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Understanding the Challenges for Adult Beginners at Piano Practice from an Analysis of Errors

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Abstract

Adult beginners at piano playing tend to have positive characteristics related to learning, such as being analytical, goal-oriented, and attentive. While some adult beginners face the need to acquire performance skills, for example, in teacher training, some people learn to play the piano just as a hobby. From an educational standpoint, it is important to understand the tendencies of their errors in playing and how these errors can be reduced over time with practice.

The purpose of this research was to investigate the types of errors that adult beginners at piano playing experienced during their practice time and how they improved their performance. Eight adults (M = 6, F=2; mean age = 42.5 years), who were beginners at keyboard playing, participated in an experimental study. All the participants were given a sheet, with music newly composed for this study, and asked to practice it for three minutes on an electric piano (Yamaha Digital Piano P-125) after watching a demo. After the three-minute practice, each participant was asked to perform the piece once from the beginning to the end. A set of three minutes of practice followed by a performance was repeated five times. After all sessions, each participant took part in a semi-structured interview. All performance data, including practices, were recorded with two cameras set at different angles, and exported as MIDI audio data. Audio and video data were analyzed and the errors identified were categorized into three types: beat interruption, rhythm errors, and pitch errors.

The data revealed that errors of beat interruption were most frequent among all types of errors and remained up to the final stage of practice. The distribution of decreased errors was not always linear, but was highly likely to be graphically presented as a zig-zag line with over-adaptation and self-regulated processes. The interview data indicated that adult learners had different strategies and priorities for playing. The results showed that some new processes learned could temporally interfere with other parts of playing, and a certain amount of time is needed to assimilate what they achieved. The study also suggested that understanding the learners' individual needs during their practices could be crucial, as well as support for practice strategies.