of SE theory for teaching and learning. In the third chapter in this section "Researching L2 Motivation: Re-evaluating the Role of Qualitative Inquiry, or the 'Wine an Conversation' Approach," Ema Ushioda, in a largely personal tone writes about her own contribution to language motivation research in the form of qualitative enquiry. She takes the 30 years' perspective to readdress and reevaluate the role of qualitative research paradigm, once a peripheral but today mainstream approach to the study of L2 motivation. Focused on quantitative research, in turn, is the chapter authored by Paul T. Tremblay, "Quantitative Methods in Second Language Learning Motivation Research: Gardner's Contributions and Some New Developments." Here the author discusses Gardner's applications of quantitative methods to the study of individual differences, motivation, and attitudes, including factor analysis and structural equation modelling and how these practices have influenced the field. Moreover, within this tradition, the author presents more recent statistical procedures applicable to the study of motivational variables. Jennifer Claro in her "Identification with External and Internal Referents: Integrativeness and the Ideal L2 Self" proves that the concept of Gardnerian integrativeness cannot be easily replaced by Dörnyei's Ideal L2 Self as the two relate to different loci of control, one external and the other internal. Instead, the author offers a model that incorporates both constructs in the form of active internalization with external and internal sources, operating in a complimentary way. This part of the book closes with John Edwards' contribution, titled "History, Philosophy and the Social Psychology of Language," which acknowledges the centrality of Garden's work to the emergence and development of the social psychology of language. In his essay, Edwards provides a broad historical and philosophical perspective on the field, not without criticisms, and notes its influence onto other areas, such as the sociology and politics of language, and applied linguistics.

In the final section of the book, three discussant chapters consider Gardner's contributions from various perspectives. Phil Hiver and Diane Larsen-Freeman in their "Motivation: It is a Relational System" employ complexity theory to reflect on the relational character of language learning motivation. Elaine Horwitz in "How Robert C. Gardner's Pioneering Social-Psychological Research Raised New Applied Questions about Second Language Acquisition" looks at the impact of Gardnerian thought on the field of second language acquisition and Howard Giles in "Epilogue: Gardner's Far-Reaching Impact Beyond Language Learning" in a warm and personal tone reflects on Gardner's career and contributions with an emphasis on their importance to the field of the social psychology of language.

The volume Al-Hooire and MacIntyre edited to honor and celebrate Gardner's 60 years of legacy offers a comprehensive account of the history as well as the present day advances of the SE model. Links between the SE framework and second language acquisition, applied linguistics, social psychology and methodology presented here clearly demonstrate the scale of impact of Gardner's ideas. The picture that emerges from the volume put together by top researchers is that of an esteemed and outstanding scholar, inspiring teacher and colleague, and a friend.

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