# THE EFFECT OF COMPUTER-ASSISTED GAMIFIED LEARNING
# ON STUDENTS' ATTITUDES AND PROGRESS
# IN ADVANCED GRAMMAR CLASS

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**Abstract**

The paper looks at how an eclectic, gamified course design affects student attitudes to learning grammar as well as how effective such a design is in terms of final-exam results. Described and discussed here is a 2-year study investigating such digital enhancement in a Practical Grammar class. Carried out as experimental, the study involved 2 groups of first-year students of the English Studies programme at the Pedagogical University in Cracow, Poland. In the first research group (N1e=14), which underwent the treatment in the academic year 2016/2017, the traditional grammar class was replaced with a quasi- experimental instruction including elements of gamification, digital input flooding (including pull and push presentation techniques) and enhancement as well as collaborative (structure flashcards and grammar memes) and exploratory (structure samples from multimedia) learning of grammar. At the end of the course, the students' result of the final grammar test were gathered and compared with the results of the population of first-year students (N1c=113) in whose case the traditional treatment (lecture on rules plus practice in class; practice at home). Additionally the students' attitudes towards various aspects of the experiment were checked with a survey. The same treatment was repeated (N2e=13; N2c=78) in the academic year 2017/2018. Data analysis shows that while the experimental treatment proved equally effective examwise, various factors, such as learner individual differences and material specificity need to be taken into account.

**Keywords**: focus on form pedagogy; technology-enhanced grammar learning; gamification

## 1. Introduction

Different approaches to grammar pedagogy can be placed on a continuum. It starts with non-interventionist, implicit modes inspired by Krashen's (1983 and later works) comprehensible input sufficiency claim. Then it goes through various forms of input enhancement and awareness raising. At the other end of the continuum there are explicit focus on form, either

inductive or deductive. Researchers agree[1] that best pedagogical results come if this continuum is treated as a repository based on which an eclectic approach to grammar teaching is developed; an approach comprising implicit and explicit learning; input flooding and input enhancement; inductive and deductive teaching. The rationale behind this is multifaceted, the most important arguments for said diversification of focus on form being individual learner differences as well as different grammars to be taught. In the former case the type of language aptitude will be a deciding factor (Skehan 2003); or whether the learner is oriented towards memory or analytic-ability. In the latter case, the different grammars – grammar of rules, grammar of patterns and grammar of basic semantic distinctions (as Lewis, 1986; Willis, 2005) – will require different pedagogical measures. All in all, effective focus on form boils down to intelligent navigation between the options available.

In the day and age of computer-assisted education, form-focused instruction can be enhanced with the use of ICT. There is ample research reporting the various effects of CALL in grammar pedagogy and the different ways in which they can be obtained. These ways include different exploratory and context-based modes of learning informed by language corpora; techniques relying on the power of multimedia presentation of context; input enhancement; collaborative learning of grammar; as well as mobile push and pull techniques. While the effectiveness of the individual ways of digital enhancement of grammar pedagogy has been studied, there is no research looking at combining these different techniques. The present paper sets out to fill in the gap by investigating how new technologies can be used in an eclectic way to enhance the focus on form.

The treatment was implemented twice between the years 2016-2018 in two groups of students learning the practical grammar of English in the course of their language studies programme. In both editions of the grammar course, the implementation was subject to research the results of which are reported in this paper. Based on the outcome, the present paper reflects on the complexity of computer-assisted grammar learning. In doing so, it attempts to analyse the connections between the techniques applied and the individual differences, both learner- and content-related. It also looks at the relationship between the treatment applied and the exam result. The analysis leads to a number of conclusions and pedagogical implications.

## 2. Literature review

The various effects of technology-enhanced grammar education reported in research to-date

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[1] For a comprehensive overview of relevant research in this area, cf. Turula (2011).

can be ascribed to a number of categories. The main areas of study include: the application of the mobile learning and its techniques; the use of the digital for the purpose of exploratory learning of grammar, including corpora-based / Data-Driven Learning (DDL) and the multimodal expansion of the context; input enhancement in online learning; collaborative (2.0) learning of grammar; as well as the role of individual differences in preferences of the learners involved. The foci and findings of the various studies are presented in this section.

## 2.1. Mobile technology and its techniques in focus on form

Several studies in this area examine various mobile focus-on-form applications. For example, Li and Hegelheimer (2013) show the effectiveness of Grammar Clinic, designed for out-of-class grammar exercises in which the user need to identify and correct error on the sentence level.

In addition to applications dedicated to grammar learning, focus-on-form MALL pedagogy takes advantage of popular mobile learning techniques, such as the push technique. Based on a study carried out alongside a learning project in which reading and grammar materials were sent regularly to the students' mobile phone, Wang and Smith (2013) show that the push was seen by the participants as a rather positive experience. At the same time, though, the authors point out that for this technique to be successful, several conditions need to be met, such as relative attractiveness, simplicity and brevity of the materials expedited as well as teacher monitoring of the process reinforced by students' motivation and their sense of privacy being respected. Even though these conditions place a lot of responsibility on the teacher, they seem worth implementing for the sake of the treatment whose effectiveness was confirmed by a newer study. Its authors, Hedjazi, Moghari, and Marandi (2017), show a significant difference in the grammar learning in favour of the participants whose learning was based on text-pushed grammar learning activities. It seems that grammar rules can be pushed as effectively, especially in the light of AbuSeileek's research (AbuSeileek 2009) demonstrating that computer-based learning methods are functional for more complex and elaborate structures, as long as the more complicated grammar structures are taught deductively.

## 2.2. Learning grammar through digital exploration

As for the exploratory approach to learning grammar, research proof of its effectiveness starts with Manning (1996), who presents study results showing that this teaching philosophy, especially if computer-assisted, has a number of advantages over more traditional, explicit or implicit approaches. Not only does it increase learner motivation and autonomy but it also is

more effective pedagogically. In a more recent study, Karström et al. (2007) show how a CALL exploratory learning environment named Grim was used creatively and collaboratively to support focus on form. Pérez-Llantada (2009), based on her research into various ways of digitally-enhanced grammar exploration, emphasizes the value of Bhatia's multi-perspective approach to corpus-informed instruction. She argues that such pedagogy can, among others, increase the students' accuracy and appropriacy of grammar use by helping them to "identify and understand the textual, genre and social aspects of grammar in real contexts of use" (p. 40). The effectiveness of the "real contexts of use" can be reinforced by their multimodality.

A study by Baturay et al. (2010) demonstrated that the use of audio-visual aids to enrich the contextual presentation of grammar has the potential to increase learner satisfaction in the area of learning enjoyment and positive attitudes. Similarly favourable attitudes of participants together with statistically significant gains as regards the interpretation of the semantics of grammar were shown in our previous research (Turula 2011) in a series of experiments in which English grammatical tenses were learned through the exploration of film and TV show material.

Numerous researchers, such as Bloch (2009), Moon and Oh (2018) as well as Crosthwaite et al. (2019) narrow down exploratory focus on form to corpus-based and data-driven (DDL) learning. Bloch (2009) discusses the integration of web-based concordancing into the teaching of vocabulary and grammar, exploring its pedagogical utility in an academic writing class. He claims that while the students had problems understanding the semantic nature of the choices – which, according to the author, indicated the need for some modifications to the programme as well as some preparatory pen-and-paper in-class activities – they generally used the tool quite effectively. The data gathered by Moon and Oh (2018) show improvement in grammar learning and retention in DDL, ascribing it to the method itself, as it facilitates learner efforts to discover and apply rules. Adequate use of corpora is frequently accompanied by student motivation for such learning activities. Based on their analysis of three corpus users' activity logs, Crosthwaite et al. (2019) note distinctive individual corpus engagement by query frequency and function. As the authors point out, the students frequently go beyond course materials to generate unique queries under their own initiative. Such positive learner attitude to DDL is also emphasised in earlier-cited Bloch (2009).

## 2.3. Textual enhancement (TE) in online learning

In their review of research into input enhancement through CALL, Shabani et al. (2017) cite only one study dealing with such an approach: Gascoinage's (2013) investigation of the effects

of incidental input enhancement in computerized L2 environments. However, the utility of the CALL/TE combination is highlighted in a number of later publications. Shabani et al. (2016) prove that new grammatical forms can be effectively learned through technologically-enhanced input (highlighted, bolded, or underlined). Ziegler et al. (2017) point out the effects of automatic visual enhancement of input on L2 learners' development. In turn, Joozdani and Rezvani (2018) investigate online learning of English articles through metalinguistic awareness or textual enhancement to prove that the latter technique is more effective for teaching grammar. Most recently, Kilickaya (2019) looks into the retention of adverb clause reduction as a result of different types of visual signalling (bold type; graphic organisers) and shows the effectiveness of such treatment.

## 2.4. Collaborative (2.0) learning of grammar

Web 2.0, through its potential for the social nature of different actions, including learning actions, paves way for online collaborative focus on form. Literature to-date reports studies into said potential. Kessler (2009) looks at how collaborative, content-focused activities influence the accuracy of the participants' contributions as well as their attitudes to the importance of grammar in the context of collaborative technologies. He reports that sufficient accuracy was achieved in the course of the activity and the students' ability to correct themselves and learn from their own errors and their classmates' increased. Yet, he also highlights the importance of task design and variety, admitting that the participants of the study did not show enough willingness to focus on form. Similar findings are presented in Sauro (2009): corrective feedback offered during task-based interaction via text-chat had limited effectiveness. This may be because, as Kessler notes, students could be less responsive to focus on form "when working in an online context, engaged in a task that they recognized as primarily focused on the creation of meaning" (Kessler 2009, p. 92).

## 2.5. The importance of personal preferences in CAL of grammar

Hwu (2007) argues that taking personal preferences into account is important in computer-assisted grammar instruction. What such differences may amount to is shown in the already-cited study by Crosthwaite et al. (2019). Their data show, among others, inter-/intra-user trends and variation in the use of particular corpus functions and in the syntax of the queries run by various corpus users. Besides, as the authors point out, the subjects they studied varied in the type of knowledge (e.g. domain-specific, language-specific) they accessed.

All in all, digitally-enhanced focus on form has a number of possible implementations

whose effectiveness and power to influence learner attitudes have been shown in studies to-date. However, there seems to be a gap in research into a combination of the various approaches and techniques studied so far. Such an eclectic approach could be particularly effective vis à vis the importance of individual differences, both as regards the learners themselves (Skehan 2003) and the material to be learned (Lewis 1986, Willis 2005). The present paper is an attempt to fill in a research gap into the effectiveness of eclecticism in the design of a computer-assisted grammar course. Such design, used in the study as summarised below, aimed to investigate how new technologies can be used in an eclectic way to enhance the focus on form.

## 3. The study

### 3.1. The context of the computer-enhanced focus-on-form eclective course

The Practical Grammar course is a class typically taught at Polish universities to first-year students of the English Studies programme. A standard class of this type, at least at the university where the present study was conducted, is a 90-minute session combining the teacher's lecture with an extensive grammar drill, both in class and at home.

The design of the Practical Grammar class which provided the context for the present study assumed a different form, taking into account various methods and techniques which belong to the focus-on-form spectrum presented in the literature review section of the paper. The course was taught in the blended format, with the use of the flipped-class model. The students were familiarised with the rules and usage at home (handouts; pull/push activities, teacher-made grammar flashcards) while the in-class time was devoted to a series of diverse activities dealing with the problems studied (passive voice, reported speech, unreal past, modals, conditionals). The in-class activities typically included a Kahoot homework test as well as game-based and fun tasks, such as running dictation, dictogloss, QR-code searches and grammar poetry writing.

Additionally, the course was gamified and the individual badges to be earned in the students' own time required: (i) exploratory and data-driven grammar learning through watching films and TV shows combined with the compilation of a usage corpus dedicated to various structures studied in the course (the Film SWATch badge); (ii) input enhancement – visual and through repetition – based on grammar meme creation, which required integrating popular images with grammar sentences borrowed from the study material (the Meman / Memaid badge); (iii) collaborative learning of grammar in Quizlet, involving team work on the

sets of grammar flashcards (The FishKey Master badge). Moreover, the course provided ample opportunities for quiz-based automatization of the structures learned, rewarded with two more badges (the Quiz Ninja badge and the Top Kahooter badge).

To finish with, the pull/push techniques (mentioned earlier in this section), used for the explicit teaching of the course material, were based on the following scheme. The course material for each grammar problem was divided into grammar pills (=manageable, short packages of rules and examples of usage). A glossary was created in the online course containing entries equal to said grammar pills. A function was switched on making a random glossary entry display to the user on each sign-in (the pull). Alongside the glossary, a discussion forum was started on which a grammar pill was published every day. With the notification function on, each student received his/her daily grammar pill by email (the push). Occasionally, as an exception rather than a rule, the lecture+drill mode was used in class.

The subjects of the study were first-year students of the English Studies programme in the academic years 2016/2017 and 2017/2018. During the first part of the study, the experimental group consisted of 14 students (N1e=14) within the population of 113 (N1c=113). A year later, the treatment was offered to a group of 13 students (N2e=13) drawn from the population of 78 (N2c=78).

## 3.2. Aims, design and procedure

The main aim of the study was to determine whether the teaching model described above – with its gamified design in place of a lecture+drill pedagogy, matched with the different focus on form activities gamified – was effective in the sense that it led to the improvement of the students' performance on the final grammar exam. In other words, the desirable outcome was determining that there is no significant difference between the population educated based on the standard model and the sample taught in the innovative way. For the sake of the study the following hypothesis was proposed:

> *In spite of variance in the pedagogical treatment, there will be no statistically significant differences between the sample and the population as regards final exam results.*

Additionally, what was of interest of the study, were the various effects of the design implemented. In view of this aim, the following research questions were asked:

> *RQ1: What was the students' attitude to the innovation, as such and its individual elements?*

> *RQ2: How effective was the design vis à vis the various grammar structures*

*learned?*

In order to verify the hypothesis and answer the two questions, the treatment was implemented twice, in the spring term of the academic years 2016/2017 and 2017/2018. Each time one group – out of 8 (2016/2017) or 6 (2017/2018); purposefully sampled – was subject to the treatment described. For each group the Practical Grammar class was a continuation of a similar class taught in the winter term of the same academic year. The spring-term course consisted of 30 teaching hours, 28 f-2-f and 2 online. The groups which underwent the treatment were additionally offered access to an online course containing the technology-enhanced activities described above.

Since an innovative approach was implemented in the groups under investigation, the experimental study design was chosen. In this design, the winter term exam (in the English tenses) served as a pre-test and the final exam – as a post-test. Since the pre-test covered different grammar problems than the post-test (the English tenses as opposed to conditionals, modals, passive voice and reported speech), it is treated here only as a check of the susceptibility of both samples to the lecture+drill method of teaching in terms of its relative effectiveness for the two experimental groups in the term preceding the treatment.

In order to verify the hypothesis – the lack of statistically significant difference between both samples and their populations as regards final exam results – z-scores were calculated with the significance level 0.05. The calculation was based on the data obtained for the whole populations in January 2017 and 2018 (first-term grammar final, pre-test) and June 2017 and 2018 (end-of-year grammar finals, post-test). As regards the two research questions, scores in individual grammar tasks were examined. Additionally, a survey was implemented in the experimental groups at the end of the course (in June 2017 and June 2018), to ask about the students satisfaction with the treatment and their attitudes to it.

## 3.3. Results and findings

The pre-tests for both experimental groups (Table 1) show that there is no meaningful difference between these groups and their populations. Both N1e and N2e are slightly better than their population but in a statistically insignificant way (cf. the p values) as regards their knowledge of the English tenses acquired in the lecture+drill winter class.

Table 1. The experimental groups and their populations on the pre-test

|      | z score | p value |
| ---- | ------- | ------- |
| N1e  | 1.16    | 0.25    |
| N2e  | 0.42    | 0.67    |

When it comes to the post-test, the overall score of the first experimental group is minimally higher (Table 2) and of the second one minimally lower (Table 3) than that of the population,. However, the overall differences (total exam score) are not statistically significant.

Table 2. Group N1e, results on the post-test

|  | Conditionals | Modals | Reported speech | Passive voice | Total score |
|---|---|---|---|---|---|
| z score | **2.31** | 0.53 | -0.7 | 0.9 | 1.01 |
| p value | **0.02** | 0.6 | 0.46 | 0.36 | 0.31 |

Table 3. Group N2e, results on the post-test

|  | Conditionals | Modals | Reported speech | Passive voice | Total score |
|---|---|---|---|---|---|
| z score | -2 | 1.17 | **-2** | **-2.5** | -1.15 |
| p value | 0.05 | 0.23 | **0.048** | **0.01** | 0.25 |

What differs in a statistically meaningful way are some of the individual scores pertaining to the grammar problems covered in the course (values bolded in Tables 2 and 3). The first experimental group scored better than its population on the section of the test devoted to the conditionals. The second experimental group was significantly weaker than the population in reported speech and passive voice.

The results of the survey carried out in both experimental groups contain two different kinds of data: the students' satisfaction with individual activities implemented in the course (Table 4), rated on a scale of 1 ("not satisfied at all") – 6 ("extremely satisfied") plus 0 for "didn't do"; and students' answers as regards their highest and lowest ratings with reasons (Table 5).

When it comes to the feeling of satisfaction, both groups agree in their evaluation of a number of activities, the most popular (scores above average, in bold) being the Kahoot homework check, paper grammar flashcards used in class, game-based activities and the traditional lecture+drill approach. Neither of the groups as a whole (scores below average) showed satisfaction with activities such as the pull technique, meme making, grammar exploration or collaborative grammar learning in Quizlet. The push technique was appreciated

by the second and not the first experimental group. The teacher-made Quizlet flashcards were seen as satisfactory by N1e but not by N2e.

Table 4. Groups $N_{1e}$ and $N_{2e}$, survey results

| Class activities | $N_{1e}$ (mean) | $N_{1e}$ (SD) | $N_{2e}$ (mean) | $N_{2e}$ (SD) |
|---|---|---|---|---|
| Kahoot homework check | **4.53** | 1.4 | **5** | 1.1 |
| Random glossary entry (pull) | 2.67 | *2.2* | 2.77 | *2.04* |
| Rule emailing (push) | 2.8 | *2.1* | **3.61** | *1.94* |
| Meme making | 1.27 | *2.1* | 0.61 | *1.6* |
| Grammar exploration | 1.6 | *2.2* | 1.23 | *2.0* |
| Online quizzes | 2.6 | *2.4* | **3.15** | *2.4* |
| Quizlet flashcards – teacher-made | **4.4** | 1.2 | 2.6 | *3* |
| Quizlet flashcards – student-made | 2.13 | *2.6* | 1.23 | *2.1* |
| Grammar flashcards used in class | **4.27** | 1.5 | **5.23** | 0.7 |
| Games in class | **3.53** | 1.3 | **4.6** | 1.4 |
| Lecture+drill | **4.53** | 1.7 | **5.30** | 0.9 |

At the same time it seems important to note the relatively high SD scores (Table 4, italicised) for some of the activities. They show that there were noteworthy individual differences between how individuals in both experimental groups evaluated such activities as push/pull techniques, meme making, grammar exploration, online quizzing and collaborative learning. Apparently, each sample contains users who are both very satisfied with as well as disappointed with / sceptical of said activities.

When asked what they evaluated the highest and the lowest, the students listed 0-3 activities, giving reasons for their choice (Table 5). The first experimental group favoured the traditional mode (lecture+drill; 6 votes), Kahoot homework check and teacher-made Quizlet flashcards (4 votes). The second experimental group chose paper grammar flashcards (8), Kahoot homework check (5) and the in-class game activities (4). The main reason the respondents from both groups offered was that the techniques coincided with their preferred learning strategies (10 and 11, respectively). Three respondents from N2e appreciated the fun factor.

Table 5. Students' evaluation of activities; highest and lowest scores with reasons

| | Highest scores | Reasons | Lowest scores | Reasons |
|---|---|---|---|---|
| $N_{1e}$ | lecture+drill (6) | my way of learning (10) | games (3) | not my way of learning (8) |
| | Kahoot (4) | reliability (1) | Kahoot (3) | unreliable (4) |
| | T Quizlet (4) | fun (1) | exploration (2) | bad time/effect ratio (1) |
| | flashcards (2) | learning new useful tool | quizzes (2) | no fun (1) |
| | pull (1) | (1) | flashcards (2) | |
| $N_{2e}$ | flashcards (8) | my way of learning (11) | push (5) | not my way of learning (7) |

| Kahoot (5) | fun (3) | pull (3) | unreliable (4) |
|---|---|---|---|
| games (4) | | games (3) | not clear (1) |
| push (3) | | lecture+drill (1) | |
| lecture+drill (2) | | | |
| quizzes (2) | | | |

There is far less agreement as to what the least favourite activities were, in either of the groups. The choices are scattered, with the dislike of the push technique being the most consistent in the second experimental group. Both groups are more in accord as for the reason of their low satisfaction: as in the case of favourite activities, the learning style factor is the most important (8 and 7, respectively), followed by apprehension in the face of novelty (unreliable, 4 votes in each group).

## 4. Discussion

In the light of the data, the hypothesis stating that in spite of the various course designs there will be no significant difference between the sample and the population as regards the final exam results can be sustained for the overall exam score but not for some of the scores related to various grammar problems covered in the course. This leads to a number of observations.

First of all, it seems legitimate to conclude that the eclectic course design is a worthwhile alternative to the standard teaching. The flipped-class, gamified model, with game- based, fun-focused in-class activities supplemented with various forms of form-focused homework proved to be equally effective examwise.

At the same time, however, it is interesting to note a number of factors which cannot be ignored in the pursue of the answers to the two research questions.

*RQ1: What was the students' attitude to the innovation, as such and its individual elements?*
Looking at the results we can see that the students themselves actually are in two minds about the innovation. While they appreciate a number of the in-class activities (Table 4) claiming they go well with their own way of learning (Table 5), they also value highly the traditional approach for a similar reason (Tables 4 and 5). Considering the fact that the standard treatment is commonly regarded as very demotivating, not to mention that its effectiveness is questionable in the light of research into the form-focused instruction (cf. Turula 2011 for an overview), there may be several reasons for the students' preference towards it. To begin with, the satisfaction survey was administered before the exam, and the students could still feel apprehensive (the quite popular unreliable vote; Table 5) towards the solutions which differed from the mainstream course of pedagogical action and had yet to be exam-verified. Secondly,

the popularity of the standard may show that we are dealing with transfer of training here (a considerable number of my way of learning answers; Table 5): the students choose the ways of learning which they have long been familiar with.

It is important to admit that the above-mentioned reasons for the students' choice and high ranking of the lecture+drill mode – their pre-exam anxiety and the transfer of training – are purely speculative. What is a fact, though, is the popularity of the standard itself. This, in combination with the fact that a large proportion of both experimental groups rejected many aspects of the treatment: grammar exploration, input enhancement, the push technique (top least favourite for N2e; Table 5) may be surprising in the digital native generation, whatever the reason for the lack of satisfaction. It is also pedagogically disquieting, considering the effectiveness of such techniques proved by the numerous studies cited above.

The explanation of the lack of appreciation for the array of technology-enhanced techniques may be the one proposed by Reinders and Hubbard, who write (2013: 360):

> Although technology undoubtedly does support learners in a myriad of ways, it is also true that without adequate preparation, practice, feedback and support many learners are unable to make effective use of technology's affordances and indeed may suffer from using technology inadequately.

The fact that in the experiment described the exploratory learning of grammar as well as input enhancement and flooding were to be carried out independently of the teacher might have resulted in the activities lacking "adequate … feedback and support", also in the form of an explicit rationale for the innovations adopted. This shows that in the implementation of various pedagogical modes, the cognitive and affective what in any educational agenda should be supported with the why: the metacognitive training of the participants clarifying the potential benefits of the treatment.

Finally, a word needs to be said about individual differences vis à vis different teaching modes. While the first experimental group seem to have benefited from the treatment – scoring better than the population on all grammar problems but the passive voice (Table 2) – the other group, even though generally successful examwise, was bested by those exposed to the lecture+drill standard in almost every area, the disadvantage being statistically significant in the case of passive voice and reported speech. This may be indicative of two different factors. Firstly, the first experimental group could have been more susceptible to the treatment. The interpretation – not sought in the course of the study and thus again purely speculative – may be that the N1e sample was more flexible, open to innovation and less prone to pre-exam anxiety. Secondly, as demonstrated by the SD scores, individual intra-group differences are an

important variable. Some activities were highly evaluated by some students and disfavoured by others. This, seen in the context of the overall success of the innovative design, shows that the eclectic composition of the course was potentially beneficial by allowing its different participants to find various way which coincided with their learning preferences and styles – an important factor, as shown by Hwu (2007) and Crosthwaite et al. (2019).

*RQ2: How effective was the design vis à vis the various grammar structures learned?*

In addition to learner individual differences, the data show that it is possibly the type of grammar structure that matters as regards the various effects of the treatment studied. The fact that passive voice and, especially, reported speech proved to be the weakest points in the experimental course may indicate that the innovation implemented could be better suited for the grammars of pattern (conditionals) and basic semantic distinctions (modals) than it is for the grammar of rules (reported speech and passive voice.

## 5. Conclusions

The results of the study show that while the experimental treatment can be seen as effective examwise, various factors, such as learner individual differences and the specificity of the material taught need to be taken into account. Pedagogical implications – other than the acknowledgement that the experimental treatment may be a viable alternative to the lecture+drill class format – boil down to the recognition of two important facts: that effective focus on form requires a spectrum of activities; and that in language learning raising metacognitive awareness of the treatment employed is a necessary addition to the treatment itself.

**Ethical statement**

The study was carried out with academic ethics in force in Poland.

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