

Karuchā Ships Invaders: Cultural Issues on the Design/Development of a Japanese CALL Game made by/to Brazilians

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Abstract—The crescent use of computational resources for supporting learning, including the language learning field, is taking place for Computer Assisted Language Learning (CALL), and related to this, there is the growing use of games for educational purposes, also including language learning, and it is known that this is an approach that shows significant results in the learning process. This paper presents a study about the design and development of a CALL game to teach Japanese language by/for Brazilians taking into consideration the cultural issues of both – Japan and Brazil – countries and their impact over the interface/interaction features of the CALL game developed called Karuchā Ships Invaders.

Keywords—*japan; culture; edutainment; gamification; hiragana; roma-ji.*

I. INTRODUCTION

The use of technological resources is present in most of the daily activities, and it is not different in the educational domain. These resources are being largely used informally for helping language learning in several contexts, this is called Technology Enhanced Language Learning (TELL), and it encompasses the use of computational tools for the same purpose, in literature called Computer Assisted Language Learning (CALL). Furthermore, there is the rising of educational games bringing a new way to study manifold themes, the so called gamification [16]. Gamification is basically to use game design elements in non-gaming contexts [1], to bring out motivational factors that are usually applied on games, to another activities, with the goal of arousing people to practice what would be boring activities, just for the enjoyment of doing that. Once these motivating factors are put in the context, and the tasks can become rewarding, it can cause positive effect on the user.

An interesting approach about educational games is edutainment – i.e. education + entertainment –, which is to mask the educational piece of the tool with fun, sometimes with gamified learning activities, to make the learning to be a consequence of playing a game. Language learning is also included in the field of edutainment and gamification, in the

attempt of making the process of learning a new language to be a pleasant activity for the student. In this context, for example, Pereira et al. [13] present a game for helping children learn Portuguese language.

Japan is an island nation located in the Asian continent, which is, in culture ways, very different from occidental countries, as Brazil. Its language is the Japanese, a language that owns a lot of particularities: it has three main alphabets, being two of them syllabics, i.e. hiragana and katakana (which together can be called kana), and the kanji, which are logographic characters adopted from China, and they also use roma-ji – Latin script – in some cases, for example, imported acronyms. This characteristic itself already defines a challenge and/or a barrier for occidental people that aim to learn about Japanese language. From the three main alphabets, the most important and basic to know is hiragana. Hiragana characters are the first taught in school for little children; furthermore, it is the most used alphabet: for words that do not have kanji, for adjective and verb endings, and also used for identify readings of unknown kanji, being inserted little hiragana letters by its side (in this case, called furigana).

In previous works, we presented the state of the art of Japanese CALL tools which have been developed in the academic environment [9], the state of the practice of Japanese CALL web tools [10], and the state of the practice of Japanese Android MALL apps [11]. All these works brought questions that needed to be answered about Japanese CALL, and an important axis that remained unexplored is Japanese culture – and what is the importance of that influence on the design/development of a CALL tool – in the sense of providing improvement on the learning experience by giving the user a more immersive environment related to the target language. It was also perceived with these works that, in general, games for helping Japanese language learning are scarce, specially for native Portuguese speakers; and still, this kind of game usually do not take into consideration cultural aspects of the involved countries.

This work introduces a CALL game directed to Japanese language learning, considering some aspects of the Japanese