

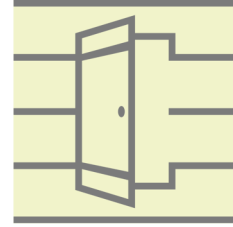
Motor learning for musicians
Theory and practice
Royal Conservatorium The Hague 06.03.2018
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The staff of the Royal Conservatoire, The Hague, who did the staff development program in 2018 were presented with current motor learning theories including *The Theory of Implicit Motor Learning* (Rich Masters), *The OPTIMAL Theory of Motor Learning* (Wulf and Lewthwaite) and *Flow Theory* (Mihaly Csikszentmihalyi).

Break out groups were formed to discuss elements of the theory and asked, "What would this theoretical concept mean for your teaching?" "Do you recognise it?" and "What would be applications in your lessons?"

The insights listed in implications & applications on the following pages are a result of the group brainstorming and discussions.

IMPLICIT MOTOR LEARNING



Motor learning is best learned implicitly – without too much verbal instruction: a procedural (learning through doing) process rather than a declarative (learning through conscious understanding) one.

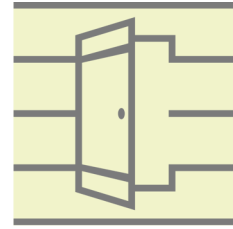
Cognitive load theory: The brain has limited capacity. One can focus intensely for around 20 minutes at a time. Too much verbal information at once, too much sensory input, unexpected occurrences or multitasking can result in cognitive overload. Practicing (and learning in general) could be more a matter of managing cognitive load than what methods or strategies are being used.

Implications & applications

- Learning through modelling: the teacher plays for or with the student
- Trusting the process rather than looking for immediate results
- Encourage exploration and free music- making: 'perfection' is not the goal
- Check if the task is too complex or stressful and find strategies to be in the task
- Avoid verbal and technical instructions
- Look for musical and expressive terms & concepts rather than technical ones
- Encourage students to experiment, improvise and play variations
- Look for ways to be in the senses: touch, hearing, sight and develop rich imagination
- Learn to accept mistakes
- Learn to let go of needing to intellectually understand or control everything

Instead of asking, "How does it work?" a musician needs to ask, "What do I need to do in order for it to work?"

AUTONOMY



The student should have choices. Rather than passively receive instructions, a student needs to develop a sense of agency. Even small or incidental choices have a positive effect on learning. Important to autonomy is students develop self-regulation and intrinsic motivation.

Self-regulation: the ability to set goals, make strategies and reflect on the outcomes.

Intrinsic motivation: playing music becomes its own reward.

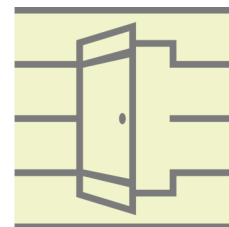
Implications & applications

Ideas on how we can promote autonomy in our students:

- Ask questions
- Limit feedback and let the student lead the feedback
- Encourage students look for their own musical ideas: “how do you want that to sound?”
- Check what the student wants to learn
- Let the student choose repertoire
- Help the student feel ownership of their process and not just focus on the result (or grade)
- Help the student understand why they are learning a particular skill or piece of repertoire
- Ask the student how they practice
- Encourage the student to make recordings and judge themselves
- Wait for a question or insight before giving a quick fix – ask a leading question
- Remind the student s/he is playing for her/him self

Students need to develop agency by realising that they are responsible for their own process and that they have choices. Many individuals want or need some external rules and structure and extrinsic motivation. Self-regulation and self-reflection can be learned.

ENHANCED EXPECTANCIES



A musician's own beliefs and expectancies should be positive in order to learn or perform well. Developing an open mindset and high self-efficacy plays a part, as does success with challenge and positive feedback.

- Open Mindset beliefs: belief in effort vs. talent; enjoying challenge; experiencing mistakes as information
- Closed Mindset beliefs: capacities are fixed; stay in the comfort zone; mistakes are bad; "if I can't do it, I'm not talented"
- Self-efficacy: a person's belief about their ability to learn

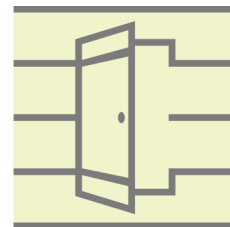
Implications & applications

In order to support the student in their belief that they can learn, we can give the following messages in lessons:

- Point out when something works / goes well
- Build your expertise by choosing challenging but do-able goals
- Learn to enjoy challenge
- The process is the goal
- Give yourself the space to learn
- Find ways to enhance quality learning, listening, imagining and performing
- Find a balance between building self-confidence and finding room for expressive experimentation
- Don't think 'problems' but 'possibilities'
- Mistakes are part of the game – and provide valuable information
- Learn about your own struggle and development through peer learning – by recognising yourself in the other
- Success = a good learning moment
- Confidence comes from recognising your development and is fed by opening your fantasy

The role of the teacher is to help the student choose challenging but achievable goals and to recognise when they are met, leading to an accumulation of 'mastery experiences' resulting in self-confidence and motivation.

EXTERNAL FOCUS



Instructions and feedback need to focus attention on the desired *effect* of the movements rather than on steering, controlling or analysing the individual movements of the body. This involves focusing on the intended goal (i.e. the desired sound or musical intentions) rather than on how. Using external focus allows the intended goal to inform the motor control system to find or refine the movements needed to attain the goal.

Audiation – a form of external focus – involves approaching the music as if it is language. It involves being able to hear music before it is physically present (anticipatory auditory imagery) and having a sense of what it is portraying.

Important to external focus is vividness, detail and clarity.

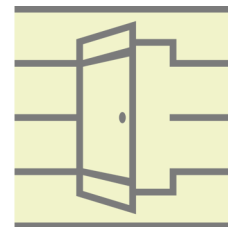
Implications & applications

Teaching students to explore repertoire and skill development is a non-verbal, non-technical way:

- Connect sound and language (communicating meaning & expression)
- Encourage students to practice musical intention: e.g. “What do I want to sound like / say?” “What do I want the listener to feel?”
- Find ways to develop the ability to develop imagination that is vivid, and has complexity and nuance
- Use metaphors and analogies
- Make narratives or invent scenarios or subtexts
- Think of words to go with a phrase to make it more meaningful
- Gesture and sing the music to ‘feel’ its meaning
- Practice variations – vary the entire character of a phrase
- Dancers: focus on fluency, phrasing and expression. Imagine images and metaphors, explore the space and dance ‘musically’ – even when there is no sound present

Encourage students to practice by getting to know more clearly what they want to say, what the audience should feel, what effect they want to make and what emotions are embedded in the music. Notice how clarifying musical intention effects technique.

FLOW



Being in 'flow' is total engagement/immersion in a task: "... being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement and thought follows inevitably from the previous one. Your whole being is involved, and you're using your skills to the utmost."

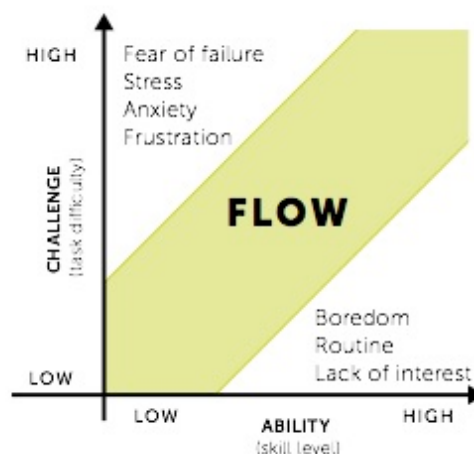
Prerequisites to Flow are:

- Clarity of goals and immediate feedback
- Concentration on a limited field
- Balance of skill and challenge

Balancing skills and challenge

When in flow, challenge and skills are balanced.

Challenge refers to the *perceived* challenge: it is possible to lower the challenge by lowering one's goal or expectations



Implications & applications

Ways and keys to promoting flow in the student and in the lesson:

- Find ways to be totally involved and engaged whilst playing
- Concentrate on sensory awareness
- Look for effortlessness and enjoyment
- Have a clear goal
- Look for flow in teaching
- Find mutual goals when teaching
- Have a moment in the lesson to integrate everything
- Be in the music
- Ask the student about their experiences of flow
- Ask the student interpretive questions
- Find the right expectation to fit the goal
- Mutual inspiration
- Don't think too much
- Develop confidence
- Don't be afraid (of the teacher)

Flow is the ultimate goal. Excellent playing and success are side effects.