

Effective Practice Techniques

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Utah Valley Chapter AGO

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Three stages of skill acquisition

1. Cognitive. (Factual) Use existing knowledge to address a piece of music.
 - Where should the congregation breathe on this verse?
 - What fingering should I use here?
2. Associative. (Procedural) Repeat the physical movements (fingers, feet, changing manuals, pulling stops).
 - What most people mean by practice.
 - The repetitions usually increase in speed.
3. Autonomous. (Fluent) Play without conscious attention to every detail: autopilot.
(Fitts and Posner 1967)

The associative stage is **programming the autopilot**.

Standard practice advice	Connection to the skill acquisition stages
Break it up and slow it down.	Play with no mistakes to build procedural habits
Play through a piece only one or two times to find problem areas.	This is working in the cognitive area. If you play through more times, then you are in the associative stage and are programming the autopilot with mistakes.
If you make a mistake, do something to prevent it: mark the accidental, write in fingering or pedaling or counting, etc.	This is moving back from the associative stage to the cognitive stage, preventing the autopilot from incorporating the mistake.
Mark everything: fingering, pedaling, etc.	Most of us do not have time to get to autopilot for weekly church meetings: hymns, preludes, postludes. Mark <i>everything</i> so you do not have to remember. Marking is also useful for when you return to a hymn (or other piece): You can skip cognitive, and go from associative to autonomous more quickly.
Practice everything: walking out, getting on the bench, hitting pistons, etc.	Practice all aspects of performing: introducing pieces, no stopping, etc., so they are all at least in the associative stage.
You will perform exactly as you practice, except worse.	Get as much as possible into the autopilot for performance, because we need extra cognitive resources for the public performance. If you have to remember a lot of things, then you will not remember some of them when you perform. You must either write them down or get them to autopilot.
Amateurs practice until they get it right; professionals practice until they can't get it wrong.	Amateurs get to the associative stage; professionals get to the autonomous stage. This is why it seems like professionals perform effortlessly: Professionals are on autopilot, and can respond to other performers, audience attention, etc.

Deliberate practice: “goal setting, error detection, and real-time strategizing to make specific improvements” (Woody 2014).

Spread out your practice times whenever possible (difficult if organ is at distant church):

- Distributed practice (four half-hour sessions) is better than massed practice (two hours all at once).

Practice off the bench: let your subconscious work for you

- Study the music (and text)
- Listen to recordings (at home, in the car)
- Visualization (mental rehearsal)
- Set goals for the week, month, year

Effective practice sessions

Plan your practice: set specific goals for session, warm up mentally, include breaks

What should I practice?

“Deliberate practice involves two kinds of learning: improving the skills you already have and extending the reach and range of your skills” (Ericsson, Prietula, and Cokely 2007, 4).

Skills you (may) already have:

- Hymns
- Preludes and postludes
- Choir accompaniment
- Classical repertoire (funerals, special musical numbers, concerts)
- Sight-reading (last-minute hymn addition)
- Improvisation (extending prelude, finishing sacrament hymn)

Extending skills:

- Techniques (thumb glissandos, pedal scales, etc.)
- Interludes
- Memorization
- Transposition
- Etc.

Take a few moments at the end to evaluate your practice.

- Keep a log of your practice: accountability
- How did you do in your goals? What is your goal next practice session?
- How would you change your practice?

Effective practice strategies for a piece of music

Learning a piece: Break it up and slow it down.

- Break up the piece into smaller sections (and even subsections). Start at the last section and work backwards (or start at the most difficult section).
- Within each section, practice each hand alone (or even, each voice alone) and feet alone with a metronome. Find a tempo (however slow) where there are no mistakes. Then speed up gradually.
- Then put two units together (hands together, LH and pedal, RH and pedal) with a metronome, starting slower and speeding up.
- Then put all three units together at a slow tempo with a metronome and speed up to performance tempo (or faster).
- The metronome keeps you honest, and allows you to see your progress. Each increase in speed keeps you out of the autonomous stage and keeps you in the associative stage.

Although we are amateurs, we can practice like professionals:

- Become your own teacher: Record yourself (and treat yourself like a student).
- Study the music (and text).
- Incorporate expressiveness from the start (put it into the autopilot).
- Listen to other performances of the piece.
- Practice etudes/exercises that emphasize techniques required for the piece
- Know your weaknesses: What are your most common errors (note accuracy on accidentals, rhythm, voice independence, consistent pulse, etc.)? Fix them early.
- Mental rehearsal (visualization).

If you want to be an accomplished performer, you must be an accomplished practicer: You will perform the way you practice: expressively, positively, with spontaneity, ease, and focus. Practice that way to put it all into the autopilot.

Avoid vain repetitions: playing through repeatedly is *not* practicing

- Do not play exactly the same way 10 times in a row
- Do some slight (or large) variations: change articulation, fatten the tone, etc.
- Practice relaxing during difficult passages: breathe out, relax shoulders, etc., so when you are playing it, you unconsciously relax as you play a difficult passage (Kraus 2012).
- Once you are on autopilot, you cannot get better, so you must improve before getting there, or get out of autopilot.

Different modes of playing:

- Practice mode: stop and fix mistakes
- Performance mode: do not stop

Practice performing

An Empirical Test

As 17 piano majors learned the same difficult passage, researchers observed their practice techniques (no time limit) and later recorded their performance for evaluation.

Better performers:

- “Playing was hands-together early in practice.
- Practice was with inflection early on; the initial conceptualization of the music was with inflection.
- Practice was thoughtful, as evidenced by silent pauses while looking at the music, singing/humming, making notes on the page, or expressing verbal “ah-ha”s.
- Errors were preempted by stopping in anticipation of mistakes.
- Errors were addressed immediately when they appeared.”

Best performers had (and poor performers did not have):

- “The precise location and source of each error was identified accurately, rehearsed, and corrected.
- Tempo of individual performance trials was varied systematically; logically understandable changes in tempo occurred between trials (e.g. slowed things down to get tricky sections correct; or speeded things up to test themselves, but not too much).
- Target passages were repeated until the error was corrected and the passage was stabilized, as evidenced by the error’s absence in subsequent trials.”

What did not matter:

- Practicing longer
- More repetitions
- Number of times played correctly (but percentage of correct practice did matter)
(Duke, Simmons, and Cash 2009 [summarized in Kageyama 2015])

Summary

What does academic research say about effective practice?

- “Learners need to possess a repertory of well-defined practice strategies.
- Learners should approach practice consciously, and it should be planned.
- Learners should develop a list of expressive and technical tasks that they address systematically in each practice session.
- Learners should develop their ability to evaluate and monitor what they do.
- Learners should be as specific as possible when practicing.
- Learners should start to think of practice as a broader concept that does not solely consist of motor practice but includes a multitude of tasks.”

(Lehmann and Jørgensen 2012, 687-688)

Annotated References

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Current practice:

Future practice: