Komponiranje in števila

Povzetek
Raziskovalna naloga povezuje dve področji, matematiko in glasbo, saj se posveča procesu pisanja skladb z upoštevanjem osnovnošolskega znanja o vzorcih. Rezultat raziskovalne naloge je predstavljen z enoglasno ter dvoglasno skladbo. V teoretičnem delu naloge sva se opirala na glasbene osnove harmonije, ki so usmerjale komponiranje enoglasne in dvoglasne skladbe. Glasba se je komponirala na osnovi preprostega številskega vzorca s pomočjo naključnega poteka melodije, ki sva jo na začetku s črtami ponazorila na listu papirja. Pred komponiranjem obeh skladb sva postavila pravila, ki sva jih upoštevala. Glasbo sva komponirala s pisanjem na roke (kjer je bil zato prisoten tudi subjektivni vpliv) in nato v izogib subjektivnega vpliva s programom Excel. Rezultat komponiranja sva zapisala s programom Musescore.

Raziskovalno vprašanje: Ali lahko komponiramo poslušljivo glasbo samo z uporabo preprostih vzorcev?

Hipoteza: Glasbo lahko komponiramo samo z uporabo preprostih vzorcev.

Ključne besede: matematika, glasba, vzorci, zaporedja, naključna števila, skladanje

Summary
The research paper connects two fields, music and mathematics, and explores the process of composing music by using primary school knowledge on patterns. The result of the study is presented in the form of a one-part music score and a two-part music score. The theoretic part of the paper is based on the fundamentals of harmony which guided the composition of the one-part and two-part music scores. The music was composed on the basis of a simple pattern decided by chance and previously outlined using lines on paper. Before starting to compose, we set clear rules for the compositions. The music was composed first by handwriting (where a clear subjective impact was felt) and then by using the Excel programme to avoid any subjective influence. The results of the composition was written in Musescore programme.

Research question: Can listenable music be composed only by using simple patterns?

Hypothesis: Music can be composed only by using simple patterns.

Key words: mathematics, music, patterns, sequences, chance numbers, composition