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Using Looper As An Alternative Teaching Tool In Traditional Music Improvisation

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Abstract

The aim of the present study was to gather different experiences of using looper as an alternative teaching tool in traditional music improvisation studies and to estimate its effectiveness and usefulness based on the experiences of traditional music students. The main problem of the research is posed as a question: How effective and useful is looper as an alternative teaching tool in traditional music improvisation studies?

Data was gathered in two different ways. Observation diary was kept for action research where throughout study year looper was used in improvisation classes and remarks and observations were made. Additionally, half-structured interviews were conducted with the students. Data from observation diary and interviews was analyzed with qualitative content analysis methods.

Based on the research, students were considering usage of looper useful, although there appeared a connection between students' previous technological knowledge and readiness to use looper as an alternative tool. On the other hand, students with more thorough knowledge about traditional music basics also tended to support the usage of looper in improvisation studies. Students preferred using looper more in individual lessons rather than group classes.

Using looper as an alternative tool for teaching traditional music improvisation is effective if the source of the music is well known for the student and if the usage of looper is balanced. Looper also helps when working with arrangements and individual compositions.

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Keywords: Traditional music improvisation, music technology.

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1. Introduction

Improvisation is an integral part of any music and has therefore become increasingly relevant also in music education. In Estonia it has become a tradition to always include an improvisation or improvised music workshop in the programme of workshops at music festivals (e.g. Viljandi Folk Music Festival, Orient, Jazzkaar and many others). Since 2011 it is possible to acquire a Master's Degree in contemporary improvisation at the Estonian Academy of Music and Theatre.

The present study focuses on the role of improvisation studies in Estonian traditional music at higher education level, more specifically on questions related to the use of looper (a device enabling the recording and playback of musical phrases or adding of "new layers" to an existing phrase). Although several Estonian traditional music artists (e.g. Maarja Nuut) use looper at their concerts and recordings the practical working principles associated with looper have never been included in traditional music curricula. The following subsections give an overview of the two main concepts relevant to this study: improvisation and looper.

1.1. Theoretical framework: on improvisation, its meaning and history

The term improvisation derives from the Latin word improvisus (meaning ‘unexpected’). Moving from the wider meaning of improvisation towards the narrower meaning of musical improvisation we can see that improvisation is understood differently in different cultures and institutions.

Derek Bailey, an English improviser, writes that improvisation in Indian ragas, baroque music as well as in traditional jazz is based on certain structure and a set of rules that include the repetition of particular means of expression. Improvisation is ever changing, regulating, never fixed, too unnoticeable for analysis and proper description – mainly nonacademic (Bailey 1980).

Gary Peters discusses the relative indefinability and ignored position of improvisation as a phenomenon in contemporary arts education. The author believes that the historically established struggle over the relationships of different theories and practices of art should be substituted with systematic models of improvisation. This substitution would reduce the endless debates of theorists and practitioners over the importance and unimportance of opposing fields. Peters sees improvisation as a "liberator" and feels that concentrating on improvisation would prevent many teachers from developing frustration caused by the overly bureaucratic system (Peters 2005).

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Philip Alperson believes that spontaneity, professional skill and the social dimension, i.e., improviser's ability to relate to the surrounding environment are most important in improvisation. He claims that a large part of all composition is created as a result of improvisation. He brings as an example composer and saxophonist John Coltrane's music that was created through improvisation, using many different themes. The author considers risk to be an important factor in improvisation – risk is what gets us out of a seemingly hopeless situation. The freedom to take risks enables us to broaden the constricted frames of opportunities. While speaking about risk the author points out the phenomenon of the error – the ability to use a random human error to serve artistic goals is an indicator of the improviser's skill (Alperson 2010).

A well-known music psychologist John A. Sloboda (2011) compares a composer and an improviser and sees a difference in the existence of restrictions in form. Although composers may get a musical idea spontaneously and in a moment's time the eventual maturing of the work may take years. In improvisation, however, the composer cannot shape or improve the material, the first idea must work. Alperson shares a similar view and claims that in improvisation time and music move in synchrony (Alperson 2010).

V. Pearson claims that free improvisation music cannot be reproduced and played back. Every new performance is a unique event which can at best be archived as a creative process either in the form of a recording or a music journalist's article (Pearson 2010).

Canadian improvisation researcher Augusto Monk in his article "Improvisation: initial steps" has taken a closer look at learning outcomes directly associated with improvisation. He finds that improvisation improves students' decision-making ability, anticipation and structural thinking. Like Peters, Monk emphasizes the importance of developing a general methodology of teaching improvisation. In his method of teaching improvisation an important role is given to the instructor's cues, verbal instructions, rhythmic accuracy and sense of ensemble (Monk 2010). The author places special emphasis on the quality of individual improvisation instruction which shows how well the student relates to other members of the ensemble. Monk's attitude towards the relationship between a metronome and improvisation is relatively novel. He finds that by skillful placing of the metronome on the unstressed part of the bar it can be turned into a member of the ensemble with a musical function. The author believes that this is the only way to achieve rhythmic accuracy (ibid.).

The methods used in improvisation instruction are dependent on a particular field. For example in rhythm and jazz music specially created computer programs that help the musician to develop solo

improvisation, to understand the harmonic structure and form of the composition are widely used (Impro-Visor 2013).

To summarize, it can be said that improvisation is characterized by synchrony of time and music, spontaneity, and improvisation challenges the musician's abilities in every possible aspect.

1.2. Looper: its history, usage and meaning

Looper is a device that enables the user to record musical phrases or loops, to play them back or add new "layers" on top of an existing phrase. With the help of the looper the phrases can be modified, played backwards, substituted, deleted and so on.

Live looping or real-time looping is a playing technique where previously recorded musical material is not used and the musical structure is created in the process of the performance. From this playing technique also the phenomenon called live composing is derived. This phenomenon has sometimes been considered a new musical genre where music is created in real time using a looper. It is important to mention here that such a process of creating music does not necessarily have to be public (Darren 2008).

The original purpose of looping is to repeat musical material and it does not only occur in a performance situation but also in composition, playing practice, improvisation and teaching.

It has been observed that the creative and intellectual sides connected to the use of a looper can be overshadowed by emphasizing the looper's technical data. It is sometimes forgotten that a machine cannot create on its own. Professor of Composition at Indiana University Don Freund warns that excessive trust in computer programs could cause a situation where the computer starts to dictate how music should be created (Freund 2011).

Looper's history began in 1934 when the first magnetic tape recorder was invented by the AEG company. In 1950, an improved and much more stable version of the magnetic tape recorder became available and it was taken into use by French composer Pierre Shaeffer who became famous as the founder of a unique musical movement *musique concrete*. Shaeffer can rightfully be considered the "forefather" of looping technique since for years already he had been conducting compositional experiments with processed vinyl disks that enabled him to create numerous musical loops (Cope 1981).

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Nowadays computer programs specifically designed for looping (Abelton Live, Mobius etc.) that enable the creation of very complicated compositions based on loops are frequently used. The choice of looper depends on the musician's goals in using it. For those who wish to use a looper for practice rather than for composition and performing activities the solutions with a simpler operating system are suitable.

Compared to earlier times the interest in looping technique has shifted from composers towards interpreters. While in the mid-years of the previous century looper was mainly used by composers of experimental and academic music, nowadays it has become popular in practically all musical domains that include improvisation. Classical, rock, hip-hop and jazz artists as well as solo musicians of all genres are using looper (Frompovitch 2010). The use of looper in different musical genres shows that it is a new music technological instrument which is not limited to one style or genre. Understandably, this situation creates questions whether looper can be applied as an alternative teaching tool in modern improvisation studies and this gives rise to the main research question of the present study.

2. Research Questions

The problem of the present study is a question worded as follows: what is the effectiveness of looper as an alternative tool in traditional music improvisation and how does it relate to traditional improvisation methods? To specify the research problem the following research questions were formulated:

1. How useful is the use of looper in traditional music improvisation studies?
2. To what extent should traditional music curriculum include instruction on how to use music technology?
3. What are the dangers associated with use of looper in traditional music?

3. Research Methods

The form of action research was chosen as a method to conduct this study. Action research is based on practical questions and is aimed at promoting professional activity. Action research is cyclic in nature and is suitable for the researcher who wishes to increase her professional knowledge, receive acknowledgement and affirmation for her work. The cyclic framework proposed by Erika Löfström was used as the basis for the phased structure of the action research (Löfström 2011). The phased structure of the present study enabled the new experience to settle, gave time to chart the questions and opinions that emerged during the

research and to plan further activities. The practical course of the action research was supported by regular entries into the action research observation diary which was also one of the data gathering methods.

Half-structured interview was the other method used to gather data. A total of seven interviews were conducted. The interview questionnaire is divided into three equal groups. Each group has a summarizing title that reflects the research questions presented above:

* Improvisation and traditional music
* Music technology and traditional music
* Looper as an alternative teaching tool in traditional music improvisation

The data was analyzed mainly by using the qualitative content analysis method. The characteristics of the observation diary and the data analysis will be described next. Analysis of the observation diary data was based on the subjective reactions and opinions of the students. Qualitative method was complemented by quantitative or numerical method which helped to systematize raw data with similar features.

To evaluate different activities, tasks, and phenomena a three-level scale was used, for example the scale used to measure participation: AK – active, PA- passive, NEUT- neutral; coordination and ergonomic ability in working with looper: V – very good, H – good, R – satisfactory. Summarizing sentences and phrases were used to analyze interview replies where necessary, the main objective being the clear and unambiguous expression of the respondents' reasoning. In order to unify the style of the data analysis a three-level scale and abbreviations similar to the observation diary were used (for example: AK – active, PA - passive, NEUT – neutral etc.).

3.1 Description of the sample

The present action research is based on the improvisation classes for traditional music students taught by the first author Robert Jürjendal during the period from January 2012 to June 2013. Due to the limited number of students an exhaustive sample including five traditional music students on their second year of professional higher education level studies and three Master's programme students was suitable for the action research.

4. Findings

4.1 Results of the observation diary and action research

Students used playing technique, intonation and variational principle characteristic to traditional music when improvising. Students felt most unrestricted when improvising based on specific musical material.

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Improvising on the basis of written material yielded better results than improvising by way of hearing (the musical material was played by the instructor). In case of traditional improvisation students more frequently used *ad libitum* tempo which yielded good results in both solo improvisation and as part of a duo. *Ad libitum* tempo enabled the player to better control the sound of their instrument, the intonation, and to prepare new motif developments. Compared to solo improvisation group improvisation was more uncertain, having intonational problems and lacking ideas.

Improvisation was challenging for the students, putting to the test their resourcefulness, imagination and professional technique. This is in agreement with the different improvisation theories presented in the theoretical section of the paper which all shared the feature of challenging the interpreter's musical ability. Improvisation also brought out the students' ability to react to the situation. Improvising on a known theme had better results and gave players a musical sense of security. In case of group studies it could be noticed that during the improvisation the students spontaneously adopted fellow students' improvisation elements but were at the same time distracted by mistakes made by other players.

Improvisation with looper differed from traditional improvisation by simultaneous occurrence of numerous new circumstances. The students were unused to hearing the sound of their instrument through loudspeakers which set limits to the performance's dynamics and nuances of timbre (the instrument's volume and timbre were dependent on the settings of the mixer console and the quality of the loudspeakers). Most of the students had a problem with dividing their attention which was especially evident in the procedure of turning the looper on and off. This situation affected the content of the improvisation which was lacking in ideas and uncertain especially in the first classes. Students had difficulties with accustoming to the appearance of their "alter ego" in the course of the looping technique. Recording and rehearing their own instruments caused feelings of discomfort and bafflement about rhythmic and intonational errors. Most students found it difficult to relate to a motif recorded in the looper – it seemed musically primitive and was quickly exhausted.

When working with looper students often forgot their previously acquired professional skills and abilities since too much attention was spent of looper-related technique (position of the contact microphone, the player's position in relation to the loudspeakers etc.). The new situation forced the students to concentrate much more on coordination which reduced the free development of musical ideas. With the increase in experience also the purely musical skills of being creative and accurate in a new situation also improved.

The best results when working with looper were yielded by the so-called building technique: the students used their imagination to create complicated musical structures from a simple motif by using looper. Concentrating on one specific means of expression (e.g. rhythmics, harmony) also worked well with looper. It yielded good results in creating polyrhythmic patterns, building chords and accompanying sounds. Using looper in free improvisation enabled new discoveries in timbre and also gave a new function to sounds of no particular pitch (knocks, rustles, grinding etc.). In free improvisation the students gained freedom to use traditional music playing techniques in a new musical context (archaic intonation and timbre, jazz-like rhythmics, harmony characteristic to contemporary music etc.). Free improvisation tasks with looper also facilitated improvisation with a tape (a CD of bird song and nature sounds).

It could be observed that Master's programme students were sufficiently acquainted with music technological devices so that working with looper was not difficult for them. There were some problems with coordination (turning looper on and off by using feet) and keeping an active train of thought during looping. Compared to so-called direct playing looped musical material occasionally started to dominate too much. As a result the recorded loop groundlessly became more important than the improviser's own direct playing. When using looper the player was often in danger of getting caught up in her own thoughts. The systematicness of looper caused problems for several students since the length of a particular loop forced the student to subordinate the entire following musical thinking to that length.

Main outcomes of improvising with looper:

* abrupt increase in self-criticism (students heard their own errors in rhythmics and intonation directly);
* problem with musical feeling of security (total or partial lack of control over one's actions);
* emergence of new ideas and musical thinking; tendency to leave the borders of aesthetics characteristic to traditional music (looper enables the recording of endless musical layers);

* emergence of new challenges; taking into account the peculiarities of the microphone and sound technology and looper as a new instrument.

In the initial stage of using looper the students were relatively passive and in many cases distrustful of using the new method. As they gained experience the passivity gradually diminished and students dared to take more risks with the use of different ideas and techniques. They became more convinced that with sufficient practice looper could become an efficient tool for learning and teaching improvisation. Problems were caused by the fact that due to the lack of personal technical means the students were not able to continue working with looper independently.

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4.2 Results of interview responses

The role of improvisation in traditional music was considered important by all respondents. The need to improvise was explained by claims that traditional instrumental music pieces are often very short and require ingenuity and inventiveness from the performer.

When answering the question what is most important in traditional music improvisation the students named the ability to play variations, getting the audience interested, good knowledge of source material, expression of the musician's true nature and his personal feelings, giving new and original form to archived works. Insufficient knowledge of harmony and inability to use it inventively in improvisation were mentioned as problems. Attitudes towards using improvisation methods that are not common in traditional music were mainly positive but conditional on good knowledge of source material, good taste, awareness of the musicians and trust for the performers.

In connection with including elements from other music styles mainly jazz and rock music were names. On one occasion the use of free improvisation in group improvisation was mentioned. Knowledge of melody and harmony, rhythmic accuracy, well-planned action, staying within the limits of traditional music and not being afraid to make mistakes were named as characteristic features of improvisation in traditional music. As a negative feature the incongruity of jazz improvisation and traditional music history due to differences in musical tone and color were mentioned on one occasion. On two occasions it was considered important to avoid excessive experimentation with modes and harmony.

The skills mentioned most frequently were the ability to use the voice recorder, the metronome, and in a couple of cases also the instrument amplifier. On one occasion the use of looper in voice improvisation was mentioned and on one occasion the systematic use of *mp3*-files in improvisation practice. Three students used music editing software on a regular basis.

Master's programme students generally considered their contact with music technology above average. Only a small number of respondents used effect control panels (electronic modification of acoustic sound) in their work. All respondents considered knowledge of music technology important, all respondents used music technological devices in their everyday work.

Effectiveness of looper in traditional music improvisation studies was considered important by all respondents. The students' answers to the question which skills can be developed using looper were as follows:

* teaches to listen to one's own performance;
* improves rhytmic accuracy and intonation;
* improves reactivity and coordination;
* helps to concentrate on a small part of the musical material;
* develops creativity;
* increases the player's self-confidence.

As a positive feature use of looper in independent work was mentioned. Looper was considered especially suitable for free improvisation and memory training. On one occasion it was claimed that more time and privacy is needed to get better acquainted with looper.

The following negative effects were mentioned:

* looper does not substitute collaboration with people;
* too much attention is given to generating one's own thoughts and to reflection;
* does not substitute "real" music;
* working with looper is too systematic.

Most respondents felt that disproportionate use of looper could become a distraction in: sense of ensemble play, playing in a natural (acoustic) environment and sensing the musical pulse. Half of the respondents mentioned that using looper does not pose any threats. The respondents believed that the negative effects of using looper could be avoided by moderate use of looper, better knowledge of the traditional source material and parallel use of different methods.

The interview responses show that students value the use of music technology, including looper, in traditional music improvisation studies moderately highly. The effectiveness of looper in testing creative ideas and conducting improvisation practice is perceived clearly while being aware of the dangers created by disproportionate use of looper.

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5. Conclusions

It follows from the results of the research that use of looper in traditional music improvisation is justified if the students have acquired the necessary basic knowledge of music technology. Several students were hampered in improvisation with looper because of their insufficient knowledge of the area in question. Some students were unused to hearing the sound of their instrument through a sound amplifier (the amplifier emphasized certain frequencies). This interfered with the familiar, acoustic perceiving of musical patterns.

The results of the study show that the students lack knowledge and skills of amplifying acoustic instruments and specifics of special microphones (contact microphones) that are required for using looper. Master's programme students who had more practical knowledge and skills in this area were in a considerably better position. The students have mainly acquired this knowledge independently or by studying abroad.

Most of the students considered it necessary to improve the acquisition of basic knowledge about music technology already at the early stage of the studies. It was admitted that situations where problems with sound technology (types of microphones, their placement on the instrument and on stage etc.) cannot be solved by oneself sometimes occur both in the study environment and at concerts . The students nonetheless considered it important to use music technological tools more frequently but the availability of such tools is restricted by their high price and the students expect the support of the educational institution in making these tools available.

The results of the research indicated that using looper in improvisation is more successful if an individual method of instruction is used. If the individual method is used the students must have an opportunity to practice working with looper in a specifically designed classroom which is supplied with necessary microphones and high quality sound technology. Using the group method is justified in the initial introduction of looper and when using specific improvisation tasks meant for a group.

Use of looper in traditional music improvisation studies is justified if the student is previously aware of the traditional methods in improvisation technique. Awareness of the peculiarities of one's particular instrument and traditional techniques of playing variations would enable to maintain the connection with the sources of traditional music. Taking these conditions into account looper could be a very effective tool in any kind of improvisation studies as well as in traditional music improvisation studies more specifically.

References

Alperson, P. (2010) A Topography Of Improvisation. *The Journal of Aesthetics and Art Criticism* 68 (3), 273-280.
Bailey, D. (1980) *Improvisation: Its Nature And Practice in Music.* Da Capo Press.
Cope, D. (2000) *New Directions in Music*. Prospect Heights, Illinois: Waveland Press.
Darren, P. (2008) *Live Looping: The Use of Looping Technology in Music* [BA thesis]. Dartington: Dartington College of Arts.
Freund, D. (2011) Guiding Young Composers. *Philosophy of Music Education Review* 19 (1), 67-79.
Frompovitsh, B. (2010) *Looping As a Practice Tool*. Read from http://www.musicteachershelper.com/blog/looping-as-a-practice-tool/
Impro-Visor. Read from http://www.supershareware.com/info/impro-visor.html
Looper [Def. 1]. In Oxford Dictionaries. Read from http://www.oxforddictionaries.com/
Löfström, E. (2011). *Guide to Action Research*. Read from http://www.digar.ee/arhiiv/nlib-digar:103283
Monk, A. (2010) Improvisation: Initial Steps. *The Canadian Music Educator* 52, 43-45.
Pearson, V. (2010) Authorship and Improvisation: Musical Lost Property. *Contemporary Music Review* 29, 367-378.
Peters, G. (2005) Can Improvisation be Taught? Read from http://www.academia.edu/207085/Can_Improvisation_be_Taught
Sloboda, J. (2011). *The musical mind. The cognitive psychology of music.* Oxford: Clarendon Press.