

Same old, same old? Breaking the traditional teaching mold in the age of Covid-19

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1 Introduction and paper rationale

For teachers and learners worldwide, the Covid-19 pandemic has meant an overnight shift to a fully online learning environment. This unprecedented situation presents its unique set of challenges, including skill-building from a distance, student well-being and, most importantly for this paper, maintaining student engagement and motivation (Dörnyei 2014) in a context of social isolation: “the principal factors of successful learning are student motivation, self-efficacy, attention, and engagement. With online learning, all these aspects are at risk” (Jandrić et al. 2020). Online pedagogy thus needs to maintain, and preferably even enhance, the principal factors of successful learning listed above. The current paper takes stock of a number of pedagogical activities which were implemented in the context of Dutch and English linguistics and proficiency courses at the Université Saint-Louis (Brussels, Belgium)¹ during the 2020-2021 lockdown period, in which the lecturers opted for a deliberate move away from traditional teacher-led approaches to more active learning methods. The paper pays particular attention to the construct of student engagement, namely “how involved or interested students appear to be in their learning and how connected they are to their classes, their institutions, and each other” (Axelson & Flick 2010: 38). Learning cannot optimally take place without engagement (Shulman 2002) which has been found to positively relate to high grades, student satisfaction, and persistence (Chen, Gonyea & Kuh 2008). Each of these components was very much at risk during lockdown. The paper critically reflects on the ways in which the pedagogy employed in distance teaching during Covid-19 succeeded in maintaining student engagement in the courses.

This contribution does not claim to be a presentation of best practices or even that the activities described were optimally implemented, but is rather an account of pedagogical decisions which yielded particularly favorable outcomes in a fully online mode. Arguably, the courses reflected on in this contribution fall under the category of ‘emergency remote teaching’ which Hodges et al. (2020) distinguish from ‘online learning’ proper. Emergency remote teaching is described as being hurriedly put together as a response to a crisis and pandemic, while online learning per se is seen as the result of careful instructional design and prior planning. Emergency teaching has admittedly given rise to questionable practices that can lead to student disengagement (e.g. uploading long lecture recordings that learners are expected to go through autonomously). However, as the pandemic and lockdown continued, many educators worldwide became increasingly aware of the disengaging nature of transposing traditional teaching to the online medium and started planning and designing online classes more carefully. As the sense of emergency started to dwindle and online teaching slowly became the new norm, awareness of what constitutes efficient remote practices started to increase, which led to more engaging choices in course design.

¹ These courses were given in the Germanic Languages Department of the University, to students specializing in Dutch and English.

In what follows we present our team efforts to optimize emergency online learning in Dutch and English language courses (linguistics and proficiency). The methods we decided to implement during lockdown are inquiry-based learning (section 3), online collaborative learning (section 4), and game-based learning (gamification) (section 5). The common aim pursued by the three approaches was mainly to encourage student engagement to ensure learning and skill development continued to take place (cf. *supra*).

2 Departing from traditional forms of teaching

Maintaining student engagement in online teaching during the Covid-19 lockdown required a move away from more traditional forms of teaching. Prototypically, traditional teaching (or lecturing) at university can be understood as the activity of trying to convey knowledge in a one-way communication mode with a teacher standing in front of a group of students in a lecture hall (Poirier 2017). Although different types of lecturing exist, one example involves reading PowerPoint slides to an audience without encouraging much concrete input/thinking from the learners themselves (i.e., active learning). This passive approach to teaching “views the learner as ‘an empty vessel’ to be filled with knowledge” (McLeod 2019) and is generally opposed to constructivism which “states that learners construct meaning only through active engagement with the world” (McLeod 2019).

Pinhorn (2020) identifies four motivational strategies that help increase the online learning experience and learners’ sense of engagement, namely (1) challenge (students feel that they are learning something new), (2) control (students feel that they are capable of carrying out the required task), (3) curiosity (promoting discovery), and (4) fantasy (incorporating games into learning). The pedagogical approaches presented in this paper ((individual) inquiry-based learning, online collaborative learning, and game-based learning (gamification)) paid special attention to these four components, while also identifying two additional concepts that are essential towards increasing student online engagement, namely the nurturing role of the teacher, and the creation of online interaction.

To nurture engagement, the teacher must make the task meaningful, boost the students’ self-confidence when morale is low, and create a sense of belonging, all the while steering the output in the right direction. Laurillard (2012: 33) summarizes the key role played by the teachers in online teaching: “if they foster a sense of self-efficacy, encourage a balance of orientations to study, and use educational practices that engage, nurture, and challenge their students, their students can develop the confidence to become effective learners”. She further notes that learners are more likely to engage in learning activities that lead to higher-level outcomes if the teaching requires collaboration, critical thinking, and concrete output (Laurillard 2012: 42). Arguably, the nurturing role of the teacher should be encouraged at all times and in all teaching contexts. Paradoxically, however, the physical absence imposed by the pandemic made some teachers acutely aware of the necessity to boost their online presence and to feel close at a distance (Docq 2020b).

Creating interaction in an online teaching environment is an additional challenge that teachers were suddenly confronted with in lockdown. Bernard et al. (2009) identify three different types of interaction, namely student-content, student-student, and student-instructor interaction. They claim that the presence of each type of interaction, when meaningfully integrated, increases the learning outcomes and engagement (see also Depover & Quintin 2011). The methods reviewed in this chapter deliberately included interaction-promoting strategies to help sustain student engagement and foster deep learning.

3 Inquiry-based learning

3.1 Defining inquiry-based learning

Inquiry-based learning (IBL) is a concept from active pedagogy which “aspires to engage students in an authentic discovery process” (Pedaste et al. 2015: 48). Students direct their own investigative activity by completing all stages of scientific investigation, such as identifying problems, formulating research questions, collecting and analyzing data, testing hypotheses, synthesizing, and drawing conclusions (Keselman 2003, Mäeots, Pedaste & Sarapuu 2008, Fielding 2012, Pedaste et al. 2015). As such, this method “provides a richer, more scientifically grounded experience than the conventional focus on textbooks” (Bransford, Brown & Cocking 1999: 172). As reported in Pedaste et al. (2015), several quantitative studies have shown that inquiry teaching results in more effective learning, compared to other forms of (traditional) instruction, such as direct instruction or unassisted discovery. Moreover, according to Keselman (2003:899), IBL-activities “foster [students’] natural curiosity”, and Bayram et al. (2013) found evidence that these have a positive effect on student motivation and engagement (cf. also Sungur & Tekkaya 2006). Johnson & Cuevas (2016) argue that because IBL is “designed to pursue student interests and encourage students to cooperate in self-directed learning, it follows that it would increase student motivation”. One of the many examples referred to by Johnson & Cuevas (2016) to support their claim is an experiment set up by Sungur & Tekkaya (2006), who found that students in an IBL setting were more likely to participate in class activities, for challenge, curiosity, and mastery (compared to the students in a traditional setting): the students in the IBL setting valued the student-centered approach which increased their motivation levels.

Importantly however, the remarkable educational potential of IBL “cannot be achieved merely by placing the students in the midst of a complex scientific domain for free-reign investigation” (Keselman 2003: 899), i.e., without additional instructional support. Barron & Carling-Hammond (2010: 211-212) state that the teacher plays a critical role, mostly because IBL-activities “require extensive scaffolding and constant assessment and redirection as they unfold”². As such, teachers need to stimulate and encourage the students (keeping them on task and productive, and making sure they do not lose interest) and guide them in all the stages of their investigative efforts (including time management and organization, such as breaking the task of discovery into a sequence of manageable steps) (cf. also Krajcik et al. 1998, Swaak, van Joolingen & de Jong 1998, Fielding 2012). Keselman (2003) and Pedaste et al. (2015) also highlight the importance of student-teacher interaction in the form of frequent discussion and clarification sessions. Moreover, the teacher can foster the students’ metalevel cognitive development by asking them to reflect on and explicitly justify the stages of their own work (e.g. Lin & Lehman 1999). The idea behind this approach is to help students develop, monitor, and revise their own investigative strategies (Brown, Campione & Day 1981).

3.2 Implementing IBL in the context of distance learning

Docq (2020a) refers to student-content interaction as an essential facet in the pedagogical design of online learning. Given that most authors agree that the learner’s *cognitive activity* is a central factor of learning, the teacher must try to stimulate active behavior as frequently as possible. In the context of distance learning because of Covid-19, educators needed to ask themselves questions such as “how can I make this student-content interaction more dynamic in an online environment?” or “how do I make

² Instructional scaffolding is the support an educator has to provide for the students to be able to “meaningfully participate in and gain skill at a task that they would be unable to complete unaided” (Belland 2014).

my students intellectually active and engaged with / interested in the course materials at a distance?”. We considered IBL to provide a promising answer to these questions (cf. also Rotgans & Schmidt (2011) on cognitive engagement in the IBL classroom). Indeed, according to Pinhorn (2020), inquiry-based learning lends itself to a natural shift to an online learning option, given that “it shifts the focus from the teacher as a provider of content to a facilitator of the process of learning” and that several online means are suitable to build relationships and rapport. Therefore, we relied on IBL in the context of a second-year linguistics course at USL-B in Spring 2021. Table 1 outlines the different stages in the set-up of the course:

Stages	Description
Stage 1 [theoretical]: introductory part	This part addressed some topics specific to the syntax of Dutch, designed to make sure that the students acquired the necessary knowledge to implement IBL-activities (Hattie 2016, cf. also section 3.4). From the outset, the theoretical discussion was accompanied by numerous exercises, making even these introductory lectures quite interactive.
Stage 2 [theoretical]: methodology of research in the field of Dutch syntax	This part focused on: (1) research design (research questions, hypotheses, methods, ...), (2) data collection (where to find trustworthy sources, how to conduct surveys, how to design questionnaires, ...), (3) data processing and description, (4) data analysis and interpretation, (5) conclusion and evaluation. The course also contained information and exercises on how to write (structure, organize, ...) a research paper, and on referencing and writing a bibliography.
Stage 3 [concrete/practical]: study of scientific articles	The students studied scientific articles and prepared accompanying assignments, which were then discussed in class. In this flipped classroom model, attending and actively participating in these discussion sessions was of the utmost importance.
Stage 4 [concrete/practical]: practice of linguistic research	Each student was asked to develop an analysis of a Dutch syntactic phenomenon (or make a cross-linguistic comparison). Students could choose the subject of their research project, either from a list of suggested topics or by making their own suggestions. From then on, the course took the form of individual weekly tutorials of at least 30 minutes (via the platform <i>Microsoft Teams</i>). These meetings were used to conduct question-storming sessions, to have students describe their progress and results (with the teacher giving feedback, rich enough to enable the students to improve their process), and to address worries and insecurities.
Stage 5 [concrete/practical]: output	At the end of the course, the students handed in their research paper and gave a scientific presentation, after which the teacher asked detailed questions.

Table 1: set-up of IBL-based linguistics course (2nd year of bachelor) at USL-B

3.3 How did IBL maintain student engagement?

One factor certainly enhancing motivation was the fact that the students could choose their own research based on their personal interests. For example, one student worked on the difficulties encountered by French learners with *voorzetselvoorwerpen* in Dutch (prepositional objects, i.e. constituents starting

with a preposition that forms a fixed combination with a verb, such as *twijfelen aan* ‘have doubts about’, *wachten op* ‘wait on/for’), and another student made a cross-linguistic comparison (Dutch – Portuguese) of unaccusative verbs (i.e. an intransitive verb whose grammatical subject is not a semantic agent, such as *fall* or *break*).

Moreover, students were expected to take initiative, work independently, and take charge of their own small research project. As such, IBL “provides students with an opportunity to learn to take responsibility for their own learning” (Pinhorn 2020). Being responsible also meant that students could not miss their weekly appointment with the teacher, and that they *had* to do the planned work and come prepared to these meetings, if they wanted their project to be successful in the end.

Furthermore, through the weekly discussion sessions, a supportive environment was created: with extensive scaffolding, the teacher guided the students - stimulating, encouraging, and helping them forward in their research project. The educator, who in this setting functioned more as a ‘coach’ than a ‘teacher’, provided feedback and made sure that the students were guided throughout their project, and kept on track. During the weekly sessions, questions were addressed, concrete problems were discussed, and specific objectives were set for the next meeting the following week. To give but one example: one student wanted to conduct a survey (with native speakers of French learning Dutch) and set up an online questionnaire. Some of the sessions were devoted to the design of the questionnaire (which questions to ask?), others to the description and analysis of the collected data, and others (towards the end of the term) to drawing conclusions and the best ways to present the findings on paper. As stressed by e.g. Keselman (2003) and Barron & Carling-Hammond (2010), the positive effects of IBL can only be achieved if the students are properly guided at all stages of their research. It is nearly impossible to maintain student engagement in an individual research project at this level (i.e., second bachelor year), especially in an online teaching setting, without the nurturing presence and guidance of the educator.

3.4 Critical assessment

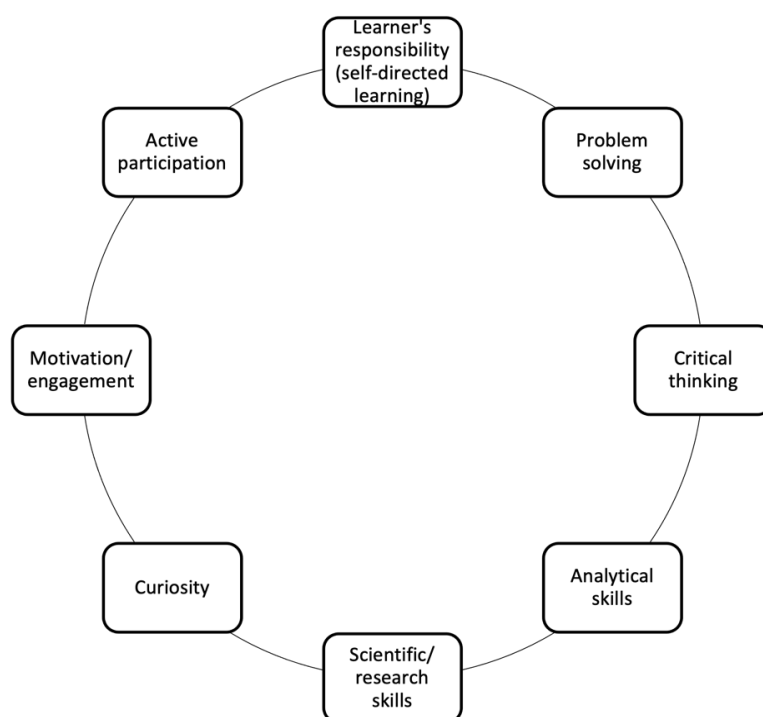


Figure 1: Positive outcomes of IBL

In an IBL-setting, students *learn by doing*. Essentially, IBL emphasizes active participation and encourages learners' responsibility for discovering new knowledge and developing skills such as critical thinking and problem-solving (de Jong & van Joolingen 1998). IBL-activities boost the students scientific/research skills and their analytical skills. It is clear, moreover, that perseverance and personal responsibility are of the utmost importance to bring an IBL-project to a successful conclusion.

There is an important caveat, however. Activities like these must be implemented at the right learning stage, after the students have acquired the necessary theoretical background and the 'surface-level' knowledge that is necessary for higher level activities: students first have to receive explicit instruction to gain skills and concepts necessary for IBL to take place (Rotgans & Schmidt 2010, cf. also Hattie 2016). It is useless to throw them in at the deep end of the pool if they haven't been taught how to swim. Moreover, an individual research project at the level of second-year bachelor students can only be pulled off if the educator is there to guide and help the students each step of the way (ensuring they spend their time productively), including listening to and addressing their worries and insecurities – which were arguably even more pronounced during their isolation in Covid-19-times. As such, it should be clear that this project, with high-intensity weekly sessions of thirty minutes per student, was probably successful because it could be implemented in a group with a small number of students. With very large student groups, it is difficult to imagine a similar set-up without the educator becoming overloaded. Furthermore, we should look with a critical eye at the way these individual projects were assessed: at the end of the term, only the 'end products' (paper and scientific presentation) of the project were graded. It is conceivable, though, and maybe even logical, to also take into account the student's 'scientific process' in the assessment criteria.

Lastly, research (e.g. Kuhn et al. 1995, Keselman 2003) has shown that IBL works best when repeated, i.e. when implemented across domains and subject areas, allowing students sufficient opportunity to develop their skills and competences, and to critically reflect on their different performances. As such, it is strongly advisable that these methods be applied frequently and in different courses to optimize learning. As will be made clear in the next section, an online collaborative learning project carried out at USL-B in Spring 2021 also involved an important IBL-aspect.

4 Online collaborative learning (OCL)

4.1 Defining OCL

The second method considered in this paper, namely online collaborative learning (OCL) (Harasim 2012), also integrates inquiry-based learning but with a strong focus on learner collaboration (student-student interaction) whereby students are engaged in the co-creation of a shared product. To qualify as collaborative learning, the learning environment must include the following components (Table 2, adapted from Laal 2013):

	OCL features	Brief explanation
1	Clearly perceived positive interdependence	The learners are all co-dependent in the realization of the task and must work together towards a common goal. Each student develops a sense of personal accountability and responsibility.

2	Inquiry-based learning	Learners are engaged in active learning which involves creating new knowledge, discovering methods and finding interpretations for themselves, with the necessary teacher support (cf. section 3 above).
3	Considerable social interaction	Members must clearly communicate decisions, questions and outcomes with the rest of the group.
4	Development of soft social skills	OCL encourages values and skills such as trust-building, decision making, problem solving and conflict management.
5	Nurturing role of the teacher	The teacher must develop the OCL task design per se but also create a positive learning environment and steadily guide the learners in the construction of the shared output.
6	Shared output	OCL is based on the active co-creation of a shared output which makes the learning happen.

Table 2: Collaborative learning: defining features

4.2 Implementing OCL: the Coronavirus project

In the Spring semester of 2021, the USL-B second-year linguistics students (a small group of seven students) worked on an OCL project which involved characterizing the tone used in the British press to refer to the Coronavirus crisis. The students were asked to focus specifically on headlines and compare:

- a tabloid (the *Daily Mail*) and a quality newspaper (the *Independent*) and
- two different time periods, namely the first Coronavirus wave (March-April 2020) and a later wave (January-February 2021).

The aim was to discover whether there were any marked differences in the linguistic characterization of the crisis across newspaper genres and time. The group was informed that they would be presenting their findings at a linguistic conference organized by the SeSLa (*Séminaire des Sciences du Langage*)³ on 28 April 2021. The topic of the conference was specifically about Coronavirus discourse. Both national and international linguistic experts were included in the programme, which led to setting the bar quite high for the students who had never yet actively participated in an academic conference. This challenge contributed to creating a strong sense of engagement in the group.

Table 3 outlines the four main work packages (WP) that constituted the building blocks of the OCL project about Coronavirus headlines.

WPs	Description of WP
WP1: Data collection	Each student was put in charge of collecting c. 85 headlines in the selected newspapers and was informed about which newspaper/coronavirus wave they were responsible for. The students thus all equally contributed to building the Coronavirus headlines database which took the form of a shared Excel sheet on OneDrive. This resulted in a total of 608 coronavirus headlines, balanced across

³ The SeSLa is the linguistic research group at the Université Saint-Louis. It is co-directed by Professors Sabine De Knop, Anne Dister and Dominique Longrée: <https://www.sesla.be/>.

	newspaper type (quality/tabloid) and time (first and later waves), e.g. <i>Coronavirus: UK fears of undetected cases grow as 13 more test positive</i> (Independent, wave1) or <i>Virus panic buying prompts toilet roll rationing Down Under</i> (Daily Mail, wave1).
WP2: Sentiment analysis	To qualify the overall tone used to refer to the Coronavirus crisis, the 608 headlines were submitted to sentiment analysis, using the MonkeyLearn ⁴ online tool which classified each title as ‘positive’, ‘neutral’ or ‘negative’. Each student was responsible for (1) carrying out the sentiment analysis on c. 85 randomly attributed headlines and (2) checking whether the automatic tool had performed accurately (e.g. were the headlines identified as ‘positive’ indeed positive?).
WP3: Pragma-linguistic analysis	Each headline was classified according to: 1. speech act type (warning, blaming, reassuring, etc.), 2. topic (e.g. impact of covid on finances, role of the government, vaccination, new variants, etc.) 3. the presence of emotionally-loaded lexicon (e.g. <i>deaths, failings, devastating, fear</i>, etc.) Individual students were in charge of analyzing a randomly attributed set of c.85 headlines for each of the three features. This qualitative analysis work was spread over several weeks to devote sufficient time to each of the three components (speech acts, topic analysis, lexicon).
WP4: Shared output	The final step was to present the research questions, methods and results in the form of a scientific presentation to be delivered at the SeSLa conference. The students were divided up into pairs and put in charge of preparing homogeneous PowerPoint slides for each of the given steps: 1. Research questions/ data collection 2. Sentiment analysis results 3. Pragma-linguistic analysis results 4. Critical assessment of the project: what did we learn and what skills did we develop?

Table 3: Coronavirus project WPs

4.3 How did the OCL project maintain student engagement?

The coronavirus project included each of the OCL components listed in Table 2. Possibly the main feature which enhanced student engagement was the ubiquitous presence of positive interdependence in each of the WPs. The students were each in charge of quite a substantial number of weekly analyses upon which the overall success of the project depended. There was thus no question of missing lectures or not doing the work as the whole group would then have to bear the consequences of this. In addition to positive interdependence, the project involved students in an inquiry-based learning process (see section 3 above) where they actively learnt by doing in “an authentic scientific discovery process” (Pedaste et al. 2015: 48). They experienced first-hand the trials and tribulations of data collection, the messiness and ambiguity of data annotation and classification, the need to make decisions, draw conclusions and how to present findings in clear language to an expert audience.

⁴ <https://monkeylearn.com/sentiment-analysis-online>

To give but one example out of many, the group had learnt in a previous methodology course that one should not blindly trust automatic linguistic tools. The project helped truly internalize this point as the students went through every automatic result generated by the sentiment analysis tool and realized that corrections were sometimes necessary. For example, *Plasma from coronavirus survivors found to help severely ill patients* (Independent, wave1) was automatically classified as a negative headline but the group agreed it was in fact a positive message. This step also made the learners aware of the challenges involved in using linguistic taxonomies and making classification decisions as quite a few headlines were ‘somewhere’ between two tone categories, e.g. *NHS plans to deploy ‘Dad’s Army’ of retired doctors if Covid-19 spreads* (Independent, wave1) can be seen as both neutral and positive.

The nurturing role of the teacher was absolutely essential in maintaining student engagement in the project. To keep the students firmly on track and make them feel actively supported, we changed the strict two-hour a week initial course schedule and met online twice a week for shorter periods of time, which boosted teacher presence and guidance from a distance. During these work meetings, the students and teacher discussed debatable cases, drew conclusions at the end of each WP, and set the objectives for the next meeting. The teacher very much slipped into a facilitating/coaching role which involved digitally ‘taking the students by the hand’ to co-construct the final product and remind them of the bigger picture goals for the SeSLa conference when they got lost in detail. This ensured that students felt guided throughout and thus avoided disengagement.

In terms of social interaction and social skills development, the project led to unexpected outcomes. Students who tended to be weaker (and hence perhaps more disengaged) in a traditional teaching context truly revealed their potential in this project: their comments and suggestions were pertinent; they started taking initiatives; their engagement and enjoyment was palpable. Their confidence grew as time progressed, and these students were ultimately selected to orally present the project during the conference. On the other hand, students who tended to be more at ease in a traditional mode, communicated that they had initially felt out of their comfort zone but had experienced a steep learning curve with the OCL method. The following testimony by a student who participated in the project expresses this clearly:

I truly enjoyed the coronospeak project we carried out as a group. To me particularly, it was challenging to leave my comfort zone (that is, listening to lectures and reproducing their content at the exam) to start such a project. It turned out to be wonderful group work, each student bringing their own strengths into the project. As is often the case, challenging experiences turn out to be the most interesting ones and I am very proud of the work we have achieved as a group and individually. The coronaspeak project enabled us to discover an area of linguistics (sentiment analysis and qualitative pragma-linguistic analysis) and work on a highly topical issue affecting all of us: the unprecedented Covid-19 pandemic. To finish this little note, I would like to thank our teacher and all my fellow students with whom I had the honour of working with and the SESLA team who listened to us with so much interest and kindness.

4.4 Critical assessment

Figure 2 is a summary of the main skills that the students trained during the OCL experience:

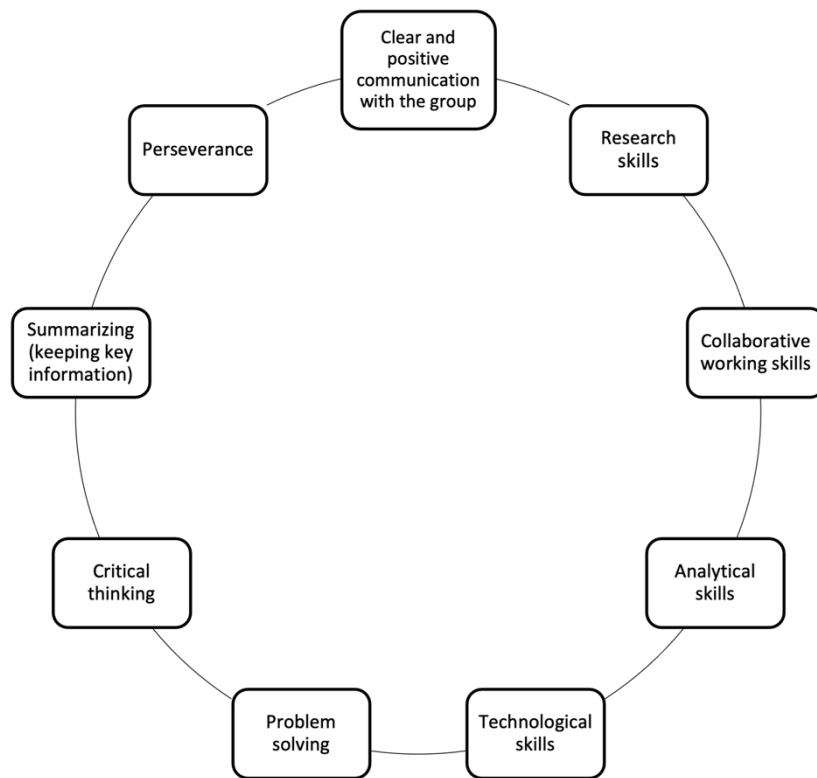


Figure 2: Skills development in Coronavirus project

Overall, the OCL project very much safeguarded, even enhanced, student engagement, including in ways that were unforeseen at the start (e.g. the ‘weaker’ students taking the lead). A point which we admittedly slightly lost sight of during the project is that of assessment. Students are usually given an overall score for their work in English linguistics at the end of the academic year, score which is typically calculated on the basis of a written exam. The OCL project included no written exam, making it challenging to give a precise grade to each student. This is perhaps a point that teachers who decide to include an OCL component in their courses may wish to consider more carefully by developing an assessment grid with clear criteria (e.g. did the student do all the required linguistic analyses; did they communicate clearly with the rest of the group; did they make suggestions when problem solving; did they show initiative, etc.). These criteria should be transparently communicated to the students at the start of the project.

5 Gamification

5.1 Background

Gamification is the principle of applying game elements and game design techniques in non-game contexts and using them for other (non-entertainment) purposes (Deterding et al. 2011, Werbach & Hunter 2012). As reported by Nieto-Escamez & Roldán-Tapia (2021: 2), Covid-19 and distance education require educators to “work to find ways of increasing students’ motivation and engagement” (next to trying to maximize their knowledge acquisition). Gamification has attracted much attention as a means of maintaining student engagement. It has been argued in different contexts (business, physical workout, education, ...), that gamification is an effective instrument not only to improve student

engagement (Wang, Øfsdahl & Mørch-Storstein 2007, Dellos 2015), learning (Dichev & Dicheva 2017, Majuri, Koivisto & Hamari 2018, Koivisto & Hamari 2019) but, importantly, to foster motivation (McGonigal 2011, Zichermann & Cunningham 2011, Kapp 2012, Werbach & Hunter 2012, Domínguez et al. 2013, Rughiniş 2013, Sailer et al. 2013). In the field of language teaching, it has been proven that the use of technology-based games improved vocabulary acquisition (Medina & Hurtado 2017, Abrams and Walsh 2014, Yip & Kwan, 2006).

Apart from creating a more attractive learning experience (Figeroa Flores 2015: 43) and creating or sustaining a relaxed atmosphere (Figeroa Flores 2015: 32), “the main objective of gamification is to increase participation and motivate users through the use of game elements such as points, leaderboards, and immediate feedback. [...] [I]t contributes to the positive development of some personality factors like self-esteem, risk-taking and most of all motivation” (Figeroa Flores 2015: 37). This shows the relevance of introducing gamification in the context of online teaching. The point was made earlier that student-content interaction is an essential facet in the pedagogical design of online learning. One of Docq’s (2020a) proposals in this respect is to have students answer quiz-type questions that test the understanding and memorization of the material. Not only does a quiz-like activity impact students’ motivation but it also encourages them to be active at a distance.

5.2 Example of gamification at USL-B

The game-based learning platforms *Kahoot!* and *Wooclap* were extensively used during lockdown in Dutch proficiency classes. Such platforms make it possible to create multiple choice questionnaires, and, in the case of *Wooclap*, word clouds, open questions, or fill-in-the-gaps, for instance. The students can answer via their smartphones or their computers and compete against each other. The use of these platforms includes gamification elements with the use of competition, timers, scores and awards. The tools also made it possible to have a weekly moment of retrieval practice, that is, the act of engaging in active recall of already-learned information that has been shown to greatly improve learning (Roediger and Karpicke, 2006). Retrieval practice is often mentioned in the context of test-enhanced learning, that is, “the idea that the process of remembering concepts or facts—retrieving them from memory—increases long-term retention of those concepts or facts” (Brame & Biel 2015).

These platforms were chosen to try to motivate students to study grammar and vocabulary on a regular basis, as they had to study a vocabulary chapter and five irregular verbs every week. The weekly quizzes sometimes also addressed grammatical points covered previous week. The objectives pursued with *Kahoot!* and *Wooclap* were to foster engagement, evaluate the learning of the students (as well as giving them the opportunity to self-evaluate) and regularly encourage retrieval practice. Several studies show a positive impact of *Kahoot!* on language learning, such as L2 vocabulary acquisition. For instance, Medina & Hurtado (2017) did an experimental study and observed a better vocabulary acquisition in a group of students learning with the use of *Kahoot!* when compared with a control group⁵.

The teacher of the Dutch proficiency classes organized weekly quizzes at the very start of each class. Ten to fifteen questions were asked in every quiz as to avoid making it too tiresome. These activities lasted about fifteen minutes. After each question, the correct answer was given, and the incorrect answers were addressed if need be, for instance with a restatement of the theory. Two more substantial tests, which included about twenty questions, were organized in the middle and at the end of the semester

⁵ Some other studies, however, showed no significant impact on the motivation to learn Dutch for instance (Anckaert et al 2020).

in order to revise the vocabulary covered during the term. Concrete examples of quiz questions implemented in this course are presented in Table 4.

Type of question:	Used for:	Examples:
Open question (One word answer)	Translation, synonyms, antonyms, fill in the blank	“Geef een synoniem voor <i>enorm</i> ”: <i>immens</i> ‘Give a synonym for enormous: immense’
Question with two possibilities	Determiner choice (<i>De/het</i>)	“Is het “ <i>de</i> ” of “ <i>het</i> ” huis?” -> <i>het</i> (Determiner of ‘house’)
Multiple choice question	Irregular verbs: choose the correct conjugation between four possibilities	<i>Beginnen</i> (‘to begin’): - <i>Began</i> – <i>begannen</i> (*) - <i>Begon</i> – <i>begonnen</i> (v) - <i>Begin</i> – <i>beginnen</i> (*) - <i>Began</i> – <i>begonnen</i> (*)
Fill in the blanks	Fill in a sentence with the right form of a verb or of an adjective (with or without –e in Dutch)	“ <i>Gisteren (eten) hij een ijsje</i> ” -> <i>at</i> ‘He (to eat) an ice-cream yesterday -> ate’ “ <i>Het is een (mooi) dag</i> ” -> <i>mooie</i> ‘It is a beautiful day’
Find the odd one out	Find the word that does not belong to the same word class, for instance when studying lexical derivation (E.g.: all words are nouns except one that is an adjective)	“ <i>Wie is de indringer?</i> ” ‘Find the odd one out’ - <i>Verwantschap</i> ‘relationship’ - <i>Wenselijk</i> (v) ‘desirable’ - <i>Lieverd</i> ‘sweetheart’ - <i>Luiard</i> ‘sloth’

Table 4: Question types and examples of questions in Wooclap activities

These questions could be asked in traditional vocabulary and grammar tests or exercises. However, the fact that they were given to the students in the form of a *Wooclap* quiz generated much enthusiasm in the student group. The gamification aspect, competition and low stakes (as the results were not graded) made all students engage with the material. After a time of experimentation with or without timer, and with or without scoreboard, the settings were consistently defined on ‘competitive mode’ as it made the quiz more dynamic, and the students were visibly more engaged in the game. This informal observation is confirmed by Wang and Lieberoth (2016) who showed that the engagement, fun, motivation, and effort that students have in a *Kahoot!* activity with audio counting, scoring, or reward systems is greater than when the application is used without these settings (cf. also Glover et al. 2012, Buckingham 2014 and Nieto-Escamez & Roldán-Tapia 2021 for similar conclusions). In the end, *Wooclap* was used more regularly than *Kahoot* as it offers many more possibilities in terms of question types as well as the possibility of including explanatory slides between challenging questions.

5.3 How did gamification maintain student engagement?

We do not claim that gamification works miracles and systematically drives all learners to study on a weekly basis. The use of gamification is not necessarily a guarantee that students will engage in the material and be motivated to study, and there is “no evidence indicating that gamification yields better learning outcomes than could be obtained with more traditional strategies” (Nieto-Escamez & Roldán-Tapia 2021). However, it must be noted that a majority of our students did study regularly, and scored well on the quizzes, which might indicate improved learning, even though it cannot be ascertained without a control group.

Even if it is difficult to evaluate whether or not the gamification of some activities had an impact on students’ learning and performance, it had at least three positive effects. First, these gamification activities improved class morale, as they made the online classes enjoyable, both for the students and the teacher. It created a motivating and enthusiastic virtual classroom atmosphere. Second, they seem to have encouraged students’ engagement and attendance. Finally, they favored meaningful interaction in the L2, as the students commented and reacted in Dutch on the questions and the answers. As such, as proposed by Huang Huang Hsin Yuan & Soman (2013), gamification needs to be looked at from both a ‘self’ perspective and a ‘social’ perspective: while gamification can focus on making students recognize self-achievement or things they haven’t acquired yet, interactive competitions along with cooperation make students feel that they belong to a community.

5.4 Critical assessment

Nieto-Escamez & Roldán-Tapia (2021) reviewed eleven papers written about the effects of gamification on teaching during the Covid-19 pandemic. They concluded that students generally welcomed gamification and considered it “innovative, engaging, and an efficient strategy to deliver curricula material” (2021: 1). Moreover, gamification was reported by some students as an effective social support as some declared that “gamified videoconferences aided to connect with their classmates during isolation time” (Nieto-Escamez & Roldán-Tapia 2021). Figure 2 summarizes the positive outcomes that were reported on in the reviewed papers as well as informally observed at USL-B. It must however be noted that it is difficult to evaluate whether or not gamification led to improved learning in the classes described in the present chapter. Nieto-Escamez & Roldán-Tapia also note that gamification alone is not enough: “in order to increase the interest and motivation of students, they should receive continuous support from the teaching staff, and the aim of the [gamified] activity should be clear for all of them” (2021: 7).

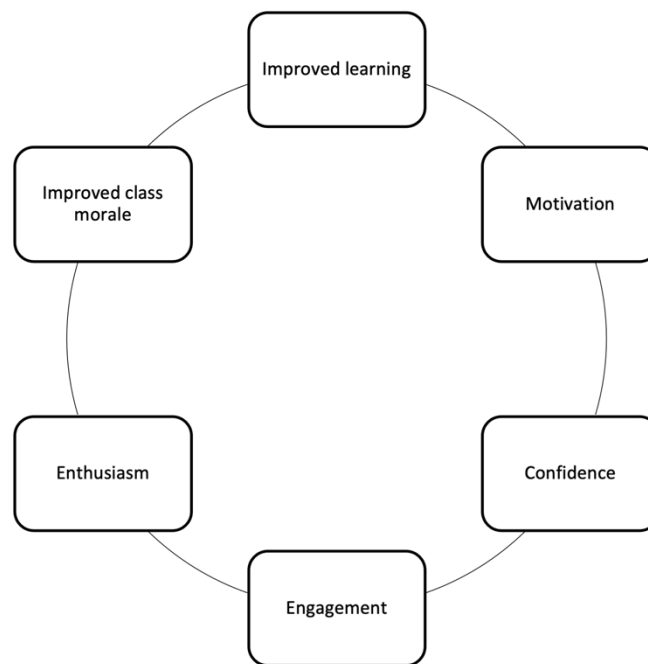


Figure 3: Positive outcomes of gamification in Nieto-Escamez & Roldán-Tapia 2021

It is hence important to stress that in a gamified classroom setting, the tool is not designed or used solely for fun and enjoyment (although this is part of the experience): it has to be *focused* and serve a *purpose* (Werbach & Hunter 2012, Huang Hsin Yuan & Soman 2013, Figueroa Flores 2015). Furthermore, Docq (2020a) underlines the importance of having quiz- and game-like exercises accompanied by intelligent feedback: comments like “Incorrect!”, “Bravo!”, “Go back to the theory!” do not really help learning. The teacher should make sure to provide the students with feedback, explaining *why* the correct answer is correct (cf. the student might have clicked on it by accident in the case of multiple choices questions), why each incorrect proposal is incorrect, ... Intelligent feedback also makes sure the students learn something new or in a different manner (restatement of the theory, new example, new connection between two elements that they maybe had not seen before, etc.).

Lastly, designing complex and intellectually stimulating questions is not easy, and is time consuming (cf. also Docq 2020a). Even though the creation of quizzes and feedback every week took up a significant amount of time, the return on investment was worth it. This experience led to the systematic use of these platforms in the Dutch proficiency courses (as well as in other courses at USL-B), also in the context of in-person teaching. Gamification can be effectively implemented together with traditional teaching methods, and can be a valuable instrument in post-Covid-19 times (cf. also Nieto-Escamez & Roldán-Tapia 2021).

6 Conclusion

At the time of writing, we are still very much in the midst of a pandemic that shows no sign of receding – and even less so vanishing – anytime soon. We have been weathering an uninterrupted and exhausting succession of Covid variants and concomitant waves, but the history of past pandemics offers us some real hope that, sooner or later, this sanitary crisis will be over. When this time comes, teachers will need to decide whether to go back to the traditional forms of teaching they had to move away from or to

embrace the changes that the context forced upon them, hopefully resulting in improved teaching methods. We believe that there is a strong case to be made for the latter option. Although it is still too early to fully appreciate the true impact of the pandemic on education, we feel that there are already some important questions to address, lessons to learn, changes to implement, problems to fix, and future paths to explore.

The first and most important lesson is certainly that of the key role of the teacher. A close second is the importance of human interaction in the learning process. There is nearly universal truth in the claim that, in Carré's words, "we always learn alone but never without the others" [our translation] (Carré 2005). Yet paradoxically, this truth seems to have been forgotten time and again in university education. In a context where technology-enhanced learning is on everyone's lips any time a new educational reform is drafted – and amidst a crisis where the very survival of education has been contingent upon access to technologies – we propose a paradigm shift away from technology-enhanced learning towards a more central paradigm which we shall name 'teacher-enhanced learning'. This is certainly not to say that there is no room for technologies in education. Quite on the contrary, our accounts illustrate how technologies helped build an online community of learners and engage them into meaningful activities. However, we are of the view that enhancing learning is not so much a matter of technologies as it is of teachers assuming their pedagogical role to the fullest, carefully selecting relevant content from the maze of information available, and designing intellectually engaging activities where their students feel nurtured but challenged, guided but free to make their own choices, individually engaged but collectively motivated.

The nearly tautological nature of the observation that the teacher plays a key role and that human interaction truly matters in university education inevitably prompts us to address the elephant in the room: how did we lose sight of this in the first place? How can we justify the fact that – still to a very large extent – traditional university teaching can be defined as 'reading PowerPoint slides'? There are probably many reasons that could help us answer those questions and discussing all of them obviously falls beyond the scope of this chapter. Likewise, we certainly do not want to place the blame on teachers alone. If anything, university teaching comes with challenges that even the best of pedagogues may not be able to fully address (e.g. increasing student numbers, the constant pressure to publish research papers, ...). But these very real challenges cannot justify the pedagogical complacency that is still quite rampant in university teaching and which rests on the false pretense that "this is university after all and yes, we teachers are highly demanding". This mentality implies that students have no choice but to adapt to whatever pedagogy (or absence thereof) they will be confronted with and make the best of inefficient yet 'traditional' teaching forms.

As illustrated in our own accounts, some of the changes we brought to our pre-Covid instructional design – and in particular the OCL design – came with the unexpected discovery that students who had been categorized as 'weaker' could – as an apparent result of these changes – thrive and demonstrate their abilities. Although we did not gather evidence to support a causal link between changes in instructional design and changes in student performance – this had never been our intent in the midst of the pandemic – this key observation begs the question of how to fairly assess our students, and most importantly, how to provide equal opportunities for success rather than favor those who, as Sir Ken Robinson would argue, most resemble their university professors and best fit the traditional teaching mold (Robinson 2006). Our call to ensure equal opportunities for all students should not be mistaken for a call to embrace the learning styles neuromyth (see e.g. Sander et al. 2018: 45-59 and Tokuhamu-Espinosa 2014: 11-15; 37), nor should it be interpreted as an invitation to lower the bar and make university education less demanding. It is our contention, however, that being demanding should never be a unilateral requirement. If we expect the best from our students, they have the right to expect exactly the same from

us – not only as domain experts, but also as pedagogues. We feel that things have been moving in the right direction recently and we applaud the existence or creation of so-called learning labs to support teachers and help them develop their pedagogical skills. But these changes alone cannot bear fruit without a collective change in attitude regarding how we view our role as teachers, how we define traditional teaching in universities, and how willing we are to collectively work on reshaping the traditional teaching mold into fairer and more engaging methods.

Interestingly, the Covid-19 pandemic has not so much created as revealed and/or exacerbated problems that were already quite present in university education. As far as we are concerned, it is no understatement to say that the pandemic forced us to reassess our own practices and determine how to improve them. Likewise, it helped us understand that one should not confuse content with knowledge, and that – contrary to what many opponents of technologies and online teaching would have us believe – one should not mistake physical proximity for engaging presence – the latter being possible without the former (see for e.g. Lebrun 2019). The impact that some of our pedagogical decisions have had on our students and ourselves feels so deep and significant that we view this experience as something close to an epiphany-like moment, hence our desire to share it in the present chapter. However, we must beware of intuitions and feelings, no matter how genuine and sound they may appear to be. It is crucial we keep a critical eye on what we have started to implement, lest our practices crystallize into pedagogical dogmas of a new but no less harmful sort. We cannot be blinded by our own preferences nor seduced by a few positive comments from our students. Likewise, we cannot mistake changes for evolution. Not all changes are good and only those that will prove to be positively impactful for our students should be retained.

All in all, the stories we have shared in the present chapter are not stories of how technologies saved education in a time of pandemic crisis. At their core, they are stories of human beings who, by their very *presence* and interaction, found ways of enhancing their learning and teaching experience – even *at a distance*. How these stories end is yet to be written and mostly depends on our own choices, which is a refreshing thought at a time when so many aspects of our lives are still mostly decided for us all.

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