“GETTING REAL” WITH ACTION RESEARCH IN TECHNOLOGY-MEDIATED TASK-BASED LANGUAGE TEACHING (TBLT): A PROPOSITION, A MAP AND THREE CASE STUDIES

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Abstract
This paper argues that the methodological framework known as “Action Research”, on the one hand, and a technology-driven, task-based approach to language teaching (TBLT), on the other hand, can be matched with a mutually beneficial effect. The cornerstone of any sound TBLT practice is an authentic, motivating, relevant and purposeful task with a real-world (i.e. primarily non-linguistic) outcome. However, the recent, and perhaps rather univocal embrace of technology in TBLT circles could potentially lead to a diluted interpretation of the concept of “task”, as technology could literally “screen off” the learner from the real world. The framework of Action Research, with its insistence on socially relevant, inquiry-based interventions, redirects task design towards real-world conditions. At the same time, AR benefits significantly from the introduction of technological tools. Onto a model of the AR process, several apps and tools were mapped that release the typically community-embedded AR practices from the limitations of time and space. The paper is concluded by three case studies taken from diverse fields in higher education (engineering education, psychology and teacher training), in which an innovative AR approach is enabled by technological tools, and which illustrate that AR-inspired task design can lead to simultaneous acquisition of language, research and technological competencies.

Keywords: Task-Based Language Teaching, Technology in Education, Action Research, Action Learning, Digital Literacy, Research Skills, Language Acquisition.

1 INTRODUCTION
Since the turn of the century, the field of (first and second) language teaching has witnessed the steady rise to prominence of “task-based language teaching” (TBLT) as a pedagogic framework for the acquisition of linguistic competencies. TBLT is a Dewey-inspired experiential learning approach, in which learners engage in a meaningful, primarily non-linguistic activity – a task – “in order to attain an objective, and which necessitates the use of language” [1, p. 4]. In other words, language skills are acquired in the process of performing meaningful, authentic tasks with a real-world objective and outcome [2]. As such, the TBLT framework opposes itself to traditional, “element-based” language teaching approaches that focus on (often segmented) theory and (often repetitive) drill.

Coincident with the emergence of TBLT, the field of language teaching was increasingly transformed by the use of technology in language learning. Unsurprisingly, technology-mediated language learning and TBLT soon attracted each other’s attention. TBLT became a preferred area of interest for educators exploring the use of technology to enhance the learning process. According to González-Lloret, for instance, “TBLT presents an ideal platform for informing and fully realizing the potential of technological innovations for language learning” [3, p. 193]. In her 2014 publication, she argues that “Web 2.0 technologies create unprecedented environments in which students can engage in ‘doing things’ through technology-mediated transformation and creation processes” [4, p.3]. Indeed, the opportunities for using email, chat, blogs, wikis, podcasts, fandoms, RSS feeds and social media platforms in task-based language acquisition scenarios are ample.

An added benefit of technology-enhanced TBLT is that it creates a surplus learning outcome, as not only linguistic/communicative but also technological/digital competencies are necessary to attain the task objective [4]. As such, technology-mediated TBLT appears to be an approach that truly befits the 21st century.
2 PROBLEM DEFINITION

However, the pedagogic junction of technology-mediated language learning on the one hand and TBLT on the other is not as self-evident as it may seem. In TBLT circles, following a phase of unchecked enthusiasm that was verging towards “a point where almost anything related to educational activity (could be) (...) called a ‘task’” [1, p. 3], a broad consensus was reached that a “task” should meet a set of quality standards. Also in the field of technology-mediated TBLT, the awareness grew that the concept of “task” should not be stripped down to any type of exercise – that, for example, quizzing the vocabulary of language learners with Kahoot does not fit within the framework of technology-mediated TBLT.

A useful point of reference in this discussion is the SAMR-model that was introduced by educational researcher Ruben Puentedura to differentiate between uses of ICT in education (see Fig. 1). He draws a distinction between Substitution, Augmentation, Modification and Redefinition, with the former two belonging to the “Enhancement” zone and the latter to the “Transformation” zone.

![Figure 1. The SAMR-model by Ruben Puentedura [5].](image)

In the “Enhancement” zone, the use of technology does not make a fundamental difference in the educational practice: technology substitutes for existing tools or perhaps adds some functionality, but it does not touch the essence of the teaching practice. To return to the Kahoot example: the app substitutes for quizzing students orally or in writing, and it adds the functionality of a real-time ranking but it does not reconfigure the foundations of the teaching approach. The app may well be experienced as an “enhancement” of classroom practices – and it is fun, for sure - but Kahoot still fits comfortably within an entrenched conception of learning focusing on knowledge, drill and testing.

In the “Transformation” zone, however, tech does allow for significant task redesign (Modification) or it even allows for the creation of new tasks that were previously inconceivable (Redefinition). Remarkably, the keyword above the dotted line, in the “transformative” field, is “task”, whereas it is “tool” below. The word “task” links up Puentedura’s framework to the field of task-based or task-oriented teaching and learning, in which the teacher sets a challenging task for students while providing just the amount of support needed for the student or the team to succeed. What primarily drives the learning process is the students’ ambition to succeed in a meaningful, real-life task, not a teacher’s ambition to “transmit” knowledge relative to the target language.

Well-aware of the importance of the way in which the “task” is defined, practitioners of technology-mediated TBLT drew up lists of criteria. In his 2017 publication “Designing Technology-Mediated Tasks for Language Teaching: A Methodological Framework”, Bernardo Lopes, for one, identifies the following criteria [6]:

a) **authenticity**: is the task relevant in terms of learners’ real-life experience?

b) **motivation**: does the task meet learners’ actual needs and interests?

c) **meaning**: does the task prompt meaningful interaction or does it focus only on the “mechanics” of language?

d) **purpose**: do learners experience a clear relationship between the task and activities they will be performing in their future lives?
e) **process and/or outcome:** are the learners the driving forces that move forward the process and/or outcome?

f) **social interaction:** is meaning effectively conveyed to and negotiated with other learners?

At their core, all of these requirements presuppose what González-Lloret identifies as “a ‘real-world relationship’” [4, p. 6]. In other words, if the link with the lived realities of the learners is forfeited in the task design, then the task will lose its effectiveness.

Strikingly, this insistence on authenticity and real-world experience can be perceived to exist at odds with the interest that contemporary researchers of technology-mediated TBLT entertain for synthetic immersive environments (SIEs) such as online multiplayer games, digitally augmented reality games and virtual environments [7],[8],[9]. One example in González-Lloret's edited volume refers to Croquelandia, a synthetic environment built to the specific and sole purpose of having learners of Spanish meet in a virtual world to learn a) how to appropriately perform requests and b) how to offer apologies [8]. It seems fair to say that the real-world relationship in this case is tenuous, at best. After all, how are learners to experience such “tasks” as motivating, purposeful and authentic, if the task prompts are entirely synthetic and reduce the rich field of social interaction to two specific language acts? Is it really enough for players to be able to maneuver an avatar across the screen to feel they are the driving force behind the learning process?

### 3 A PROPOSITION AND A MAP

The central proposition of this paper is that the methodological framework of Action Research (AR) provides a pathway towards integrating technology into TBLT while guaranteeing an indubitably authentic, real-world task design. AR refers to a family of practices that are dedicated to improving real-world situations by well-planned interventions (cf. “action”) that are preceded, supported and evaluated by rigorous inquiry (cf. “research”) [10]. Unlike the “quests” performed in SIEs, AR “takes place in real-world situations, and aims to solve real problems” [11] and typically it “involves people who are concerned about or affected by an issue taking a leading role in producing and using knowledge about it” [12, p. 96]. Action Research, in other words, emerges directly from the direct, lived experience of the people – a community, however defined – involved. A real-world outcome is the primordial rationale of all AR, and as such, the much desired “real-world relationship” of the task is guaranteed. Conscientious application of the AR framework, in sum, rules out any chance of a diluted interpretation of the concept of “task”.

The AR praxeology is by no means strictly procedural and takes manifold shapes, but roughly speaking, an iterative process can be discerned in which, consecutively, a problem or need is identified; data is collected, analysed and interpreted; results are shared; and finally, action is planned, executed and evaluated (which, in turn, typically leads to a new AR cycle). With respect to almost all of these stages, a remarkable observation is that language will and technology can play a crucial part. Common techniques in the AR toolbox are key informant interviews, document analysis, community meetings, diaries, public dialogues, storytelling, improvisation,… - all of which are very deeply ingrained in language [13]. Of course, it comes as no surprise that communication and language are at the very heart of the AR practice, as one of the key tenets of AR is community participation and collaboration.

But also technology can play an important role in AR. Traditionally, AR techniques are very much face-to-face, tactile and sensorial: the researchers-participants meet in real life and they talk, discuss, draw, walk, freewrite, improvise, etc. But contemporary ICT tools allow for communication and collaboration across time and space. For instance, researchers-participants can set up chat groups on social media or use other Web 2.0 to share and to collaborate. The map below provides a first step towards identifying the tools and apps that are useful in the AR process. The map is by no means exhaustive, but it does make the point that the *modi operandi* of AR can be boosted by the use of technology.
Stoodle, to zoom in onto just one example, is a tool that allows researchers-participants to collaborate across time and space: users can chat, draw, write, add photos and build timelines collaboratively, even if they are not able to meet face-to-face, which has the potential of accelerating and redefining the AR process to a significant degree. Communication and collaboration, pivotal to any AR practice, are released from practical and logistic constraints, and communities of researchers-participants can now be defined independently from geographical limitations.

If, in sum, the methodological framework of AR

- a) ensures a real-world relationship and, hence, authentic, meaningful and motivating task design;
- b) necessitates rich and diverse use of language;
- c) accommodates the use of technology;

Then AR can indeed resolve the tension between task-based language teaching on the one hand and technology on the other. And what is more: doing tasks that were designed from within the AR framework, students will not only acquire linguistic and digital competencies, but they will also develop research competencies to boot.
4 CASE STUDIES

The following three case studies show how technological tools can enable an AR project with a strong real-world relationship and with valuable learning outcomes in the fields of language acquisition, digital literacy and research skills.

4.1 Case study 1: Researching soft skills with students in Industrial Engineering

A first example is taken from my teaching practice as teacher of English, communication and academic writing at the Faculty of Industrial Engineering Sciences of KU Leuven & UHasselt (Belgium, Diepenbeek). A problem that the first-year students in particular face is that they are expected to meet a host of learning objectives in the field of so-called “soft skills” (writing, presenting, doing teamwork, meetings, foreign languages…) while they are not necessarily convinced of the importance of such skills in the context of their future careers. This specific AR task design is such that I do not tell the students that these skills are truly important – research indicates that this approach is likely to misfire anyway [14] - but that I ask them to research the curricular relevance of several language and communication skills for themselves. The end goal – the “action” of the AR project - is to optimise the current curriculum vis-à-vis workplace expectations.

The main research instrument is an online questionnaire, developed with and shared through Google Forms. From 2010 until 2017, close to 1500 professional engineers have completed the questionnaire; around 140 student group papers have been written; and several student curricular recommendations have effectively been implemented [15]. In 2012, the set-up was validated through a questionnaire completed by 142 students. The students reported that the set-up had improved their academic writing skills while also convincing them of the importance of soft skills for engineers.

4.2 Case study 2: Health promotion with students in Applied Psychology

A second example is taken from the education development project Bee-com a 21st century communicator, funded by OOF KU Leuven, that I supervised (2011-2013). One of the pilots in this project was conducted at the Department of Applied Psychology (Thomas More University College, Antwerp), and more particularly in the course Health Promotion. Students were tasked with identifying and researching a pressing health issue amongst their peers (e.g. smoking, unprotected casual sex,….) and to develop a multimodal campaign to influence this particular target’s groups behaviour. The students gathered data using a mixed method approach. The design of the multimodal campaign – the “action” in this AR project – was supported by an online platform and game board developed by the OOF project workers [16]. The resulting intervention was developed by low-threshold multimodal design tools and web building tools and shared through social media. The pilot project was validated through two focus group interviews.

4.3 Case study 3: Improving in-class performance of students in Teacher Training

A third example is taken from the two-year education development project Touch Teach Learn that I supervised, which aimed to research the potential of handheld devises for higher education in Flanders (2013-2015, funded by OOF KU Leuven). In one of the pilots, conducted at the Department of Teacher Training, students action-researched their in-class performance. The problem is that students, while on an internship in a primary or secondary school, are typically visited only once by their supervising teacher for evaluation. For the internship supervisor, the constraints are of a practical, time-related nature. To enable iterative rounds of formative feedback for the teacher trainees during their internship, we tasked students with identifying one point of focus to improve their teaching style and to document their teaching using a smartphone or tablet (mounted on a Swivl, in some cases). The students made a collage of relevant footage, which they self-commented upon and shared with a “resonance group” of four peers and the internship supervisor using a closed Facebook group. Peers and teacher could provide feedback and interact with each other and with the student. Two iterations were executed before the final visit of the supervisor, so that each student was well-

1 The digital version is to be found here: https://associatie.kuleuven.be/en/np/beecom/. The tab “Hoe ga je tewerk?” shows some movies of students working with the demo version of the game board.
supported by formative feedback before the final, summative assessment. The pilot project was validated through two focus group interviews [17].

5 CONCLUSIONS

What the examples above have in common, first of all, is that they exemplify Puentedura’s “transformative” use of ICT in education. The tasks are hardly conceivable without the implementation of technology: a) without the use of Google Forms, it would have been next to impossible for the engineering students to gather sufficient data for drawing valid conclusions about the importance of communication skills for professional engineers; b) without the use of Web 2.0 tools such as website builders and social media, it would have been next to impossible for students to take informed action with any impact; and c) without the use of smartphones and social media, it would have been next to impossible for the teacher education students to gather so much relevant feedback.

Also, the case studies exemplify a form of technology-driven TBLT that moves away from simulated, synthetic environments and, instead, reaches out to the real world: students are confronted with relevant, authentic real-world problems that invite non-linguistic outcomes and actions, while also necessitating a wide array of linguistic interactions and outputs (writing an academic paper, making a brochure or website, formulating feedback,…). The added benefit of introducing Action Research into technology-mediated TBLT is that not only language skills and technological competencies are acquired, but also research skills are improved. A limitation of the approach, however, is that it is only suitable for students who are already well-versed in the target language, whether first or second. It helps students expand the depth and breadth of their language proficiency, but it is not useful for beginning learners.

A final noteworthy observation is that the AR based approach to technology-enabled TBLT, which relies mainly on free, low-threshold technological tools, is less likely the widen the digital divide than the implementation of dedicated synthetic software environments such as games, virtual and augmented reality would. Action research starts from the lived, direct experience of the learner and it encourages the use of technologies that reach out the real communities around him. Used wisely, such low-threshold technology can be high impact.

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