



# Digital Badges as an Organisational Principle of the Language Course

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## Abstract

*The aim of the paper is to present the initial phase of the pilot project focused on the use of digital badges in the context of English language teaching (ELT) at the University of Pardubice, Czech Republic, which was carried out with the support of EU-funding. The potential of digital badges is discussed at the level of an integration principle of formal assessment, informal assessment and self-assessment in ELT. Therefore, digital badges are presented within the framework of general theories of portfolio assessment. In accordance with the focus of the paper, the following aspects of using digital badges are emphasised: supporting the students' learning processes systematically and on a long-term basis, increasing student commitment in the learning process and identifying the acquired skills for the purpose of the students' self-presentation in their professional Résumé. Besides, the paper presents the empirical evidence obtained by means of a questionnaire survey in order to illustrate the subjective perceptions of digital badges expressed by the students involved.*

## 1. Introduction

Over the past three years, the broad field of education and training has undergone numerous massive changes in terms of the implementation of specific IT tools supporting teaching and learning processes. One of the concepts which emerged in the current phase of digital era is the use of digital badges. The debates on digital badges used for educational purposes entered the broad pedagogical discourse mainly due to the Open Badges project launched by Mozilla in 2011 [1] and owing to the subsequent synergic efforts carried out within the Moodle community which dealt with the issues of digital badges primarily from the perspective of learning management systems (LMS) and the Mahara community which focused on ePortfolios. The outcomes of these initial piloting projects represent a very useful springboard for other large scale innovations in various educational contexts.

In the Czech Republic, the educational value of digital badges is perceived mainly in relation to the area of gamification of education, as described for example by Štogr (2013) [2] or Havel (2014) [3] who list several specific areas of positive impact of the use of new IT tools in terms of for example motivation, flow of experience, certification of achievement. Unlike these authors, we apply a more holistic approach as we regard the concept of digital badge as a meaningful integrating principle of curriculum at the level of the language course taught within the university setting.

## 2. Theoretical background

The key category representing the theoretical framework of our further analyses is the concept of evaluation / assessment. In our view, the use of digital badges enters into all three basic types of language assessment as classified by Harris and McCann (1994) [4]: formal assessment (language tests), informal assessment (monitoring students' task completion within a course) and self-assessment. Besides, in accordance with the key qualities of language assessment listed by Harris and McCann (1994), our conception of digital badges is to a large extent based on the principles of formative assessment, i.e. focusing on the progress of the student in time, and we also emphasise the importance of positive backwash effect, i.e. the favourable influence of assessment on teaching and learning within a course. Accordingly, we expect digital badges to contribute successfully to fulfil the aims of the so called authentic assessment which we view similarly to O'Malley and Valdez Pierce (1996) in terms of providing authentic reflections of meaningful learning opportunities [5]. Further elaboration on the key issues of authentic assessment with regard to the potential of digital badges results in revealing some close connections between the expected role of digital badges within the language course and widely accepted general functions of portfolio assessment, summarised for example by Píšová (2004, p.42): diagnostic function, i.e. focus on the situation at this moment; self-reviewing function, i.e. focus on past achievements; and planning function, i.e. focus on formulation of future objectives [6]. Therefore, the above mentioned functions of portfolio assessment provide very useful theoretical grounding for the pilot project of using digital badges within the language courses at



the University of Pardubice, which are taught in accordance with the principles of blending learning, i.e. implementing particular e-learning components into the study subjects.

### 3. Digital badges: context and objectives of the pilot project

#### 3.1 Context

At the Language Centre of the University of Pardubice, LMS Moodle has been in use since 2010. Thanks to the UNICOM project (Innovative and Integrated Concept of Language Training towards Quality Assurance, Excellence and Internationalization) running at the Language Centre from January 2012 to December 2014, the institution is provided with its own installation of LMS Moodle and ePortfolio tool Mahara, thus allowing the teaching staff to introduce and perform certain innovations, necessary upgrades and extensions.

With designing various blended language courses and owing to working on “studentfolio” development, a need for sharing outcomes from both platforms was gradually arising, and at the same time, digital badges became an issue being discussed in both informal and formal education, including our teaching context. We introduced badges in selected language courses in 2013, first as an integral part of LMS Moodle 2.5, which was followed by investigation of the options and opportunities for exporting the digital badges in personal learning portfolio of each user either in a form of open badges backpack portfolio or Mahara learning portfolio. All these steps were taken along with the new features being introduced by developers of the involved platforms.

#### 3.2 Objectives

In order to start the piloting project at the University of Pardubice, several sets of digital badges were designed for the particular language courses taught at the Transport faculty, Faculty of Economics and Administration and The Faculty of Chemical Technology. Each badge consists of three parts: title, graphical component, i.e. the badge itself, and metadata, i.e. the information about the achievement the badge is awarded for. Two basic types of badges can be distinguished: the badge awarded to the student automatically after completing certain task in Moodle course (Fig.1) and the badge awarded to the student “manually” by the teacher of the course (Fig.2). The structure of the Moodle course is then organised as a series of tasks followed by a certification of the students’ achievement using the previously prepared digital badge.


	DPA8U IT - silver level	This badge is awarded for completing all activities focused on IT in the e-learning course English for Transport II - B1+ at SILVER LEVEL (75-94%).	Users are awarded this badge when they complete the following requirement: <ul style="list-style-type: none"> <li>o The following activity has to be completed: <ul style="list-style-type: none"> <li>o "Page - Notification – SILVER badge for the module IT"</li> </ul> </li> </ul>
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Fig.1


	DPA8U Videoconferee	This badge is awarded for taking an active part in the discussions of relevant topics during the series of VIDEOCONFERENCES held with the Finnish university Haaga-Helia, Helsinki, in the course English for Transport - B1+.	Users are awarded this badge when they complete the following requirement: <ul style="list-style-type: none"> <li>o This badge has to be awarded by a user with the following role: <ul style="list-style-type: none"> <li>o Učitel</li> </ul> </li> </ul>
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Fig.2

As suggested above, various types of tasks accompanied by digital badges relate to three basic functions of portfolio assessment. The use of badges therefore explicitly fulfils the following functions:

#### a) diagnostic function

In accordance with the definition of this particular function of the portfolio assessment, the primary function of awarding the badge is to inform the student about the current stage of his/her progress in the course. For example, the badge “Ready for the test” in Fig.3 informs the student about fulfilling all requirements defined by the teacher as a prerequisite for accessing the final test. This badge is awarded automatically by the system, based on the conditions defined by the teacher.




	<p>DPA8U Ready for the test</p>	<p>This badge is awarded for completing all prescribed activities in the e-learning course English for Transport II - B1+ at acceptable level. Receiving this badge qualifies the student to take the final test.</p>	<p>Users are awarded this badge when they complete the following requirement:</p> <ul style="list-style-type: none"> <li>o ALL of the following activities are completed:             <ul style="list-style-type: none"> <li>o "Page - Notification – BRONZE badge for the module IT"</li> <li>o "Page - Notification – BRONZE badge for the module FINANCE"</li> <li>o "Page - Notification – BRONZE badge for the module LAW"</li> <li>o "Feedback - 06 SPECIFICATIONS OF THE TEST / SPECIFIKACE TESTU"</li> </ul> </li> </ul>
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Fig.3

b) self-reviewing function

Receiving various badges provides a student with relevant information about his/her progress in the course, i.e. how s/he got to where s/he is now. Fig.4 presents a badge awarded to a student for mastering certain topic to a certain extent, within the system of bronze–silver–gold certification.


	<p>DPA8U Finance - bronze level</p>	<p>This badge is awarded for completing all activities focused on FINANCE in the e-learning course English for Transport II - B1+ at BRONZE LEVEL (51-74%).</p>	<p>Users are awarded this badge when they complete the following requirement:</p> <ul style="list-style-type: none"> <li>o The following activity has to be completed:             <ul style="list-style-type: none"> <li>o "Page - Notification – BRONZE badge for the module FINANCE"</li> </ul> </li> </ul>
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Fig.4

c) planning function

The acquired set of digital badges offers numerous possibilities of being used for self-presentation purposes. In our context, it was defined as a basis of the reflective task “My language learning story” which in fact integrated all functions of portfolio assessment, including formulating the students’ plan of language competence improvement within their further professional development (see Part 4, point d).

## 4. Digital badges: empirical evidence

At the end of one-year piloting stage of using digital badges within the selected English language courses taught by the Language Centre of the University of Pardubice, the students were asked to express their opinions about this particular component of their Moodle courses by means of a structured questionnaire. The subsequent analysis of the collected data revealed the following facts:

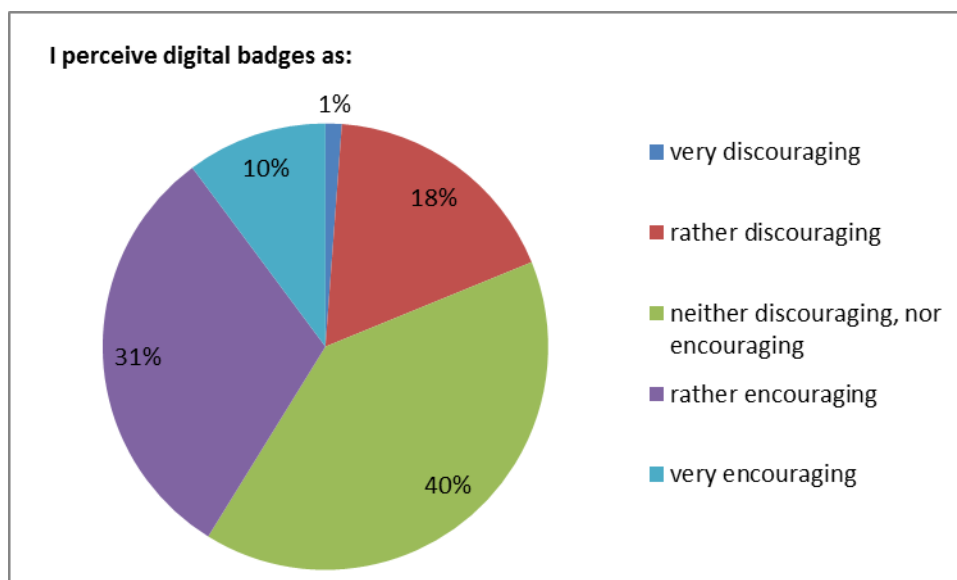


Fig.5

a) As shown in Fig.5, the group of all 255 students involved in the project in both semesters demonstrated a tendency to perceive the use of digital badges as a positive feature of their Moodle course in terms of support and encouragement. While 40% of the researched population expressed indifferent attitude, there appeared only 19% of the students who demonstrated either strong or



slight discouragement related to the digital badges, but on the other hand, 41% of the students regarded the digital badges as either slightly or strongly stimulating component of the course.

- b) When investigating the perceived importance of individual aspects of a digital badge, the huge majority of students, i.e. 66%, assign bigger importance to the information the digital badge carries rather than its graphical design, as shown in Fig. 6. This question was posed only to the students of the follow-up courses in the second semester, i.e. to the experienced users of digital badges (104 students). Out of this group, 15% rejected the concept of digital badges as a whole, which we, nevertheless, perceive as a positive feature with regard to the fact that digital badges were introduced to the students as an inevitable component of the course which may logically cause strong reactions either in favour of the new phenomenon or against it.

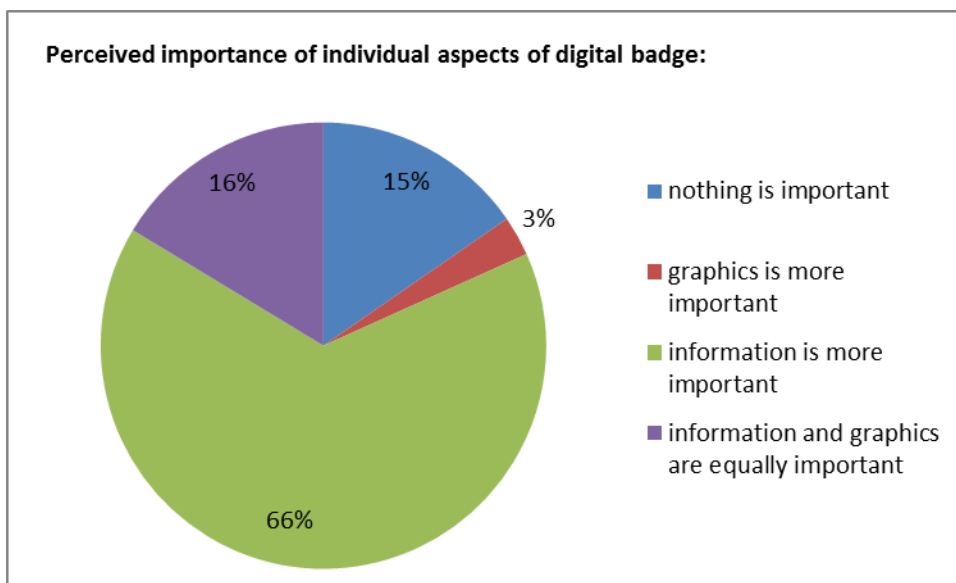


Fig.6

- c) Our generally positive interpretations of the students' perceptions of digital badges as summarised in the above Fig.5 and Fig.6 are due to the specifics of broader context. The summary of the students' prior experience with digital badges which is shown in Fig.7 reveals that their implementation within the language courses at the University of Pardubice represented a complete novelty for 95% of the students. Our expectation is that larger and more intensive experience with digital badges outside the university context may have a positive influence on the students' attitudes, which will be the subject of our further investigations in the upcoming period.

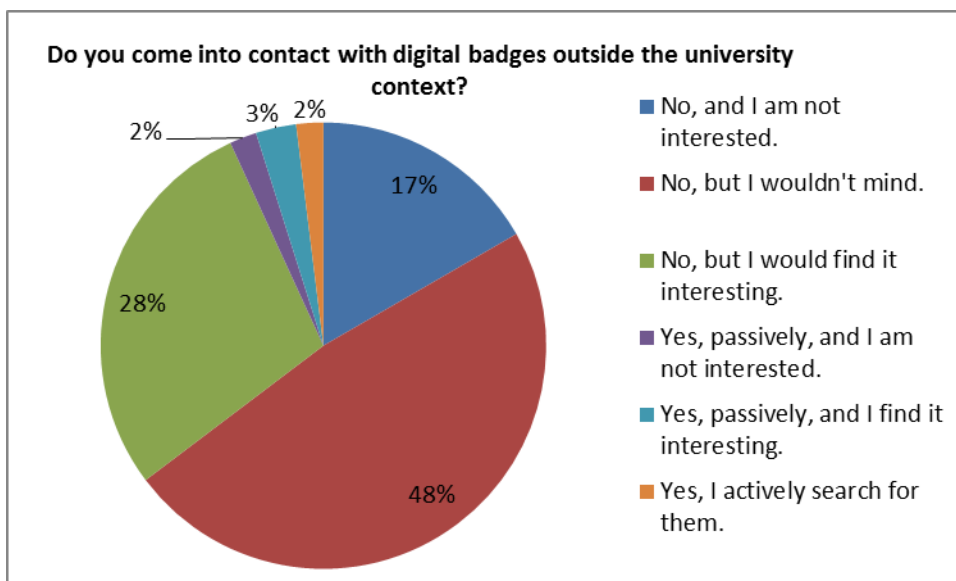


Fig.7

- d) 49 Master degree students of the Transport faculty were offered the following 3 options for fulfilling the credit requirements of their English language course: writing the abstract of their MA thesis, participating in the series of videoconferencing sessions with a foreign university, mini-presentation of one's own language learning history using digital badges exported outside the Moodle environment which was structured according to the above mentioned three basic functions of portfolio (diagnostic, self-reviewing, planning). Out of the whole group, 13 students decided to choose the third option, thus demonstrating the potential of the use of digital badges for self-presentation purposes. The questionnaire revealed that the main reason why most of these students (9 out of 13) opted for this assignment was that they perceived it as an achievable task adequate to their current level of English language competence in the area of spoken production. The majority of them (8 students) labelled it as a useful task. Besides, the enthusiasm and creativity demonstrated by the students "on-task" clearly revealed the power of digital badges both for self-presentation purposes and also in the area of stimulating the students' reflection of specific aspects of their professional growth, thus contributing significantly to the development of some of the essential skills expected from university-educated professionals in the digital era.

## 5. Conclusion

Our current experience with the implementation of digital badges into university language courses shows that they certainly represent a powerful tool of facilitating language learning processes, and at the same time, they provide a very inspiring means of certification of language learning achievements. Besides, their meaningful use as an integrating principle of the language course proved to have a significantly positive influence on the organisation of various kinds of learning experience both from the perspective of a teacher and a student.

Since our piloting project covers two essential areas explicitly defined within the set of key competencies for lifelong learning, namely communication in foreign languages and digital competence, the next logical step could be perceived in extending the scope of this project towards other areas of university education. The cross-curricular nature of the field of language education certainly demonstrates a huge potential for spreading "good practices", thus triggering the process aimed at making digital badges an integral part of the educational system.

## References

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