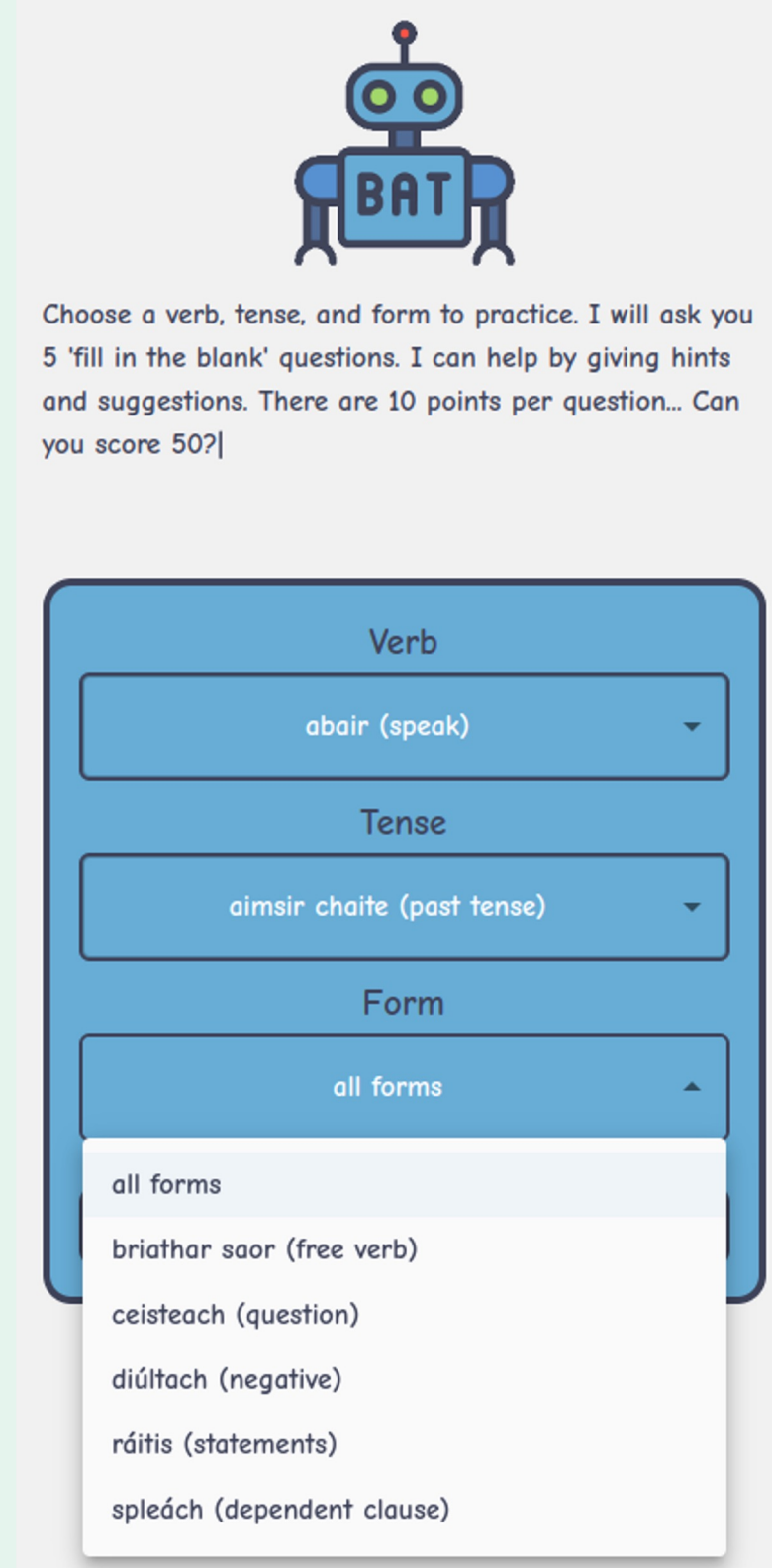


Neasa Ní Chiaráin, John Sloan, Madeleine Comtois, Harald Berthelsen,
Neimhin Robinson Gunning, Oisín Nolan, Oscar Maharg Bravo

Goals

- Create an intelligent tutoring system where specific grammatical forms can be intensively drilled in an attractive, familiar, gamified environment.
- Provide corrective feedback to encourage, rather than deter, deepen engagement and learning.
- Make salient key aspects of the language in the core functionality.
- Integrate with existing Irish educational platforms in the ABAIR ecosystem.
- Enable contributors with limited programming experience to make meaningful contributions to the project.

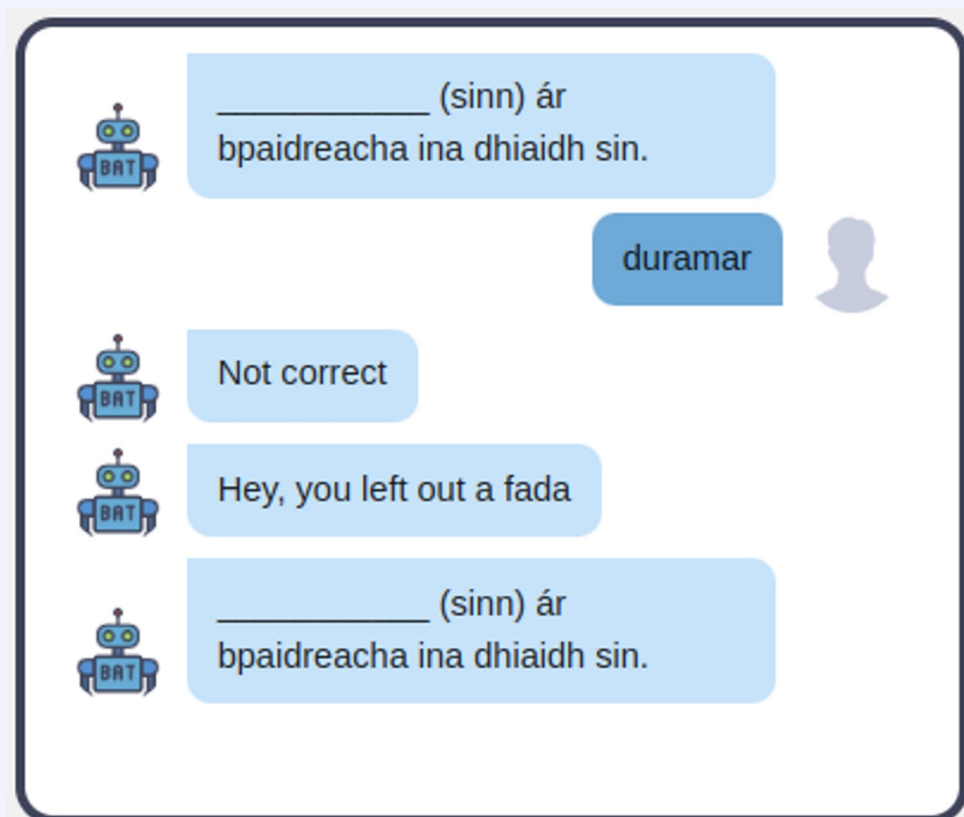
Targeted Practice



- An Bat Mírialta is designed to help Irish language learners master the 11 irregular verbs of the language.
- A bank of 2400 *fill-in-the-blank* questions cover all possible combinations of 11 verbs, 4 tenses, and 6 forms.
- Learners may select, or be given, specific combinations to practise.
- The 'Bat' initiates a chat, where 5 questions are asked.
- A history of previous chats with score and verb-tense-form combination is also provided.

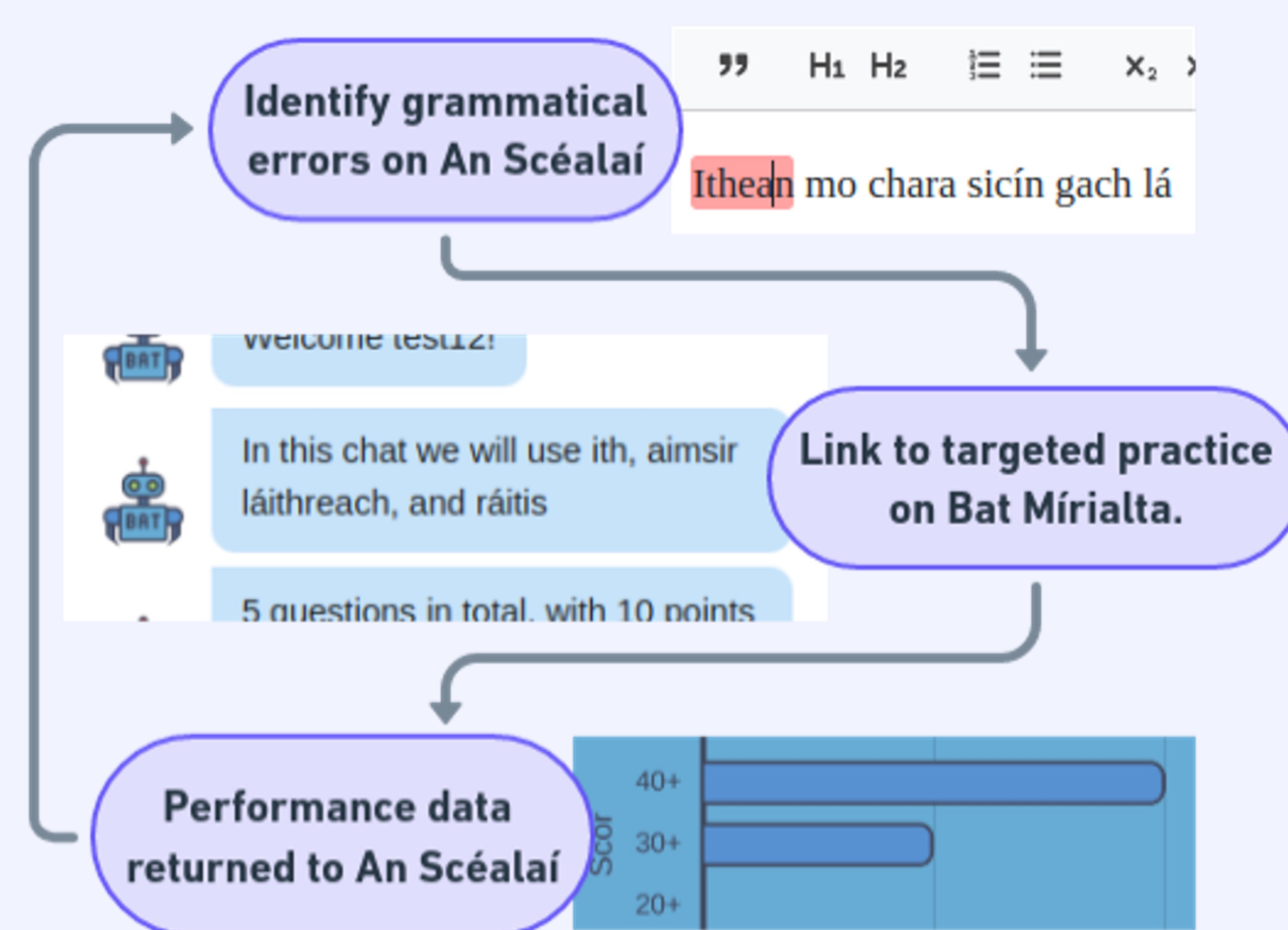


Corrective Feedback



- An error-checker on the back end compares input to the target and provides prompts to nudge the learner toward the correct response.

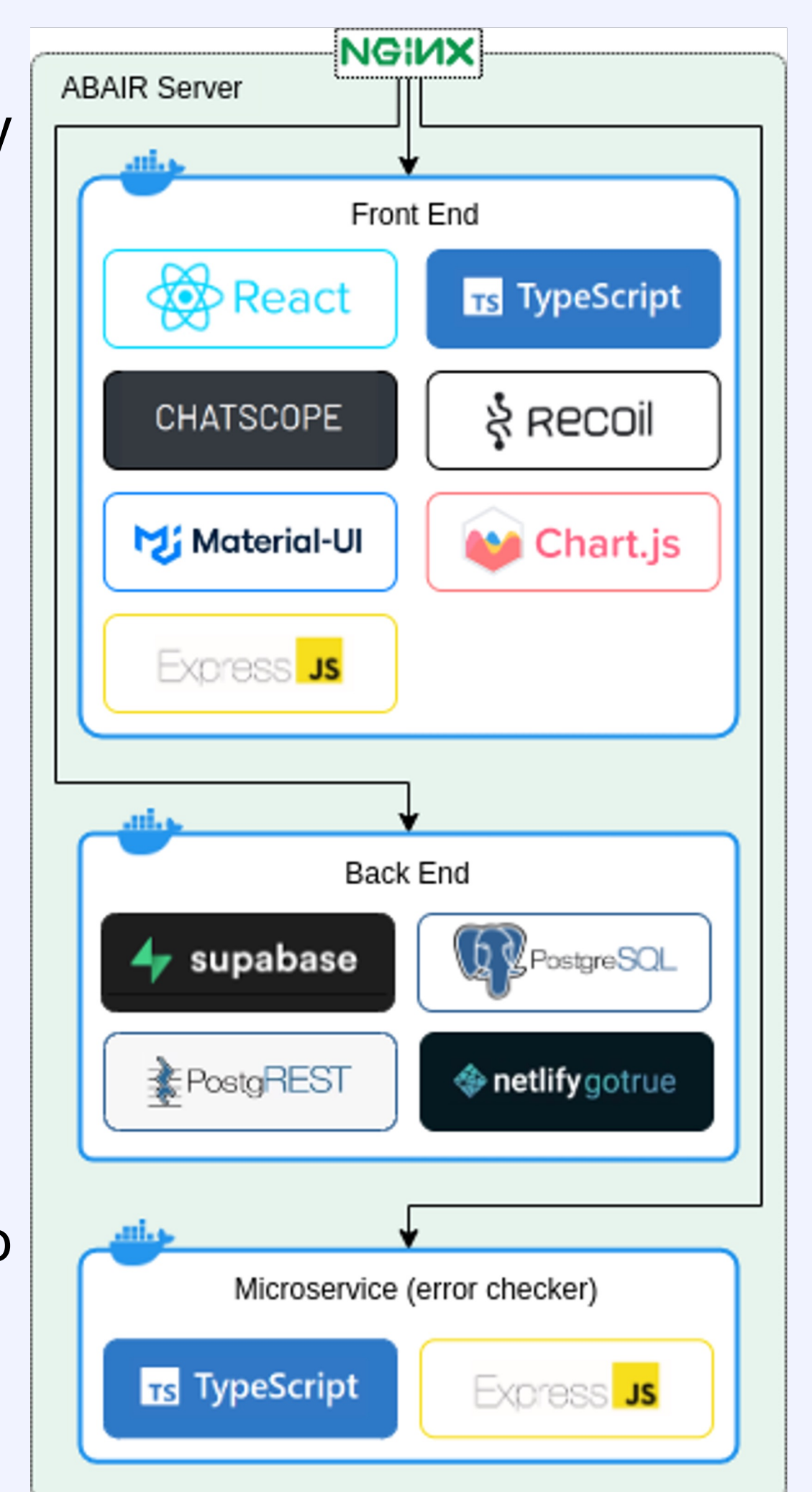
Integration With An Scéalaí



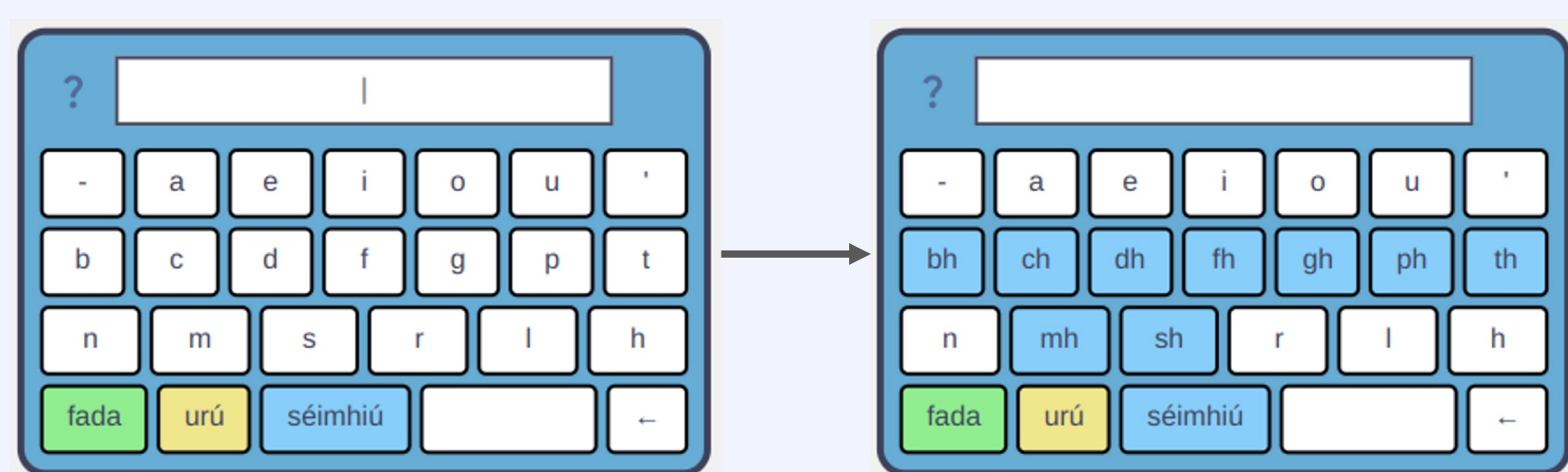
- The An Scéalaí platform allows learners to create stories in Irish while receiving real-time, automated grammatical feedback.
- Frequent errors will prompt a link to the relevant task on Bat Mírialta.
- Feedback from the tasks completed and performance will then be returned to An Scéalaí.

Development Experience

- As a low-resource language, university students often become significant software creators and contributors.
- Keeping the entry barrier to contribution low has been a major consideration.
- The tech stack chosen is kept to a small number of modern, widespread, easy to learn and well-documented technologies.



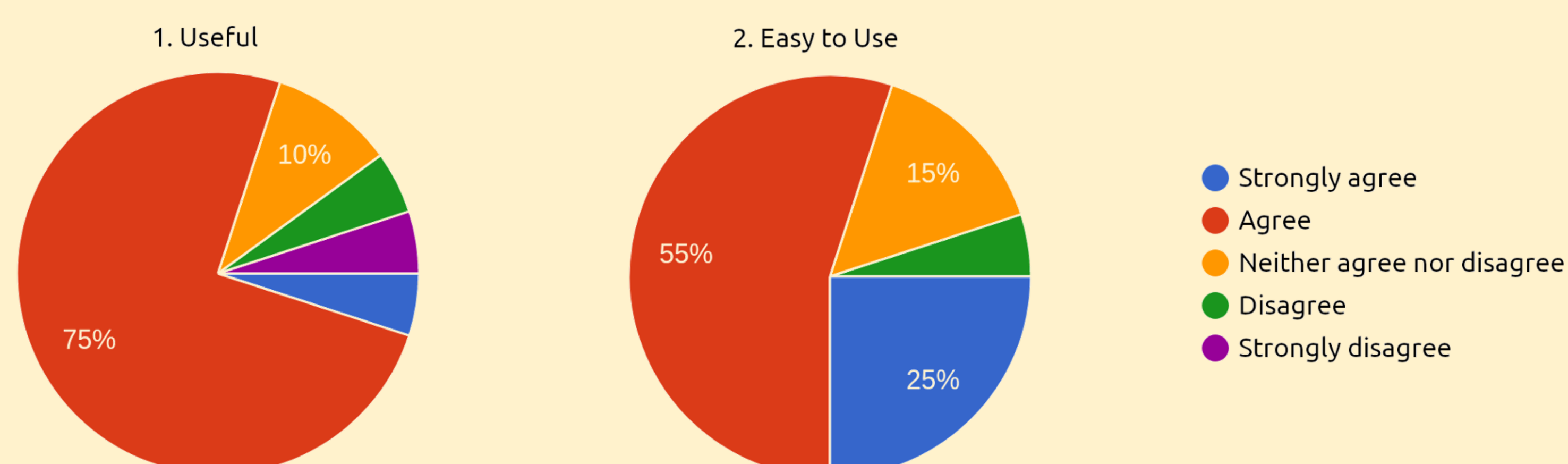
Salient Linguistic Information



- Inbuilt keyboard functionality allows input of Irish's initial consonant mutations and vowel length changes.

Prototype User Study

- Twenty first-year university students, studying to be primary school teachers, were recruited (mean age 19).
- Spent 30 minutes testing the prototype of An Bat Mírialta and providing feedback on their experience via a short usability questionnaire.
- Initial feedback on the system largely positive.



Future Work

- Utilise feedback from the prototype study to improve the user experience and learning outcomes.
- Embed speech technologies (recognition and synthesis) into the platform.
- Add dictionary functionality to allow lookup of unknown words in the chat.
- Integrate with An Scéalaí as described above.
- Perform a larger scale usability test with these additions.