

**THE ROLE OF BILINGUALISM IN THE REVIVAL OF A DEAD LANGUAGE:
MANX IN ISLE OF MAN**

C.P. Kariyapperuma* and K.P. De Silva

*Research and Development Centre for Mathematical Modeling, Department of Mathematics,
Faculty of Science, University of Colombo, Sri Lanka*

*2018s17093@stu.cmb.ac.lk

The survival of many languages in the modern world is at risk due to the quick pace of globalisation and the dominance of a few languages. To explain language dynamics in the context of the aforementioned problem, the academic community has used mathematical models. In particular, the literature has attempted to explain the disappearance of languages like Manx, Celtic, Gaelic, Welsh, and Quechua by focusing on how more advantageous languages draw people and decrease the number of speakers of less advantageous languages. This study focuses on the decline and subsequent revival of the Manx language on the Isle of Man, which was introduced by Irish raiders around AD 500. Historical accounts suggest that the shift from Manx to bilingualism occurred by the early 19th century, and the transition from Manx to English primarily took place throughout the 19th century, with a significant acceleration towards the end of the 19th and beginning of the 20th century. The death of the last native Manx speaker was reported in 1974, causing the extinction of the informal transmission ways of the Manx language. However, efforts were made to revive the language in schools and educational institutions, leading to Manx being categorised as a revitalised language. To understand this scenario, the study employs a three-dimensional language model proposed in a previous work that incorporates the concept of bilingualism in a well-mixed bilingual society. The model was tested on the real-world data of the population fractions speaking Manx from 1901 to 1974. The results suggested that a 'hidden' bilingual minority (speaking both Manx and English) must have persisted despite the declared extinction of Manx in 1974, possibly due to the stigma attached to speaking the language. This bilingual minority may have contributed to the recent revival of Manx.

Keywords: Differential equations, Language competition, Language death, Manx, Revitalised language