

An Analysis of
Language Learning
in Higher Education
Institutions.
The Role of Mobile
Learning and the
Possibilities of
Data-driven
Language Learning



TELL-OP Intellectual
Output 7-A1

Policy Recommendations for
Higher Education (HE) Institutions



EXECUTIVE SUMMARY

TELL-OP is a Strategic Partnership that aims to improve European formal and HE learning by using ICT-assisted personalized language learning in mobile devices through the use of Natural Language Processing (NLP) technologies and Open Educational Resources (OER).

In the context of HE education and mobile learning (ML), UNESCO has contributed largely to the policy formation of ICTs in HE. Three main suggestions are made: access to ICT infrastructure and equipment, teacher capacities and monitoring. However, ML is not widely considered as an independent branch of ICTs, despite the existing amount of research providing evidence of the benefits of ML, an issue in which UNESCO pointed to the lack of awareness of their potential as to blame.

There are, however, significant advances in this field, Denmark, United Kingdom and the Netherlands being the countries that have contributed the most to ML. A large number of policy recommendations have been produced in order to help in the correct use of mobile devices for learning in different fields. After going through the extensive research on policy recommendations

for ML, this output reviews EU policies on mobile learning in higher education institutions and developments in the inclusion of ICTs in HE analyzed by TELL-OP.

An unabridged version of these policy recommendations can be found on the following URL:

<http://www.tellop.eu/output-7>



The recommendations specified in this document are based on, but not limited to, the TELL-OP learning scenarios across the CEFR levels A2 and B2. A detailed description of the learning contexts, learner types and proficiency levels of the learners the TELL-OP application caters for, can be found in the TELL-OP intellectual output number 05. This report makes various recommendations across nine different areas, explained below:

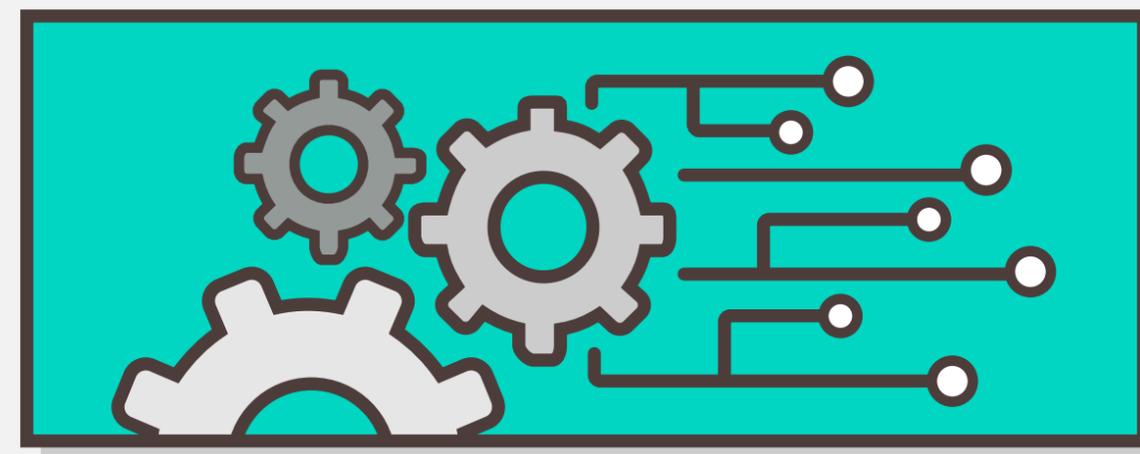
01. TECHNICAL REQUIREMENTS /MOBILE DEVICES

These policy recommendations aim at the technical considerations that teachers have to take into account when mobile devices are to be included in the classroom:

- Consider learners' devices ownership, if they all possess the same device or if they are compatible.
- Be flexible to adapt to new devices. Developments are too fast.
- Experiment due to missing/little research on new devices and let students experiment on them, too.
- Save data from learning apps (may not be transferable to other device).
- Choose extensible and programmable devices.
- Select a type of device according to its intended use.
- Develop a policy for managing application acquisition (can learner's download apps or not? → also dependent on if they own the devices).
- Offer a choice of devices to learner's to cater for the majority of learning styles.
- Investigate learners' private uses and design mobile apps that are similar to what they use in their everyday life.

01. TECHNICAL REQUIREMENTS /MOBILE DEVICES

- Explore input methods that are more suited to the interface.
- Consider trends towards over-the-air syncing and "clouds".



02. BUDGET AND COST

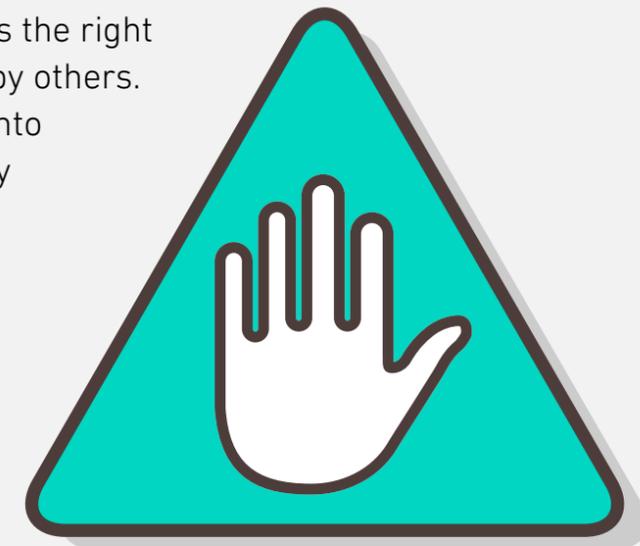
These policy recommendations elaborate on issues that are budget and cost-related:

- Compare cost and quality of alternatives (e.g. smartphones vs tablets vs laptops).
- Think about relative replacement schedules (when will the device be outdated?).
- Take into account costs of management software and IT support. Depending on the type of school m-learning can be paired with facilities cuts (substitute lessons or entire school days).

03. SAFETY

These policy recommendations describe what safety measures the teacher should mainly consider before including mobile learning in language teaching:

- Think about the issue of security, such as access to other apps or cheating.
- Prevent abuse: Mobile learning adoption policy should be accompanied by protective measures to prevent abuses → security and privacy of our experiences and those of others → everyone has the right to not be recorded or observed by others. Thus, take some ethical issues into consideration in terms of privacy or cyber-bullying.



04. APPLICATION (USAGE)

These policy recommendations as stated in this document specify guidelines on the usage of applications and devices in the classroom:

- Clarify whether the mobile learning aid applications is:
 - easy to use and suitable for everybody; rich in functionality;
 - engaging;
 - customizable to learner/institutional needs;
 - making best use of limited display and keypad;
 - using minimal network traffic;
 - not using too much battery power;
 - not using too much memory space;
 - the ability to export data;
 - supporting individual as well as collaborative learning;
 - encouraging a sense of responsibility; motivating;
 - taking user's age into account;
 - tracking each individual learners progress;
 - providing tools for teachers to create and upload their own materials;
 - including learning activities as well as multiple choice games.Gamification is important in gathering the students' attention.
- View mobile learning as a supplement for existing learning techniques

04. APPLICATION (USAGE)

rather than a replacement.

- Use mobile learning in contexts where:
 - learners are mobile,
 - spontaneously,
 - to produce and consume knowledge,
 - both individually and collaboratively,
 - to mediate knowledge construction,
 - in non-traditional learning spaces,
 - as a bridge between formal and informal learning (what when where can and should students learn?) → perceptions of learning can conflict with personal choices and freedom.
 - Use also the learner' own mobile devices.
- Blend mobile and non-mobile technologies.
- Make use of the following possibilities:
 - mobility;
 - personalized and authentic learning;
 - support memory by providing chunks regularly;
 - speech synthesis;
 - interaction and collaboration on many levels;

04. APPLICATION (USAGE)

- adaptation of difficulty;
- and a feedback providing system to reflect on teaching.
- Limit multi-tasking and environmental distractions.
- Learn from your students (what do they already use and how?).
- Make sure that the app enables situated learning or learning in context, using phones with cameras/video capabilities to enable students to capture their own material and instantaneously transfer to other students and lecturers.
- Develop a shared language, knowledge and understanding.
- Ensure fast communication and information for students (integrated messaging features so that users can text each other directly from the app.).
- Test whether the application is downloadable and accessible without internet connection.
- Implement mobile devices as cognitive tools, rather than low level communication or recording devices to avoid technology-driven education.
- Supply teachers with help about the practical and theoretical basis of how to use mobile phones for language teaching.

04. APPLICATION (USAGE)

- Encourage teachers to adopt a positive attitude towards technology.
- Set the learning environment within an authentic and realistic context, be complex, require investment of time and intellectual resources, require examination from multiple perspectives, require collaboration and reflection, be integrated with assessment, and supported by scaffolding.
- **Do not** just do the same in another medium.



05. LEARNING AND TEACHING MATERIALS

These policy recommendations are guidelines for students as well as teachers in what has to be considered when and what type of learning and teaching materials to include in language learning with mobile devices:

- Provide:
 - monitoring and interactive functions in materials (it's not enough to just give input),
 - also apps for reference resources,
 - audio material, (character recognition: not for our languages),
 - exercises or apps to improve their vocabulary and grammar knowledge,
 - writing, spelling and listening skills.
- Support skills needed for working with mobile technologies.
- Involve students in development of materials.
- Try to use minimum bandwidth.
- Ensure access to online resources which are available for language learning.
- Build on the existing preferences of students for social communication, listening to audio, watching videos and reading short texts.
- **Do not** put emphasis on the tool but on the learning.

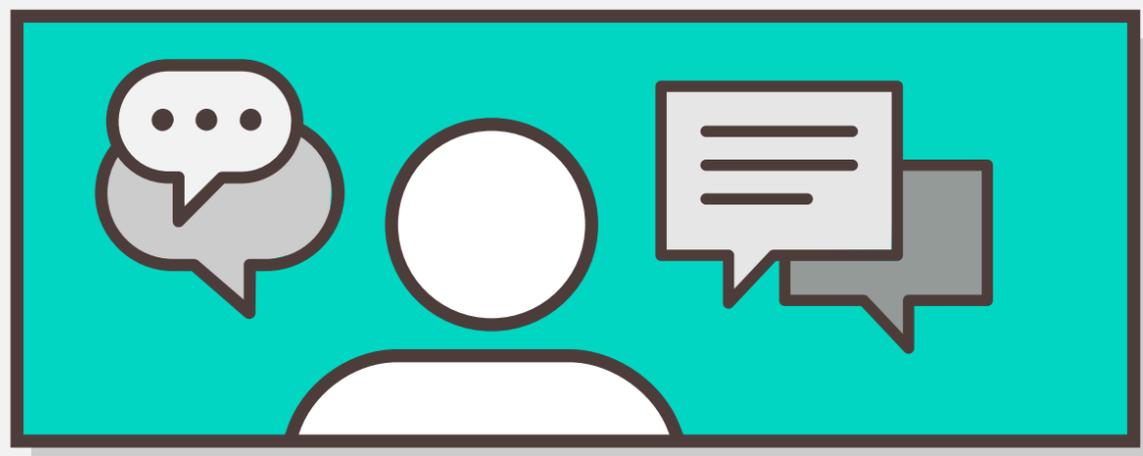
06. LANGUAGE SKILLS AND AREAS

These policy recommendations consider the language skills and areas (listening, speaking, writing, reading, and lexico-grammatical knowledge) that are targeted or should be targeted when making use of mobile devices in language learning:

- Target the following skills:
 - Vocabulary (memorization, access to meaning, contexts for use);
 - Reading;
 - Writing;
 - Grammar;
 - Translation tasks;
 - Speaking and Pronunciation.
- Include applications for vocabulary learning that:
 - integrate auditive and visual elements;
 - allow individualization of contents;
 - provide contextualized examples;
 - allow for individual sorting of items into categories;
 - send reminders regularly.
- Create interactive multimedia content to increase students' listening skills.

06. LANGUAGE SKILLS AND AREAS

- Ask learners to record language practice activities in class and use these recordings collaboratively to help each other correct errors, and to research and reference grammar rules based on common problem areas.
- Encourage learners to rehearse speech and writing and to develop skills in 'learning how to learn' and attend mindfully to the learning process.



07. TASK CREATION AND TYPE OF ACTIVITIES

These policy recommendations suggest what teachers should consider when creating tasks with the use of mobile devices and what type of activities are feasible or recommended:

- Participate in activities: This influences your view towards mobile technologies in language learning.
- Design/Create:
 - shorter, less demanding tasks for mobiles that can be completed without requiring a heavy cognitive load,
 - activities that foster autonomous learning among students,
 - a variety of interactive and motivating language learning tasks and activities which are appropriate and well-designed according to students' proficiency level,
 - a personalized and meaningful learning experience,
 - activities that enhance motivation by making them engaging, meaningful, organized and enjoyable,
 - collaborative mobile learning practices.
- Make:
 - make the activities readable on a small-sized screen or provide activities that are unrelated to the screen (e.g. listening activities),

07. TASK CREATION AND TYPE OF ACTIVITIES

- make some students responsible for creating polls or collecting tweets in answer to a question posed at the end of a class, to be shared in a subsequent lesson,
- make existing class activities more practical and meaningful for language learning by using mobile technologies,
- make them aware of strategies and ways of use (talk about multitasking and effects).
- Give:
 - give learners outside-class learning tasks that involve interacting with other English users (face-to-face or online) in order to situate learning, involve a learner's community and add authenticity,
 - give opportunities for your students to be involved in interactive activities, e.g. in chat rooms,
 - give additional material in areas that students are interested in for extensive reading and listening,
 - give peer support and discussions about the use of mobile devices.
- Lower the affective filter with your activities.
- Expose learners to language as a dynamic system.
- Adapt the activity to the device and check what kind of input is needed.

07. TASK CREATION AND TYPE OF ACTIVITIES

- Involve physical movement into activities (supporting cognitive structures) sorting etc.
- Support interaction between teachers.
- Avoid using difficult tasks that cause anxiety.
- **Do not** underestimate influence of attitude (towards tool, feeling of own proficiency).
- **Do not** separate platform from activity.

08. TEACHER PRACTICES

These policy recommendations aim at facilitating the use of mobile devices by pre-service teachers and in-service-teachers in language teaching and to overcome the technology-related insecurity. The main aim is to support teachers in the inclusion of mobile devices in their language teaching and to improve their practice:

- Act as a guide and facilitator.
- Address issues of equity and access to technology:
 - Access to ICT within and amongst the institution, to ICT in students' own homes, to effective models of ICT teaching and learning.
 - Skilling teachers in ICT.
- Assess the theory of mobile learning against the following criteria:
 - Is it significantly different from current theories of classroom, workplace or lifelong learning?
 - › Does it account for the mobility of learners?
 - › Does it cover both formal and informal learning?
 - › Does it theorize learning as a constructive and social process?
 - › Does it analyze learning as a personal and situated activity mediated by technology?.
- Choose ICT applications, activities and approaches that fit your own

08. TEACHER PRACTICES

perspectives on teaching and learning.

- Consider a framework that takes into account a range of contemporary options, encompassing mobile learning's lucid possibilities.
- Clarify whether mobile learning can be used meaningfully as far as the learning goals are concerned and whether this is even feasible, and whether these mobile learning sequences are used as an aid or as an obligatory sequence.
- Create a positive attitude toward mobile learning and encourage its usage in the language learning classroom.
- Decide how the learning sequences will be divided into in-classroom teaching, online- and mobile learning phases.
- Enable learners to remain more focused for longer periods and promote self-esteem and self-confidence.
- Gain an idea of non-learning purposes of mobile applications of your students and bring them to learning purposes in class.
- Give students the opportunity to select a device of their choice.
- Help students to use their mobile phones for academic purposes.
- Identify areas where learners need assistance and support and how ICTs

08. TEACHER PRACTICES

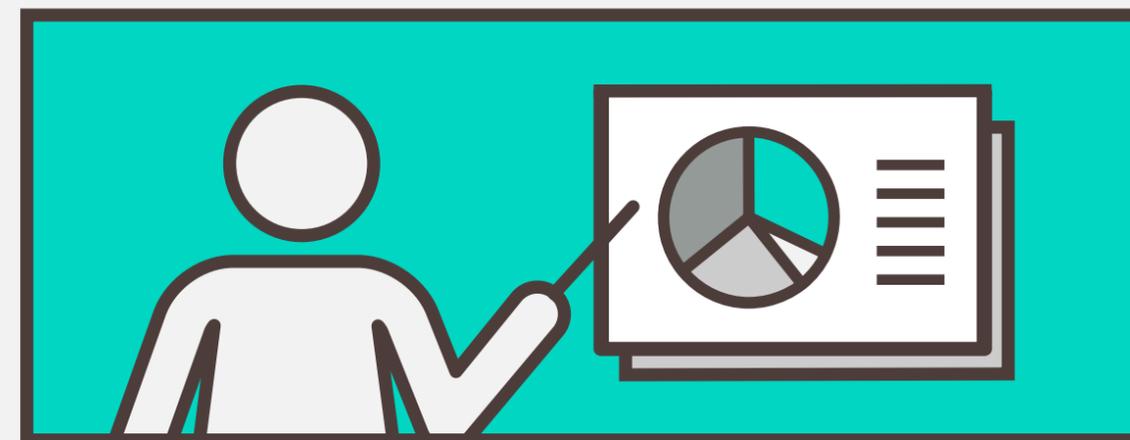
can be used to meet specific objectives within the English curriculum to improve pupils attainment.

- Integrate ICT in such a way as to require purposeful application and meaningful engagement with the technology, into subject teaching in a way that motivates pupils and enriches learning or stimulates higher-level thinking and reasoning and mobile learning meaningfully into the overall concept of the training
- Invest time developing activities and using the device before using it in the classroom.
- Keep in mind that real assessment can only occur when students have the opportunity to use the technology to develop essential skills and literacies.
- Make mobile learning part of a blend of learning activities which offer a variety of ways to address learning needs, and also make some important considerations before integrating ICTs in your classroom: Do all learners have mobile devices? Are learners willing to use their personal mobile devices as part of their language learning in or out of class? etc..
- Maximize the impact of ICT in your classroom by ensuring that you and your students use ICT as an integral part of lessons, present ideas

08. TEACHER PRACTICES

dynamically, and use a range of media.

- Mitigate resistance using ICTs and engage reluctant learners.
- Push but respect boundaries (allow the user some control over push messages).
- Reflect on the learning process of the learners and the role of the technological devices.
- Remember that different devices are more suitable for different activities.



08. TEACHER PRACTICES

- Take into account the teachers' thinking about teaching and learning generally as well as their skills with, attitude to and use of ICT.
- Train your competences for content development.
- Understand what is most important to be learnt in both class and private learning settings, and how what is learnt in both contexts can be linked to the other.
- Contribute to learners' sense of progress and achievement.
- **Do not** only employ ICTs in the classroom for reasons of convenience, pressure from school administrators or to entertain the students.
- **Do not** go backwards in pedagogy as you move forward in technology (do not fall back to older approaches, provide authentic learning environments).
- **Do not** expect learners to be able to use all aspects of the mobile technology but train and guide them.
- **Do not** be too overly concerned when students use their mobile devices for in-class purposes other than learning.
- **Do not** use technology for the sake of it or as an add-on to a lesson.

09. DDL-SPECIFIC RECOMMENDATIONS.

These policy recommendations are developed as an addition to the "task creation and type of activities" in order to provide users of mobile learning with guidelines on how to include DDL activities in language teaching and learning:

- Foster aspects of corpus competence/corpus literacy:
 - Interpreting the data:
 - › Dealing with a wealth of authentic data.
 - › Gaining knowledge about national varieties and genres
 - › Interpreting frequencies
 - Corpus linguistic background: What corpora can do and what they cannot do?
 - › Knowledge about corpus design and individual corpora.
 - › What is the variety represented?
 - › Spoken or written corpus?
 - › What genres are represented?
 - › What is the size of the corpus?
 - › Date of materials.

09. DDL-SPECIFIC RECOMMENDATIONS.

- Linguistic background knowledge: polysemy and homonymy, lexico-grammar, etc.
- Give learners a very precise, detailed and thorough introduction to corpus-based learning procedures.
- Give a thorough introduction to the tools and methods of DDL learning in order for learner-centered project phases to be successful.
- Predefine forms that will be focused on and make sure that interesting and authentic material is provided.
- **Do not** leave your students alone with the corpus data since most students do not exactly know what to investigate and how to interpret their findings.
- **Do not** let the corpus/corpora be "read" vertically by your students. DDL learning requires horizontal reading of corpus data and thus students should be exposed to whole texts in their entirety.





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