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BENEDEK MÓNIKA*

**A ZONGORA-IMPROVIZÁCIÓ SZEREPE ÉS
SZÉLESKÖRŰ ALKALMAZÁSA A BAROKK ÉS JAZZ
HARMÓNIA TANÍTÁSÁBAN – EGY DOKTORI
KUTATÁS EREDMÉNYEI**

**MÓNIKA BENEDEK
THE ROLE OF PIANO IMPROVISATION IN
TEACHING HARMONY, USING COMBINED
MATERIALS SELECTED FROM THE BAROQUE
PERIOD AND JAZZ STANDARD REPERTOIRE:
TOWARDS A COMPREHENSIVE APPROACH – MAIN
FINDINGS OF PHD RESEARCH**

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Összefoglalás

A zeneelmélet, és ezen belül a harmónia tanítás pedagógiája különböző hagyományokat követ a felsőfokú klasszikus és jazz zenei oktatásban. Ezek a különbségek mind az adott zenei stílusok jellegzetességeiben és kifejezőmódjaiban gyökereznek, melyek különböző zenei korszakokban keletkeztek és fejlődtek ki a mai formájukra. A különböző stílusoknak azonban számos közös jellemzője van, például a barokk és a jazz improvizációs gyakorlata. Ezért az alábbi doktori-kutatás a zenei gyakorlatok azon elemeit egyesítette, amelyek elősegítik e két stílus közötti átjárhatóságot a stílusok harmóniai sajátosságainak tanításában. A kutatás fő célja az volt, hogy kiaknázza a zongora improvizáció mint lehetséges pedagógiai eszköz alkalmazhatóságát a barokk és a jazz harmónia együttes tanításában. Továbbá a kutatás azt is megvizsgálta, hogy az improvizáció milyen módon segíti elő a barokk és a jazz egyes harmóniai jellegzetességeinek megismerését és a különböző zenei készségek fejlesztését.

A kutatási stratégiaként az ún. akció kutatásra, (action research), vagy másnéven gyakorlat kutatásra (practitioner research) esett a választás, mely a zenepedagógiában, pl. tanmenet fejlesztésben kedvelt kutatási forma, mert így a kutató a tanítási gyakorlatot a résztvevők (pl. oktató és a diákok) együttes akciójában keresztül képes vizsgálni akár többciklusos formában. A jelen kutatás két egymást követő egyetemi kurzust azaz kutatási ciklust használt fel adatgyűjtő tanulmányának: egy rövidebb, hét hetes Első Tanulmányt (Study One) és egy teljes akadémiai szemeszter

hosszúságú Második Tanulmányt (Study Two) a finnországi Jyväskylä Egyetem Zenei Tanszékén, többnyire finn egyetemi hallgatók részvételével. Ugyanakkor az Első Tanulmány egy kísérleti tanulmánynak is funkcionált (Pilot Study), mely a kutatás egyes kérdéseit, alkalmazott pedagógiai módszereit, továbbá az egyes adatgyűjtési és adatelemzési metódusokat is tesztelte, amíg a Második Tanulmány a kutatás fő tanulmányaként (Main Study) szolgált.

A kutatás mindkét ciklusa kvalitatív kutatási módszereket alkalmazott mind az adatgyűjtésben, mind az adatelemzésben. Az Első (Kísérleti) Tanulmányban hét egyetemi hallgató vett részt (négy finn és három nemzetközi hallgató). A Tanulmány fő céljaként azt vizsgálta, hogy melyek a tanár és diákok szemszögéből is a legjobban alkalmazható módszerek a barokk-klasszikus és a jazz harmónia együttes tanítására. A hallgatók a zeneelmélet-tanulással kapcsolatos korábbi tapasztalataikat és a kurzus alatt tapasztalt tudás és zenei képesség-fejlődést, továbbá a tanulási folyamattal kapcsolatos kihívásokat kérdőívekben és tanulás-naplókban osztották meg a tanár-kutatóval. Az adatgyűjtés a kurzus folyamán készített videófelvetelekre, írásos zeneelmélet-tesztekre és a tanár-kutató saját reflektív naplójára is kiterjedt. A video-felvetelekből először írásos nyersanyag-adat készült, így az összes adat szöveges formában került kvalitatív tartalom elemzésre a Hyper Research Software segítségével.

Az Kísérleti Tanulmány eredményei azt mutatták, hogy a barokk-klasszikus és a jazz harmónia tanításában azok a pedagógiai módszerek voltak a legsikeresebbek, amik a gyakorlat útján közelítették meg az elméleti ismeretek elsajátítását, mint például a variáció-zeneszerzés és a zongora improvizáció, továbbá a hallás utáni tanulás és a hallás-képzéssel kapcsolatos gyakorlatok. A tanításban legeredményesebben alkalmazható zenei példák az élő (valódi) zenei anyagok (mind írásos és hangzó) mutatkoztak mindkét stílusban a mesterséges zenei példákkal szemben.

A Második Tanulmány (Main Study) a Kísérleti Tanulmány eredményeire támaszkodva fő célként a zongora improvizáció szerepét és alkalmazhatóságát vizsgálta a barokk és jazz harmónia tanításban, bizonyos barokk variációk és jazz *standard*-eket használva tanítási anyagként. Kilenc egyetemi hallgató (hét finn és két nemzetközi hallgató) vett részt a teljes akadémiai szemeszteren futó barokk és jazz harmónia kurzuson. A diákok két parallel csoportba osztva (4 és 5 diák) ugyanazt az anyagot tanulták heti 3 órában azzal a különbséggel, hogy az egyik csoport az őszi szemeszterben alkalmazta a zongora-improvizációt (Early Improvisation Group), a másik csoport pedig a tavaszi szemeszterben (Late Improvisation Group).

Az adatgyűjtés különböző adatforrásaiként a harmóniatesztek, improvizációs-tesztek, videó-felvetelek, kérdőívek, a tanár-kutató tanterve és a reflektív tanmenet-fejlesztő feljegyzései szolgáltak. A három írásbeli teszt a diákok barokk és jazz harmónia elméleti tudásának és a hallás képességének (elméleti ismeretek hallás utáni felismerése, diktálás, transzkripció stb.) fejlődését mérte a kurzus elején, közepén és a végén. Az improvizációs-tesztekkel készült hangfelvetelek a tanulók egyedi (individual improvisation) és társ-improvizációs (peer-improvisation) készségfejlődését és a megszerzett barokk és jazz harmónia ismeretek gyakorlati alkalmazását mérte. Az improvizációs tesztek a diákok az adott csoport improvizációs szemeszterének elején és végén teljesítették,

melyeket nemcsak a tanár-kutató értékelt, hanem csoportonként négy-négy független szakértő (zeneművész és zeneakadémiai vagy egyetemi tanár) is, akik a hangfelvételeket névtelen hangfájlokként kapták meg. A kurzus folyamán rendszeresen (de véletlenszerűen) készített videó felvételek pedig fontos háttér-adatokat nyújtottak diákok egész éves fejlődéséről. Továbbá a kurzus elején, alatt és után különböző kérdőívek szolgáltattak adatokat a diákok korábbi formális és informális tanulmányairól: barokk zeneelmélet, jazz zeneelmélet, hallásképzés (szolfézs), zongora, szabadkíséret, improvizációs és egyéb hangszer; a tanulás alatti tapasztalatokról; egyéb zenei stílus-ismereti, zenehallgatási, és egyéni és társas (zenekari, kisenekari, kamara stb.) zenélési szokásairól; továbbá a kurzus alatt lévő tapasztalataikról a különböző feladatok, zenei anyagok, és az improvizáció kapcsán.

Az összegyűjtött adatok kvalitatív adatelemzése minden diák esetében külön esettanulmányként zajlott. A kilenc diák esettanulmánya (Students' Cases) mint kronológiai narratívák mutatták be a diákok individuális tanulási folyamatait, tudás és zenei készség-fejlődési vonalát, a tanulással kapcsolatos kihívásokat, továbbá a diákok személyes véleményét az improvizáció mint pedagógiai eszköz alkalmazhatóságáról.

Az kutatás fő eredményei azt mutatták, hogy a zongora improvizáció, különösen a társas-improvizáció (peer-improvisation) nagymértékben ösztönözte a diákok barokk és jazz harmónia elméleti és gyakorlati ismereteinek megszerzését, az improvizáció, a zongora játék, a zenei hallás és a belső hallás képességének fejlődését. A társas-improvizáció, amikor az improvizáló felek a szólamokat (a dallamot, a harmóniai kíséretet és a basszust) egymás között osztották el, a stílus-, és ritmusérzék fejlődését, a kreativitást, a kifejező zenei előadásmódot és az együttműködési készséget is elősegítette. A harmóniai kíséret-játék és improvizáció különösen pozitív hatással volt mind a barokk és a jazz harmóniai sajátosságok, a harmóniai szólamvezetés megértésére és gyakorlati alkalmazására. Ugyanakkor az is megfigyelhető volt, hogy a diákok meglévő elméleti tudása és zenei képességének szintje, továbbá az improvizáció mint alkalmazott pedagógiai eszköz időzítése a kurzus folyamán különbözőképpen befolyásolta az egyes diákok tanulási folyamatait. Például azok a diákok, akiknek a zongora-tudás szintje alacsonyabb volt a többiekénél több kihívást tapasztaltak az improvizációs gyakorlatok során. Ezek a diákok kicsit lassabban is fejlődtek az improvizációban, különösen az egyéni improvizáció technikájának elsajátításában. Hasonló volt tapasztalható azon diákok esetében is, akik szerényebb elméleti ismeretekkel, vagy hallás-készséggel jöttek a kurzusra. Ők lassabban zárkóztak fel a különböző feladatok (például szólamvezetés-írás, diktálás, vagy hangzatfelismerés) teljesítésében. A kutatás tapasztalatai általánosságban azt mutatták, hogy az improvizáció mint pedagógiai eszköz egy bizonyos szintű elméleti ismeret, zongora-játék és hallás-készség megszerzése után alkalmazható a legeredményesebben a barokk és jazz harmónia tanításban. Mindazonáltal a diákok arról számoltak be, hogy az improvizáció komoly mértékben motiválta őket a mind a barokk, mind a jazz harmónia elméleti és gyakorlati ismereteinek megszerzésében és a stílusok mélyebb megértésében. Emellett a diákok azt is tapasztalták, hogy az improvizáció a zenei hallás-képességüket is pozitívan befolyásolta.

Összességében a doktori kutatás az improvizáció - különösen a társas-improvizáció - szélesebb körű alkalmazását javasolja nemcsak a jazz, hanem a felsőfokú klasszikus zeneelmélet, szolfézs, és az egyéb hangszeres és vokális tantárgyak tanításában. Továbbá a társas improvizáció hasznos kiegészítője lehet a csoportos ének-zene óráknak, zenekari gyakorlatoknak és kórus próbáknak, nemcsak felsőfokon, hanem alap- és középfokon is.

Theoretical background

The study of harmony is an essential part of higher music education with traditional variations in the approach to pedagogy, depending on whether the stylistic focus of music is classical or jazz. These differences are based on the musical practices and musical sources (i.e. written, aural, or recorded) that are inherent to each particular genre. While classical musicians tend to learn harmony mainly from the score, jazz tradition is still more associated with ear-learning and practical learning by which early jazz musicians learnt the repertoire principally from each other (Berliner, 1994, p. 28-29; Jackson, 2002, p. 90; Monson, 2002, p. 115). Jazz musicians today usually use this rather more practical approach, involving a written version of the theoretical material in question or information that is listened to and copied from other musicians, so it can be directly used within a composition or improvisation.

These differences are also reflected in textbooks, where we find classical and jazz harmony being approached to. While the majority of classical textbooks are primarily analysis-centred and use existing written musical examples, most jazz theory books and computer tutorial programmes principally focus on the theoretical presentation of jazz harmony in order to advance the appropriate theoretical knowledge for jazz improvisation, and usually quote less musical examples than the classical ones.

At the same time, classical music educators today recognize that the aural learning and collaborative learning (Green, 2002; Ilomäki, 2011; Kopiez & Lee, 2008; Rikandi, 2012) are important and powerful interrelated learning strategies not only in the jazz but also in the classical music classroom. Blix (2013), Hickey (2009), Johansen (2013), Koutsoupidou (2005), and Varvarigou (forthcoming) also reported that learning and playing by ear, listening to recordings, copying peers' musical ideas, improvising, and composing with peers supports students' social interactions, problem solving, and appreciation of each other's knowledge and musical skills. Yet, classical musicians still prioritise the notation based skills (Creech et al. 2008) because the notated score is the primary source to learn particular musical opuses and various stylistic features in the classical domain.

Nevertheless, these genres do share a variety of common features and idioms: for instance improvisation is a common practice of baroque and jazz. In jazz, musical ideas are often sketched out and realised by improvising the written theme and chord progression, as indicated by lead sheet symbols. This is similar to the baroque improvisation practice, in which the figured bass (usually improvised on the harpsichord) provided

the main shorthand notation for real-time compositions. (Bailey, 1980, p. 29; Sarath, 2010, p. 90; Gonda, 1979, p. 324).

Despite the common practice, while the majority of research in jazz pedagogy focus on the effectiveness of various approaches, materials, and tools for teaching improvisation (e.g. Flack, 2004; Heil, 2005; Hughes, 2011; and Laughlin, 2001), there is still a long way to go until improvisation regains its former prestige in classical music education and becomes as everyday practice as it was in the Baroque era (Dolan, 1996, 1997, 2005). The reasons behind this lie partly in the definitions of improvisation such as “creation or final form of musical work, as it is being performed [...] without a written or printed score, and not from memory” quoted both the New Grove Dictionary of Music and Musicians (2001) and The Oxford Dictionary of Music (2007). Sarath (1996, p. 3) further describes improvisation as the “spontaneous creation and performance of musical materials in a real-time format, where the reworking of ideas is not possible”.

Even though these definitions of improvisation sound quite terrifying for many classically trained musicians, as they have principally been trained to play music from a written score, it is commonly agreed that improvisation is a prepared musical activity (Kingscott and Durrant, 2010, p. 137; Kovács, 2011, p. 11). Dolan also adds that “being thoroughly prepared is the only way you can have the inner freedom to create fresh interpretation while you perform. [] For instance, when I am preparing for a concerto cadenza I work through the piece very thoroughly.” (1996/1, p. 13). These thoughts sound encouraging to the classical musicians to attempt to improvise. Following this philosophy, recently many efforts are being made to bring improvisation back to the classical music curriculum and performance practice (e.g. Apagyi, 2008; Callahan, 2012; Chyu, 2004; Dolan, 1996/1997; 2005; Kossen, 2013; or Woosley, 2012). These experts, as well as Guderian (2008), Lee (2000), and Sarath (2010) agree that improvisation help broadening stylistic knowledge and developing various musical skills, in particular the aural skills and creative musicianship skills.

At the same time, both classical and jazz practitioners such as Chyu (2004), Kovács (2011), Lee (2000), Sarath (2010), or Woosley (2012) claim that a certain level of theoretical knowledge is required for improvisation, and vice versa, improvisation also leads to a better understanding of music theory and develops the aural skills (Brown, 1990; Humphreys, 1984; Randall, 1993). In jazz, improvisation and music theory is more interrelated subjects than in the classical domain, however, according to the Comprehensive Musicianship philosophy^[1] improvisation somehow should be integrated into the classical music theory curricula (Rogers, 2004, p. 20). Therefore, recent work by Edward Sarath ‘*Music Theory through improvisation – a new approach to musicianship training*’ (2010) is a significant work in this subject, as it is designed mainly for classical musicians. The book presents improvisation (either individually or in group settings and using any instruments) not only without stylistic boundaries, but it also offers tips to improvise certain idiomatic chord progressions. Nevertheless, improvisation is still rarely used as a comprehensive approach for teaching music theory or harmony.

The current research intends to fill this gap.

Aims of research

The main aim of research was to explore the applicability of piano improvisation as a potential pedagogical tool in combined teaching of baroque and jazz harmony, in particular, in what ways can it support the development of harmony knowledge and various musical skills, such as accompaniment, aural and improvisation skills. The research also intended to test a teaching material that bridges the gap between baroque and jazz such as certain baroque variations that contain similar chord progressions as do particular jazz standards. This part of inquiry was especially supported by the author's previous teaching experiences and research prior to her doctoral studies (Benedek, 2008, 2010). Since the improvisation activities used these chord progressions selected from the teaching material, the study looked how the various improvisation activities involving these chord progressions contributed to the progress in learning harmony. Peer improvisation techniques, in which the parts of music such as melody, chord accompaniment, and bass were shared between the students were examined to determine how they influenced students' accompaniment, aural, and melody improvisation skills with peer accompaniment, and students' individual improvisation performances on the piano, and how all of these were related to students' pre-existing knowledge of harmony and musical skills.

The general broader aim of this research was to identify ways of improving the curriculum for mainstream classical and jazz harmony studies at the tertiary level, by exploring and comparing the most applicable teaching methods, approaches, and tools. The research considered the traditional differences between the two genres from both historical and educational perspective, therefore, at first, a pilot study was used to identify certain distinguishing teaching approaches to harmony from each genre and to examine their cross-applicability in a context that combined the genres in teaching harmony.

Research methodology

Data collection

Following the action research (practitioner research) strategy (Anderson and Herr, 2005; Bannan, 2004; Cain, 2008; Vámos, 2013), the research was conducted in two cycles, Study One (Pilot) and Study Two (Main Study), and data were collected in two subsequent teaching courses at the Music Department of the University of Jyväskylä in Finland. Qualitative research methodology was applied in both studies for the data collection and analysis (Atkinson & Delamont, 2010; Mason, 2002).

The Pilot Study (Study One) involved seven students (four Finnish and three international students) and examined what kind of approaches the students and the teacher found the most applicable in combined harmony teaching. Data concerning students' previous experiences and the progress and challenges to learning harmony during the course were gathered from questionnaires, learning diaries, video recordings, and harmony tests for comparative analysis with the researcher's observations.

Findings showed that the practical approaches i.e. improvisation, composing variations, aural learning, and using existing musical examples were particularly preferred and applicable in such combined teaching of harmony.

Based on the outcomes of the first research cycle, which emphasized the need for harmony studies to include more aural and practical training, Study Two (Main Study) explored piano improvisation further with nine students (seven Finnish and two international students) divided in two groups, four and five, respectively. Students of both groups learnt the same material from baroque and jazz literature, with practical approaches using keyboard, and with an especial emphasis on aural learning. Students' improvisation skills were tested as an additional music activity on the piano both alone and with peers in different part of the course: Early Improvisation Group (four students) during the first part of the course, and Late Improvisation Group (five students) during the second part of the course.

Teaching material

Because the study looked at not only how improvisation could be applied as a functional pedagogical tool but also how it could bridge the gap between the two genres, those baroque variations and jazz standards were chosen from the canon of music that would be able to help students finding connections between the stylistic features of both styles. For instance, among others *chaconnes* and *passacaglias* by J. Pachelbel, G. F. Handel, and C. H. Purcell; *foglia* variations from Ph. E. Bach, A. Corelli, and M. Marais, as well as jazz standards such as 'Autumn Leaves', 'Fly Me to the Moon', 'Take the 'A' Train', 'Beautiful Love' and 'All the Things You Are' provided same or similar chord progressions for comparative analysis and piano improvisation.

Data sources and analysis

Three written harmony tests consisted of 21 tasks, measured the development of students' harmony knowledge in both baroque and jazz, and the aural skills (i.e. aural recognition of elements of music theory, dictation etc.) at the beginning, middle and end of the course.

Audio recordings of improvisation tests measured students' improvisation skills with and without peer accompaniment, before and after the improvisation phases of course. The anonymous audio files of the improvisation tests were evaluated by external experts using the rating scale (1–7) according to four assessment criteria: *Musicality in general*, *Originality*^[2], *Stylistic awareness of rhythm and form* and *Stylistic awareness of melody, phrasing, and embellishment*. The numerical results were transcribed to expressions (i.e. 1 = poor; 2 = fair; 3 = moderately good; 4 = good; 5 = very good; 6 = excellent; 7 = outstanding) for supporting the description of results and were compared to the teacher-researcher's qualitative evaluation.

Students could also express their opinions about learning harmony with and without improvisation via questionnaires (both written comments

and using the same rating scale 1 to 7). The questionnaires also provided data of students' previous formal and informal education, and their favoured musical styles to play and listened to. The responses to the questionnaires using rating the same scale (1-7) were transcribed into expressions, giving meanings to the figures, supported by content analysis of the students' detailed written answers about their learning progress given in the final questionnaire and the supplementary questionnaire.

The observations supported by video recordings (a total of three hours) of the lessons also showed the students' overall learning progress and development of musical skills.

Finally, 22 weekly lesson plans for each group as well as self-reflective observations and evaluations of the teaching process provided the background data from the teacher-researcher. The 'dialogue' between the various forms of data formed the basis of the validation of the findings.

All data were analysed separately in each student's case and were presented as a chronological narrative of each student's learning progress, and conclusions were drawn from each case.

Main findings

The overall results showed that improvisation, especially with peers, positively influenced the students' theoretical, practical and stylistic knowledge of both baroque and jazz harmony and various musical skills, in particular their aural skills. However, students' existing knowledge of harmony in each genre, the starting level of their aural, improvisation, and piano skills, and the timing of the improvisation during the course also influenced the learning progress. Those students, who had solid theoretical knowledge, sufficient piano skills, and more formal and informal experiences of improvisation could apply their skills and knowledge more easily to both baroque and jazz improvisation exercises, especially with peers. For instance, Harriet (Early I G) noted: "*the improvisation tasks were more like a kind of eye-opener: they helped me notice how many possibilities there are...*" It appeared that these students benefited more from the improvisation activities in the first part of the course, than those students who had less theoretical knowledge and practical skills.

Meanwhile, students of Late I G had more time to establish their theoretical and practical skills with other music activities during the first non-improvisation part of course, such as realising and playing the various chord progressions, practicing accompaniments by playing along with or without the recording and score. Pamela explained: "*...Because in the beginning everything was new and we got to know all the basics ... for example the II-V-I system as a part of cycle of fifths...*"

Kathleen noted: "*The first semester began by refreshing my previous knowledge...*". "*in the second semester [improvisation phase], I was much more comfortable with: (a) the group [being one of the international students], and (b) the material. I was not so scared of making mistakes, as before, so improvisation was not as terrifying for me...*"

Therefore, generally, improvisation appeared to be more applicable to learning harmony once a certain amount of theoretical knowledge and aural and piano skills were first established. At the same time, peer

improvisation exercises, when the students shared various parts of music between each other (and sometimes with the teacher) developed students' aural skills, because they had to listen carefully to each other's playing in order to copy and develop other's musical ideas. Peer improvisation exercises enhanced students' expressions of musicality, sense of tempo, pulse, meter, and rhythm. Students also could apply the learned stylistic features of melody embellishment in the melody and bass improvisation by taking care of the melody phrasing, rhythmical traits, and musical form, which altogether contributed to their development of understanding the nature of styles. Furthermore, chord accompaniment seemed to have been especially beneficial to the practical understanding of the positions, spacing, and voice-leading of chords in the harmonic progressions.

However, the success of peer improvisation activities depended on the students' individual skills. Usually, when students with similar musical skills were paired with each other, they could experiment more with the style and challenge themselves with more sophisticated solutions in the musical texture. Students with different abilities in a duo or trio benefited differently from each other: the less skilled students, who faced more challenges in their improvisation, could learn more from their peers, e.g. copy various ideas, meanwhile the more experienced students needed to be very collaborative to help the less-skilled students, e.g. to keep a more stable tempo and accurate rhythm. Nevertheless, peer improvisation exercises enhanced students' creativity, and positive collaborative attitude, which made all of these events even more meaningful, enjoyable, and memorable.

The effects of supplementary practical music activities such as listening to and playing along with a recording with and without the written score, playing chord accompaniments, singing and/or playing the chord progressions on the piano, chordal and melody transcriptions were also examined. As a result, students found the listening and singing and playing exercises beneficial over the year in both genres, whereas they appeared to find the playing-along exercises even more useful in the non-improvisation phases of the course, in particular in jazz, since playing along was the closest they could get to improvising. Furthermore, compositional activities such as writing melody variations on either a baroque theme or walking bass on jazz II-V-I gave students in the Pilot Study (Study One) the necessary encouragement to creatively apply their theoretical knowledge in practice.

Nevertheless, improvisation generally motivated students to learn harmony in both styles because students could put their knowledge into instant practice, as Samantha (Late I G) explained:

"It [improvisation] makes all teaching alive and motivates to learn. You somehow get a nice playing break but you actually still practice the same things you studied before the improvisation break. Some things in [both] jazz and baroque harmony you only learn by hands-on experience".

Finally, regardless of musical background, students appreciated learning harmony with the combined teaching material, because "...you learn the differences and similarities easier than if you studied them separately" – as Melanie (Late I G) noted. Students found learning baroque harmony together with jazz harmony helpful for understanding the common and distinguishing elements of both musical styles, "... since

there are some similarities in these styles, e.g. basso continuo compared to walking bass...” explained by Elliot (Early IG), who had solid knowledge in jazz. Meanwhile, Kathleen, who had lesser exposure to the jazz background than the other students also affirmed:

“... the styles have many similar attributes.... Personally learning the two styles together was great for me because I was trained classically and I am more familiar with baroque. Teaching together with jazz gave me a better understanding of the different styles, so that I was not jumping into something that I was completely clueless about”.

Discussion and implications (Summary)

Piano improvisation is a very complex musical activity that merges various musical skills and knowledge such as aural skills, inner hearing, technical ability to play the piano, and stylistic and theoretical knowledge. This is something that most practitioners such as Chyu (2004), Kossen (2013) Lee (2000), Sarath, (2010), and White (2002), Woosley (2012) agree on. According to Randall (1993) improvisation even ‘closes the gap’ between theory and practice. Despite of the fact that improvisation is a common practice in both baroque and jazz, practitioners usually offer very different ways for teaching improvisation in each genre: for instance, Chyu’s (2004) repertoire-based improvisation using written score from the Baroque era, or Lee’s (2000) aural approaches to learning jazz improvisation for classical musicians. Since the results of the current doctoral research indicated that the various musical skills as well as the stylistic and theoretical knowledge could be developed with piano improvisation to a certain extent in both baroque and jazz, improvisation was, in general, found to be a successful pedagogical tool for learning harmony. The combination of baroque and jazz harmony in the same course also seemed to have been beneficial for understanding the common elements of both styles, which together with the improvisation also pointed the relevance of the comprehensive approach to learning harmony, similarly to Sarath’s work (2010).

Students’ success of improvisation, however, strongly dependent on their technical ability to play the piano. Accordingly, when students improvised together in pairs or in trios, they were able to share the various parts of music between each other, such as melody, bass, or chord accompaniment, either with two hands or one hand. This way, students with less piano skills were able to be involved in the learning progress that increased their encouragement and motivation to learn either the music theory or develop their various musical skills.

Elaborating the melodies with particular ornaments is also a recognized approach both in learning baroque-classical improvisation (Dolan, 1996/3, p. 13) and in the early jazz history, when musicians employed the same technique of embellishing familiar tunes by paraphrasing and syncopating the melodies (Monson, 2002. p. 115). At the same time, using harmonic patterns for improvisation (Kingscott & Durrant, 2010, p. 135) also shows accordance with certain jazz theory books, improvisation books, and ‘riff-compendia’ tutorials (Pressing, 1987, p. 141), as well as with the baroque keyboard practice (Dolan, 2005, p. 103; Woosley, 2012, p. 36). Therefore, the peer-improvisation technique

applied in the current doctoral research is a widely applicable pedagogical tool for learning harmony with improvisation, and vice versa, learning improvisation with harmony.

Students also felt motivated to learn harmony with improvisation and baroque and jazz harmony combined, however, improvisation appeared to be more applicable once students acquired a certain amount of theoretical knowledge, aural and piano skills. Students also experienced that learning harmony with improvisation is more meaningful when other practical approaches and various other course activities (listening, dictation, play-along etc.) were also integrated into the course curriculum. These findings are in line with certain curricular trends and philosophies that Rogers (2004) has presented, i.e. enhancing comprehensive musicianship, integration of aural skills, and focusing on skill-learning instead of learning concepts. However, in the baroque-classical and jazz harmony context, these curricular plans seemed to function the best, when integrated with others to maintain a healthy balance between not only the conceptual and practical but also aural and written skills.

The potential benefit of written variation composition exercises was also discovered during the course of Pilot Study. Because some of the students from Study Two also had fewer experiences in improvisation, the written compositional exercises could have been applied in Study Two to supplement the piano improvisation exercises. The written composition exercises could have helped students to imagine and inner hear their improvised musical texture within a particular musical form, therefore it is recommended to combine improvisation with the written compositional exercises.

Implications for pedagogy and recommendations

The main findings of research suggest that improvisation should be an integral part of higher education programmes not only in jazz but also in classical music, especially in the classical music theory curricula and aural skills programmes.

The outcome of research also recommends investigating further the applicability of peer improvisation in learning harmony from Baroque, Vienna Classical, and Romantic period, which would help bringing improvisation back into the mainstream classical music theory pedagogy and classical performance practice.

At the same time, it is also hoped that these practical exercises would be able to motivate jazz students to learn the stylistic features of harmony from the Common Practice period more deeply.

The peer improvisation techniques that were employed and explored in the current research would be suitable pedagogical tools also for various piano courses, such as the 'compulsory' keyboard skill courses for non-piano majors in Western classical professional music education programmes, as well as the Finnish 'vapaa säestys', i.e. 'free piano accompaniment' curriculum^[3], which usually also includes popular music material.

Also, future studies on this topic would benefit by executing the course in the piano-laboratory environment, as it would provide more

opportunities for students to improvise with their peers, i.e. students or teachers.

Furthermore, for those students who do not play the piano, these exercises may be performed with other instruments, therefore, the research advocates including peer improvisation activities in the general music classroom pedagogy, and the music teacher education programmes.

Finally, it is recommended to further examine and apply improvisation in various musical subjects and musical genres not only at the tertiary level but also the intermediate and beginner level.

References

- Anderson, G. L. and Herr, K. (2005). *The action research dissertation: A guide for students and faculty*. Thousand Oaks, Calif: SAGE Publications.
- Apagyí, M. (2008). *Zongorálom I-III. Kreatív zongoratanulás*. Apáczai Nevelési Központ Martyn Ferenc Művészeti Szabadiskola, Pécs.
- Atkinson, P. and Delamont, S. (2010). *Qualitative research methods*. London: Sage.
- Bailey, D. (1980). *Improvisation*. Ashbourne: Moorland publishing.
- Bannan, N. (2004). A Role of action research projects in developing new pedagogical approaches to aural and musicianship education. In Jane Davidson (Ed.), *The music practitioner: Research for the music performer, teacher and listener*, 295–308. Ashgate.
- Benedek, M. (2008). Accordances and Differences in the Classical and Jazz Harmony Notation. *Bulletin of the International Kodály Society*, 33(1), 37-47.
- Benedek, M. (2010). The Active Use of Relative solfa in the Theory of Classical and Jazz Music Education. *Bulletin of the International Kodály Society*, 35(1), 30-42.
- Berliner, P. (1994). *Thinking in jazz: The infinite art of improvisation*. Chicago: University of Chicago Press.
- Blix, H. S. (2013) Learning strategies in ear training. In I. E. Reitan, A. K. Bergby, V. C. Jakhelln, G. Shetelig & I. F. Øye (Eds.), *Aural Perspectives – On Musical Learning and Practice in Higher Music Education*. (pp. 97-115). Oslo: Norwegian Academy of Music, NMH-publikasjoner, 2013:10.
- Brown, T. W. (1990). *An investigation of the effectiveness of a piano course in playing by ear and aural skills development for college students*. Doctoral dissertation. University of Illinois at Urbana-Champaign.
- Cain, T. (2008). The characteristics of action research in music education. *British Journal of Music Education*, 25(3), 283–313.
- Callahan, M. (2012). Incorporating long-range planning into the pedagogy of Baroque-style keyboard improvisation. *Music Performance Research*, Vol. 5, 59-78. Retrieved from [http://mpronline.net/Issues/Volume%205%20\[2012\]/Callahan.pdf](http://mpronline.net/Issues/Volume%205%20[2012]/Callahan.pdf)
- Chyu, Y. E. (2004). *Teaching Improvisation to Piano Students of Elementary to Intermediate Levels*. DMA dissertation. Ohio State University.
- Creech, A., Papageorgi, I., Duffy, C., Morton, F., Hadden, E., Potter, J. ,

- Bezenac, De C., Whyton, T., Himoides, E., and Welch, G. (2008). Investigating musical performance: commonality and diversity among classical and non-classical musicians. *Music Education Research*, 10(2), 215-234.
- Dolan, D. (1996-1997). Series of interviews about improvisation and interpretation by Jessica Duchon. *Classical Piano, Vol. 1 & 3, p.13*. Retrieved from <http://www.david-dolan.com>
- Dolan, D. (2005). Back to the future: Towards the Revival of Extemporization in Classical Music Performance. In Odam, G. & Bannan, N. (Eds.), *The Reflective Conservatoire: Studies in Music Education*. (pp. 79-131). Aldershot: Ashgate Publishers.
- Flack, M. A. (2004). *The effectiveness of Aebersold play-along recordings for gaining proficiency in jazz improvisation*. DMA Dissertation, Ball State University.
- Gonda, J. (1979). *Jazz –Történet, Elmélet, Gyakorlat*. Zeneműkiadó Budapest.
- Green, L. (2002). *How popular musicians learn: A way ahead for music education*. Aldershot: Ashgate Publishers.
- Guderian, L. V. (2008). *Effects of Applied Music Composition and Improvisation Assignments on Sight-Reading Ability, Learning in Music Theory and Quality in Soprano Recorder Playing*. PhD dissertation. Northwestern University. Illinois, USA.
- Heil, L.T. (2005). *The effect of two vocal jazz improvisation methods on high school choir students' attitudes and performance achievements*. PhD dissertation. University of Colorado at Boulder.
- Hickey, M. (2009). Can improvisation be 'taught'? A call for free improvisation in our schools. *International Journal of Music Education*, 27(4), 285-299.
- Hickey, M. M. (2001). An application of Amabile's consensual assessment technique for rating the creativity of children's musical compositions. *Journal of Research in Music Education*, 49 (3), 234-244.
- Hughes, W. (2011). Exploring 'The Solo Sessions': Aspects of physicality in Bill Evans' early solo style. *Conference paper. International Conference on Music Since 1900 / Lancaster University Music Analysis Conference*. 28-31 July 2011. Lancaster. UK.
- Humphreys, J. T. (1984). *An investigation of an experimental harmonic audiation skills testing and training program for instrumental music education majors*. PhD dissertation. The University of Michigan.
- Ilomäki, L. (2011). *In Search of Musicianship: A Practitioner-Research Project on Pianists' Aural-Skills Education*. PhD dissertation. Sibelius Academy, Helsinki.
- Jackson, T. A. (2002). Jazz as musical practice. In M. Cooke & D. Horn (Eds.), *The Cambridge companion to jazz*. (pp. 83-95). Cambridge: Cambridge University Press.
- Johansen, G. G. (2013). 'Learning from musicians better than me': The practice of copying from recordings in jazz students' instrumental practice. In I. E. Reitan, A. K. Bergby, V. C. Jakhelln, G. Shetelig & I. F. Øye (Eds.), *Aural Perspectives – On Musical Learning and Practice in Higher Music Education*. (pp. 75-95). Oslo: Norwegian Academy of Music, NMH-publikasjoner, 2013:10.
- Kennedy, M. (ed.) (2007). *The Oxford Dictionary of Music*, Oxford University Press.
- Kingscott, J. & Durrant, C. (2010). *Keyboard improvisation: a*

- phenomenological study. *International Journal of Music Education*, 28(2), 127-144.
- Kopiez, R. and Lee, J. I. (2008). Towards a general model of skills involved in sight reading music. *Music Education Research*, 10(1), 41-62.
- Kossen, R. S. (2013). *An investigation of the benefits of improvisation for classical musicians*. Dissertation. Edith Cowan University. Faculty of Education and Arts. Western Australian Academy of Performing Arts.
- Koutsoupidou, T. (2005). Improvisation in the English primary music classroom: teachers' perceptions and practices. *Music Education Research*, 7(3), 363-381.
- Kovács, Sz. (2011). *The Orgelbüchlein as school of improvisation*. PhD dissertation. The University of Jyväskylä, Finland.
- Laughlin, J. E. (2001). *The use of notated and aural exercises as pedagogical procedures intended to develop harmonic accuracy among beginning jazz improvisers*. PhD dissertation, University of North Texas.
- Lee, C. M. (2000). *An Introductory Guide to Jazz Improvisation for the Classical Violinist*. DMA dissertation. The University of Miami.
- Mason, J. (2002). *Qualitative Researching*. London: Sage.
- Monson, I. (2002). Jazz improvisation. In M. Cooke & D. Horn (Eds.), *The Cambridge companion to jazz*. (pp. 114-132). Cambridge: Cambridge University Press.
- Pressing, J. (1988). Improvisation: Methods and models. In J. Sloboda (Ed.), *Generative Process in Music* (pp. 129-178). Oxford: Oxford University Press.
- Randall, M. O. (1993). *The history of piano improvisation in western concert music*. DMA dissertation. University of Cincinnati.
- Randel, D. M. (ed.) (2003). *The Harvard Dictionary of Music*, Cambridge, Massachusetts: The Belknap Press of Harvard University Press.
- Rikandi, I. (2012). *Negotiating musical and pedagogical agency in a learning community – A case of redesigning a group piano vapaa säästys course in music teacher education*. PhD dissertation. Helsinki: Sibelius Academy.
- Rogers, M. R. (1984). (2004). (2nd ed.) *Teaching approaches in music theory, an overview of pedagogical philosophies*. Southern Illinois University Press.
- Sarath, E. (1996). A New Look at Improvisation. *Journal of Music Theory*, 40(1), p. 3.
- Sarath, E. (2010). *Music Theory through improvisation – a new approach to musicianship training*. New York: Routledge.
- Smith, J. (2008). Compositions of elementary recorder students created under various conditions of task structure. *Research Studies in Music Education* 30 (2) 159-176.
- Varvarigou, M. (forthcoming). Collaborative playful experimentation in Higher Education: A Group Ear Playing Study. *Arts and Humanities in Higher Education*.
- Vámos, Á. (2013). A gyakorlat kutatása a neveléstudományban – az akciókutatás. *Neveléstudomány*, 2013(2), 23-42. Retrieved from http://nevelestudomany.elte.hu/downloads/2013/nevelestudomany_2013_2_23-42.pdf
- White, J. D. (2002). (2nd ed.). *Guidelines for College Teaching of Music Theory*. The Scare Crow Press.
- Woosley, K. D. (2012). *The Lost Art of Improvisation: Teaching Improvisation to Classical Pianists*. DMA dissertation. The University of Alabama.

[1] The ‘Comprehensive Musicianship’ approach developed over the 1950s and ’60s in the USA, aimed to integrate various subjects (mainly literature, harmony, counterpoint, formal analysis, and additionally music history, conducting, orchestration, and keyboard skills) in the music theory curriculum, which otherwise are taught in separate courses (Rogers, 2004, p. 20).

[2] Criteria *Musicality in general* and *Originality* have some resonance with the assessment techniques that Hickey (2001) and Smith (2008) used and developed.

[3] In Finnish ‘vapaa säestys’ means ‘free accompaniment’. Usually piano, accordion or guitar is used for the ‘free accompaniment’, but the piano is the most popular. In Hungary, his subject is mostly known as ‘szabadkíséret’ from the jazz and popular music education.

* **Benedek Mónika** 2015 tavaszán szerezte meg a zenepedagógiai doktori fokozatát a finnországi Jyväskylä Egyetem Zenei Tanszékén, ahol az Egyetem ösztöndíjasként 2010 óta folytatta doktori tanulmányait, továbbá zeneelméletet (klasszikus és jazz), szolfézst és karvezetést is tanított. 2012 óta vezeti a JazzBirds kamarakórusát Jyväskylä város Felnőttoktatási Központjában (Jyväskylä kansalaisopisto). 2005-ben szerezte meg Mester Oklevelét a Liszt Ferenc Zeneakadémián ének-zene és karvezetésből, 1997-ben pedig kitüntetéssel végzett a Zeneakadémia Tanérképző Intézetének zeneelmélet-szolfézs és karvezetés szakán. 2015-ben vendégtanárnaként az angliai Canterbury Christ Church Egyetemen tartott előadást a doktori kutatásának eredményeiről, továbbá meghívást kapott a hágai Royal Conservatoire-ban megrendezett Master of Research Szemináriumra mint külső mesterkutatás-témavezető és külső bizottsági tag. Számos nemzetközi konferencián és szakmai napon tartott előadást a társas-improvizáció alkalmazásáról a zeneelmélet oktatásban és a kórusvezetésben (pl. Berlin Brandenburg International School, Kodály Intézetben). 2009-ben az ausztrál Queensland Egyetem Summer School-ján karvezetést, klasszikus és jazz szolfézst tanított. A doktori tanulmányai előtt többek között a Kodolányi János Főiskola Jazz Tanszékén, és a Dr Lauschmann Gyula Jazz Zeneművészeti Szakközépiskolában tanított klasszikus zenei tárgyakat és működött mint kórusvezető. Publikációi között kiemelendő a 2015-ben befejezett *Harmony through Relative Solfa – A practical approach using fine music examples selected from different eras* c. könyv Prof. David Vinden társszerzőjeként.