Cipher - Faoi Gheasa: An Adaptive Game for Irish Language Learning

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Irish learning Challenges

- Complex socio-cultural problems
- No utilitarian value
- Teachers are not native speakers
- Orthography
- Morphologically complex language
- Lack of digital resources

Proposed Solution

- Digital game-based language learning
- NLP
- CALL

Digital game-based learning as a bridge between NLP and CALL

Popular game-based language learning examples:

Game Design

Language tasks:
- Noticing
- Reading
- Writing

Game theme:
- Irish Mythology
- Reconnecting to the spirit of the language

User Experience Study

1 primary school, 9 classes, 150+ students, 64 survey responses

<table>
<thead>
<tr>
<th>Question</th>
<th>Satisfaction (n = 64) positive (percentage)</th>
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</thead>
<tbody>
<tr>
<td>Did you like playing the game?</td>
<td>71.9% (n=46)</td>
</tr>
<tr>
<td>How willing were you to play the game?</td>
<td>73.5% (n=47)</td>
</tr>
<tr>
<td>Would you like to play the game more often?</td>
<td>62.5% (n=40)</td>
</tr>
<tr>
<td>What do you think about learning Irish through the game?</td>
<td>62.5% (n=40)</td>
</tr>
<tr>
<td>How willing were you to read the stories in the game?</td>
<td>59.4% (n=38)</td>
</tr>
<tr>
<td>How would you compare learning or reading Irish through the game to normal classroom teaching?</td>
<td>73.5% (n=47)</td>
</tr>
<tr>
<td>Do you think you learned anything while playing the game?</td>
<td>51.6% (n=33)</td>
</tr>
<tr>
<td>What do you think of spells (ciphers) in the game?</td>
<td>68.8% (n=44)</td>
</tr>
<tr>
<td>What do you think of the Irish stories in the game?</td>
<td>60.9% (n=39)</td>
</tr>
</tbody>
</table>

Proportion of participants’ ratings in terms of gaming experience, learning experience and adaptivity