A Method for Studying Music Practice: SYMP (Study Your Music Practice)

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**BACKGROUND & AIMS**

- Learning to play new music provides a natural laboratory for studying the development of the complex motor and mental skills required for music performance.
- Empirical observation of practice has been successfully used to test the application of psychological theories of expert memory, problem solving, and motor control to the domain of music (Chaffin & Logan, 2006).
- To facilitate empirical study of music practice, we have created SYMP (in Microsoft Excel 2007) to summarize music practice that has been previously recorded on audio or videotape.
- The program allows a person to transcribe music practice and readily obtain graphic summaries and statistics showing how practice was organized and which passages and difficulties were a focus of attention.
- SYMP differs from other transcription tools for music (SCRIBE) or language (e.g., ELAN) in that the data can be more flexibly reviewed by measure or beat, musical structure, type of practice, start/stops, practice segments, etc., with graphical representations as well as raw data for direct analysis with statistical software (e.g., SPSS, SYSTAT, MATLAB).

**IMPLICATIONS**

- By helping musicians to study themselves, as well as their colleagues and students, we hope to learn more about what musicians actually do when they practice.
- We expect that empirical study of music practice will lead to strategies for making practice more effective and rewarding, and less frustrating and time consuming.

**REFERENCES**


**USING SYMP**

**General Layout:** SYMP contains 5 modules. The first module is where the data from the practice and from the music is entered. The other 4 modules provide a graphical representation of the musician's data and summary statistics for the researcher. The data used below for illustration is from Chaffin, Lisboa, Logan and Begosh (2009).

**Step 1:** The Performer/Researcher inputs data for each practice segment (uninterrupted playing of the piece): Start and end times (green columns), and the bar where playing starts and stops (yellow columns). S/he can also enter additional information about the practice, e.g., which hand(s) were used, whether the score was open (red columns). The blue columns are auto-generated based on the data from the previous columns and from the data collected in Step 2.

**Step 2:** The Performer/Researcher inputs information about the musical structure of the piece and the musician's decisions about technique, interpretation, and performance. A “1” indicates that it is absent. This information will later be related to the information from Step 1 about how the musician practiced.

**Step 3:** The Performer/Researcher receives a summary of the data in graphical form. The graphs show how the user can track changes across sessions for: practice tempo, amount of time practiced, number of measures played overall, and from memory. (The charts for Step 3 are sample data.)

**Step 4:** Performer/Researcher selects which session(s) s/he would like to see in the graphs in Steps 6-8 by entering the session number(s) in the generated table, e.g. session 15.

**Step 5:** The Performer/Researcher chooses one of the musical features or cues entered in Step 1 by entering a “1” next to it in an auto-generated table.

**Step 6:** The Performer/Researcher can see which measures were practiced in each session. The bars read from bottom to top with each blue line representing continuous playing of the corresponding measures. The features/cues selected in Step 5 are overlaid as vertical green lines. The example shows a musician practicing a piece in sections and then playing through without stopping.

**Step 7:** The Performer/Researcher can ask to see where playing started and stopped in one or more practice sessions. This allows him/her to examine how starts and stops relate to the features or cues selected in Step 5.

**Step 8:** This graph shows the number of times each measure was repeated. This can also include one or more practice sessions. It allows the Performer/Researcher to examine how repetitions relate to the features or cues selected in Step 5.

For more information or to download SYMP: [psyclabs/musiclab.html](http://psyclabs.musiclab.html)