Japanese Grammar Tool and Database

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Creating a useable database required a lot more work than I originally expected. While we completed a major part of the project, the creation of the database, the coding and formatting of the tool was simply beyond the scale we could handle. However, in our attempts to code and make our database useful to all levels of learners, we made something truly awesome. We have created the most expansive, popular Japanese grammar database on the internet for Japanese language learners. Eventually, we hope to be able to make this a mobile app and allow more people to search and understand Japanese grammar form and function.

In order to properly make and sort our database we had to overcome a number of obstacles. The main obstacles were firstly, compiling the necessary databases to parse Japanese script. Secondly, sort them via ‘tags’ or markers that indicate what each word is and how it is used, allowing us to categorize each word in the Japanese lexicon, as well as their forms into sections that are easily understood and simply searchable by the user. Thirdly, write detailed descriptions of each grammar point indicating how it can and cannot be used, as well as example sentences and translations.

Ideally, the user should be able to input any word, or string of words, into a search bar and have it return the matching words in both English and Japanese via these tags. Then, upon selecting the intended result, have the tool route the user to the appropriate page where the user can read the description and example sentences.

With the help of Dr. Moody, we were able categorize the words into their proper sections. This was not without its problems. Japanese adjectives, for example, do not obey the same definitions in function as English adjectives. Also, there were many miss-matched words. Words like the English adjective “different” correlate to a verb in Japanese. This cross connection and clerical categorization lead us to make executive decisions that would heavily impact the user experience. Other major choices were made in creating the descriptions of each of the items characterized as ‘grammar points.’ Words that are equivalent to English’s ‘the,’ ‘how,’ ‘for,’ and, ‘by’ would require a breakdown of how to use the Japanese grammar point. These descriptions had to be simple enough to understand and scholarly enough to allow in-depth understanding of even the most fundamental points. We were advised to also include example sentences in both English and Japanese (both the simplified phonetic script and the complex full character script) for context. This allowed us to circumvent the over-simplification of direct translations that often miss the mark.

Another major issue we faced, was the astronomical task of taking the already developed databanks of words and reorganizing them into a single cohesive bank. Many of these databanks had different terminologies and unique ‘tagging’ systems, of which we had to individually research in order to make the unified database. This was made even more difficult by the shear amount of words, copies, redundancies, new words, terms, and spreadsheets that had to be prepared in such a way that coders, or myself could accurately implement it. Not to mention we also had to then rework our entire self-made grammar database into that format. This cost us valuable time and resources. Systems we were instructed would work, failed us because of the complex nature of the content. Simply put, programmers know their coding languages but are often stumped by Japanese.

Through the ORCA grant, we were able to compile, consolidate, and complete the most up to date grammar dictionary out there. With literally millions of entries. I also was able to learn many front-end or
design/user experience (called UI or UX) skills necessary to complete our project. However, we made a major mistake in under-estimating how much there was to learn with coding our app, and when we tried to make a minimum viable product, quickly ran out of funding. This caused us to put the second part, the programming part, on hold. Essentially, coding is very expensive.

Despite this major setback and the need for more funds down the line, were able to complete the design and usability templates ourselves, that would be used by back-end developers to complete the project. This is like having the visual outline completed and the back end ready but needing the code to finally stitch them together to make the working tool. This process and design/template required a number of iterations and testing them via online volunteers and consumer feedback. This also included other new research types such as: cardsorts, A/B testing, observations, and other usability tests.

While the tool is still one step away from a testable beta, we have still succeeded in creating the database. This monumental project will hopefully be finished when we can earn enough money to finish the coding/programming process. We are currently working and speaking with investors to continue efforts on this very important project.

We have already had meeting with the language development department at the Missionary Training Center and they have expressed major interest in your project. We have also been contacted by the people at Outlier Dictionary, Outlier runs the most comprehensive Kanji dictionary (Japanese Characters) for a potential collaboration on the project. Outlier has previous success in obtaining hundreds of thousands of dollars via Kickstarter campaigns and has extensive Japanese language learning tools. Due to the generous funding of ORCA we have been able to make these connections and hope to create a fully functioning grammar database as an APP in the future. This Grammar Database and Tool will break down and explain Japanese language in a way that the world has not had access to at this point in time.

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