

Full Length Research Paper

Evaluation of impact of fine arts high school music department program on students' piano playing skills

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The research is aimed to evaluate the impact of fine arts high school music department program on the piano playing skills of students. In this context, it was determined to what degree fine arts high school students thought the school program contributed to their piano playing skills and differentiation of student opinions as per their gender and class was also examined. A cross sectional descriptive design was conducted. The sample of the research consists of 356 students attending five different Music Departments of Fine Art High Schools. A questionnaire, consisting of 23 items, was formed by the researcher to collect the data. The results showed that majority of students considered that the program was insufficient to contribute to development of their piano playing skills. For example, almost half of the students thought that the school program did not adequately develop their skills which include production and performance of musical ideas, transposition and composition skills in relation to piano playing skills. On the other hand, most of the students think that the program developed their independent instrument learning skills and their skills to evaluate the pieces which they played.

Key words: Music education, high school, piano education, student evaluation, piano playing skills.

INTRODUCTION

Different musical skills are involved in developing each of the visual (sight-reading, performing rehearsed music from notation), aural (that is, playing from memory and by ear) and creative (that is, improvising) aspects of music performance. There is no automatic transfer between the three orientations, and each need to be developed separately (Mc Pherson, 1993, 1996, as cited in McPherson and Hallam, 2011: 259-260).

Learning to play an instrument involves the acquisition of musical knowledge, musical skills and metacognitive

skills (Hallam, 1998: 254). When one learns to play a musical instrument one acquires knowledge. This knowledge is of different types: knowledge of something or knowledge about how to do something. For instance, if an individual is learning to read music, s/he acquires knowledge that a particular mark on the staff stands for the note G. S/he then needs to know how to turn that into sound. Over time, a connection will be made between the mark seen on the page and the means of turning it into sound. Initially this will take time, thought and effort but

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gradually, with increasing practice, the process will become quicker. Eventually, the simple task will be performed automatically with the learner free to concentrate on the higher level processes involved in playing music, for instance playing expressively. The knowledge is built up hierarchically. Declarative knowledge initially determines action. It is then proceduralized. Procedural knowledge can be directly executed without the pupil having to think about it. When a task is proceduralized, knowledge of what to do becomes knowledge of how to do it. However learning does not finish there. There is a final stage in the transformation and use of knowledge. For instance, the performance of single notes will be grouped into frequently recurring patterns which can be run off automatically, as in playing scales. This type of knowledge or skill is only achieved after many hours of practice (Hallam, 1998: 114-116).

In the development of musical skills there is an interplay between declarative (knowing something) and procedural (knowing how) knowledge (Hallam, 2008: 94). Playing an instrument involves the development of aural, cognitive, technical, musicianship and performance skills (Hallam, 1998: 116). Skill acquisition proceeds through three stages: cognitive, associative and autonomous (Hallam, 1998: 133). In the cognitive stage, learning is largely under cognitive, conscious control. In the associative stage, the learner put together a sequence of responses that become more fluent over time. In the autonomous stage, the skill becomes automated, is carried out without conscious effort and continues to develop each time it is used, becoming more fluent and quicker (Hallam, 2008: 94).

The technical skills of playing an instrument form the basis of instrumental teaching and learning. However, technique needs to underpin and support the development of other essential musical skills- listening and appraising, performing, improvising and composing (Ley, 2004a: 45). The key elements of technique are warm-ups, posture, producing good sound, intonation, and articulation. Correct posture, finger positioning, articulation, breathing technique, special fingering, embouchure, and so on are taught and reinforced by the teacher (Ley, 2004b: 25).

Metacognition includes a range of skills concerned with the self-awareness of learning processes. These include awareness of one's own strengths and weaknesses, strategies for approaching particular tasks, how to assess task requirements, planning skills, problem solving skills, monitoring skills, evaluating skills, and reflective skills. These skills must be acquired for musicians to be able to learn independently. However, to be used appropriately they need to be embedded within a musical knowledge base. It is, for instance, impossible to evaluate progress in learning to play a piece of music unless you have considerable knowledge about the nature of the end product which you wish to achieve. This requires a

substantial knowledge base. The teacher has a role to play in assisting in the development of the knowledge base and metacognition (Hallam, 1998: 124).

These skills being mentioned in relation to learning to play an instrument overlap with purposes of piano lesson that is part of fine arts high school music department program. At the fine arts high school music department, piano lesson is given as obligatory in 9th, 10th and 11th classes for one hour and as optional one in 12th class for one hour. In the piano lesson teaching program at fine arts high schools (MoNE, 2016a) aim for students to: (a) acquire the basic skills of piano education, (b) use the technical terminology related to the piano correctly and on-site, (c) grasp and apply the basic or intermediate vocal techniques that can be encountered during the piano education process, (d) grasp and apply the basic nuance terms, (e) grasp and use measurement forms, (f) grasp and use basic articulation and decoration terms, (g) vocalize the works in accordance with the period characteristics, (h) vocalize the works with musical sensitivity, (i) create a vocabulary from Turkish and world music works, (j) developing a sense of responsibility in their individual work. In order for an education program to be successful, it is required of all students to achieve the targets aimed with the program. In order to determine whether there are any insufficient particulars or any reverse processing issues as a result of application of program and to specify from which factors of program these interruptions are originating and to make necessary corrections, it is required for the program to be evaluated (Demirel, 2010: 193). Program evaluation model presented by Demirel (2010:204) is based on two fundamental issues. First dimension is the program itself and program analysis is recommended. In accordance, fundamental philosophy on which the program is based, centralized theories, objective-content-process-evaluation dimensions being the program elements and the relations in between them should be examined in order. In the second dimension of model it is recommended for the opinions of stakeholders who will implement this program to be separately evaluated; taking the opinions of the field experts, program development specialists, teachers, students, managers, inspectors, parents and non-governmental organizations about the program, respectively, will inform about the adequacy of the program. Self-evaluation of fine arts high school students in relation to piano playing skills will provide information about sufficiency of program or relevant deficiencies. In this respect, not knowing the impact of program on piano playing skills with respect to student opinions constitutes the problem of research.

The research aims to evaluate the impact of fine arts high school music department program on the piano playing skills in line with student opinions. In this respect to this, the level at which fine arts high school students considered the school program contributed to their piano playing skills has been determined and differences as per

gender and class have also been revealed.

METHODOLOGY

Research design

In this research survey design has been used to evaluate the impact of fine arts high school music department program on the piano playing skills of students in line with the opinions of students. Creswell (2009: 145) defines survey design as quantitative description of opinions of a population by studying a sample to generalize about the population. As the differences were investigated about the evaluation of student based on their genders and grade levels this research can also be accepted as a comparative survey.

Population and sample

The population of this research consists of students in music departments of fine arts high schools in Turkey. There are 82 fine arts high schools in 2018 (MoNE, 2019) and almost 7.000 students attend music departments. The sample of the research consists of 358 students attending five different music departments of fine arts high schools (Table 1).

Data collection instrument

A questionnaire was formed by the researcher to collect students' evaluations toward the impact of their school curriculum on their piano playing skills. The questionnaire involves 23 items which were produced based on the musical skills indicated by Hallam (1998) such as aural, cognitive, technical, musical, performance and learning skills, on instrument playing processes. Students were asked to rate the impact of the curriculum on their piano playing skills responding to each item on a 4-point Likert type scale ranging from „1“ (no improvement), „2“ (little improvement), „3“ (enough improvement) and „4“ (high improvement). Students were asked "How much improvement does your curriculum provide to you for the development of piano playing skills?" for their ratings to each item.

Data collection and analysis

Frequency distribution and percentage analysis were performed for each item to analyze the student evaluation toward the impact of the curriculum for their piano playing skills. Besides, chi square test was also performed to find out whether there is a statistically significant difference between student evaluations and their grade levels and genders.

FINDINGS

Table 2 shows that, students think that the curriculum has a positive impact on the improvement of aural skills in general except improvisational skills. The percentage of the students who think the curriculum has no impact on the improvement of improvisational skills is 13.4%, whereas 30.4% of students think the curriculum has limited impact. 43.8% of the students think that the curriculum has not improved the improvisational skills enough. Students also think that the curriculum is

insufficient to improve the skill of „knowing how music will sound without playing“ compare to other skills, except improvisation, in aural skills. In this aspect 8.7% of students think that the curriculum has no impact on improving this skill, whereas 33.5% of the students think that the curriculum has little impact.

Statistically significant differences are indicated in rhythmic accuracy and sense of pulse skills ($\chi^2_{(3)}=7.93$; $p<0.05$) and improvisational skills ($\chi^2_{(3)}=13.63$; $p<0.01$) among students' genders. Accordingly, higher percentages of female students think that the curriculum has more impact to improve rhythmic accuracy and sense of pulse skills than male students. On the other hand, higher percentages of male students think that the curriculum has more impact to improve their improvisational skills compare to female students. Based on the class levels only significant difference ($\chi^2_{(9)}=18.79$; $p<0.05$) is found in „knowing how music will sound without playing“ skill. Accordingly, students in higher class levels think that the curriculum has higher impact improving their particular aural skill than the students in lower classes.

As seen in Table 3, remarkably higher percentages of students think that the curriculum has no impact on the improvement of three particular skills under cognitive skills. These skills are composing (18.2%), transposition (17.6%) and understanding different musical styles & their cultural/historic context (13.7%) skills. When the percentages of students who think that the curriculum has limited impact to improve these particular skills summed up to no improvement group it is clearly seen that almost half of the students are not satisfied with the curriculum. On the other hand, students sorted memorizing music (35.5%), reading music (34.4%) and reading clefs (33.5%) skills in higher percentages to be improved by the curriculum. The sum percentages of the students who think that the curriculum contributes enough and high improvement in these skills are above 75%.

Statistically meaningful differences are found only in reading clef ($\chi^2_{(3)}=9.10$; $p<0.05$) and composing ($\chi^2_{(3)}=9.09$; $p<0.05$) skills among male and female students. Accordingly, higher percentages of female students think that the curriculum has more impact for the improvement of reading clef skill than male students. On the other hand, higher percentages of male students think that the curriculum has more impact for the improvement of their composing skills than female students. The only statistically meaningful difference is found in reading clef skill among class levels ($\chi^2_{(9)}=27.55$; $p<0.05$). Accordingly, the students in higher class levels think that the curriculum has more impact improving clef skills than the students in lower class levels.

As seen in Table 4, 14.8% of students reported that the curriculum has no impact on the improvement of their articulation skills. This percentage is seen as the highest score among other skills in no improvement level. When the percentages of students who think that the curriculum

Table 1. Frequency and percentage distribution of the sample.

Gender	f	%
Male	157	44.1
Female	199	55.9
Total	356	100
Grade	f	%
1 st . grade	95	26.6
2 nd grade	94	26.3
3 rd grade	88	24.6
4 th grade	80	22.2
Total	357	100
Students in Fine Art High Schools (FAHS)	f	%
FAHS1	15	4,18
FAHS2	82	22,90
FAHS3	114	31,84
FAHS4	108	30,16
FAHS5	39	10,89

Table 2. The impact of the curriculum on students' aural skills improvement.

Aural skills	Frequency (%)			
	No improvement	Little improvement	Enough improvement	High improvement
1. Knowing how music will sound without playing	31 (8.7)	120 (33.5)	153 (42.7)	54 (15.1)
2. Developing rhythmic accuracy and sense of pulse	15 (4.2)	74 (20.7)	183 (51.1)	86 (24.0)
3. Developing good intonation	14 (3.9)	73 (20.4)	181 (50.6)	90 (25.1)
4. Improvising: generating musical ideas internally and turning them into sound	48 (13.4)	109 (30.4)	121 (33.8)	80 (22.3)

Table 3. The impact of the curriculum on students' cognitive skills improvement.

Cognitive skills	Frequency (%)			
	No improvement	Little improvement	Enough improvement	High improvement
5. Reading music	13 (3.6)	53 (14.8)	169 (47.2)	123 (34.4)
6. Transposition	63 (17.6)	126 (35.2)	121 (33.8)	48 (13.4)
7. Reading clefs (treble and bass)	14 (3.9)	70 (19.6)	154 (43.0)	120 (33.5)
8. Understanding different musical styles and their cultural/historic context	49 (13.7)	135 (37.7)	130 (36.3)	44 (12.3)
9. Understanding the structure of music	30 (8.4)	112 (31.3)	159 (44.4)	57 (15.9)
10. Memorizing music	21 (5.9)	61 (17.0)	149 (41.6)	127 (35.5)
11. Composing	65 (18.2)	124 (34.6)	104 (29.1)	65 (18.2)

has limited impact to improve articulation skills summed up to no improvement group it is clearly seen 44.4% of the students are not satisfied with the curriculum. On the other hand, almost 70% of students (enough and high

improvement) reported that the curriculum has positive impacts on improving expressive tone quality. No statistically meaningful differences are found in technical skills of students depending on their genders and class

Table 4. The impact of the curriculum on students' technical skills improvement.

Technical skills	Frequency (%)			
	No improvement	Little improvement	Enough improvement	High improvement
12. Technical agility	33 (9.2)	104 (29.1)	151 (42.2)	70 (19.6)
13. Articulation	53 (14.8)	106 (29.6)	124 (34.6)	75 (20.9)
14. Expressive tone quality	24 (6.7)	84 (23.5)	184 (51.4)	66 (18.4)

Table 5. The impact of the curriculum on students' musical skills improvement.

Musical skills	Frequency (%)			
	No improvement	Little improvement	Enough improvement	High improvement
15. Expressive playing	30 (8.4)	103 (28.8)	162 (45.3)	63 (17.6)
16. Projection of sound	38 (10.6)	129 (36.0)	144 (40.2)	47 (13.1)
17. Controlling sound	27 (7.5)	93 (26.0)	167 (46.6)	71 (19.8)

levels.

As seen in Table 5, 10.6% of the students think that the curriculum has no impact on the improvement of projection of sound skill, whereas 36.0% of them think little improvement. Basing on these percentages it is clearly seen that students reported highest percentages of dissatisfaction for the impact of the curriculum on the improvement of projection of sound skill. Students think that the highest positive impact of the curriculum is on the improvement of controlling sound skill. Almost 66% percent of the students (46.6% enough improvement; 19.8% high improvement) reported that the curriculum has positive impact on the improvement of controlling sound skill. No statistically meaningful differences are found in musical skills of students depending on their genders and class levels.

As seen in Table 6, almost 70% of students think that the curriculum has positive impact to improve three performance skills; the skills of communicating with an audience, performers and coordinating with other performers. Only presenting to an audience skill seems to unsatisfactory to students that 13.1% of students think that the curriculum has no impact to improve this particular skill, 25.4% of them think limited impact (little improvement). There are no statistically meaningful differences in students' presentations skills depending on their genders. On the other hand, depending on the class level of the students statistically meaningful differences were found in both coordinating with other performers ($\chi^2_{(9)}=22.79$; $p<0.01$) and presenting to an audience ($\chi^2_{(9)}=19.33$; $p<0.05$) skills. Accordingly, students in higher class levels think more positive about the impact of the curriculum to improve the above mentioned skills than the students in lower class levels.

As seen in Table 7, almost 70% of students think that the curriculum has positive impact to improve the learning skills. The only statistically meaningful difference is found

in evaluating pieces that students perform based on their genders ($\chi^2_{(3)}=12.26$; $p<0.01$). Accordingly, female students think that the curriculum has more impact to improve their self evaluation skills toward the pieces they perform than the male students. No statistically meaningful differences are found in learning skills of students depending on their class levels.

RESULTS AND DISCUSSION

The studies being conducted with the aim to evaluate fine arts high school programs in line with teacher and student opinions (Afacan, 2016; Apaydınlı, 2009; Aşık Gökçe and Özdemir, 2020; İzgi Topalak and Yazıcı, 2014; Öztürk and Durak, 2015) reveal that many particulars relating to the program (gains, lesson books, physical space etc.) are insufficient. When this study is evaluated as a whole, it is understood that significant number of students did not think that program contributed to improve their piano playing skills.

Almost half of the students consider that school program did not adequately develop their improvising (43.8%), transposition (52.8%) and composition skills (52.8%) including production and performance of musical ideas, in relation to their piano playing skills. Hallam (1998: 223) indicates that composing, arranging and improvising provide excellent opportunities for young people to develop their creativity. They require a framework of musical knowledge for their creativity. They can be promoted by the provision of an appropriate supportive environment, stimulating materials, constructive evaluation and discussion of ideas. In sum, creativity develops over time and requires considerable effort. Therefore, based on the research outcomes it is possible to state that almost half of the students thought that their creativity is not developed adequately. Today's

Table 6. The impact of the curriculum on students' performance skills improvement.

Performance skills	Frequency (%)			
	No improvement	Little improvement	Enough improvement	High improvement
18. Communicating with an audience	31 (8.7)	73 (20.4)	151 (42.2)	103 (28.8)
19. Communicating with other performers	29 (8.1)	79 (22.1)	146 (40.8)	104 (29.1)
20. Coordinating with other performers	33 (9.2)	73 (20.4)	146 (40.8)	106 (29.6)
21. Presenting to an audience	47 (13.1)	91 (25.4)	136 (38.0)	84 (23.5)

Table 7. The impact of the curriculum on students' learning skills improvement.

Learning skills	Frequency (%)			
	No improvement	Little improvement	Enough improvement	High improvement
22. Learning my instrument independently	25 (7.0)	79 (22.1)	145 (40.5)	109 (30.4)
23. Evaluating pieces I performed	26 (7.3)	82 (22.9)	147 (41.1)	103 (28.8)

education programs make emphasis on creative thinking skills as part of competencies of 21st century (Battelle for Kids, 2019; MoNE, 2018; Official Gazette, 2013). When it is considered specifically, it is seen that creative thinking skills are among fine arts high school teaching programs (Piano, Western music theory and application, instrument group lessons etc.) (MoNE, 2016b, c). Development of students' composition, arrangement and improvising skills by means of teaching programs bears importance with respect to development of musical creativity.

Composing has enormous educational benefits. Active composing increases pupils' interest in music gives them an opportunity to control what they are doing and gives them a greater understanding of sound, structure and emotional expression (Hallam, 1998: 209). Introduction to composition can be provided with arranging. The principles involved in learning to arrange are similar to those of composition. Arranging can be very simple, for instance transposing melodies for different instruments, or very complex, for instance making sophisticated elaborations on a theme. In the process of arranging, pupils will develop and enhance a range of cognitive skills, for instance transposition, understanding of keys, understanding the range and capabilities of different instruments (Hallam, 1998: 217-8). Improvisation may be used to develop aural skills and generate ideas for composition. It enables pupils to explore musical patterns and processes to their musical imagination (Glover and Scaife, 2004, s.82). Improvisation is a very significant aspect of childrens' musical development and an important avenue of creativity (Webster, 1987, 2002, as cited in Ashley, 2009: 418).

It can be stated that their musical creativity will not be adequately developed, considering that significant number of students do not think the program makes enough contribution to their piano playing with respect to their transposition, improvising and composition skills.

Researches that were carried out in this context reveal that fine arts high school students did not consider themselves to be sufficiently competent with respect to musical hearing, reading and writing dimensions (Afacan, 2016; Öztürk and Durak, 2015). It can be stated that musical hearing, reading and writing skills will constitute a basis for development of musical creativity. These outcomes revealed with previous researches overlap with the opinion of students that program did not support piano lessons with respect to their improvising, transposition and composition skills in the current study. The situation where creative thinking skills are not developed as being aimed in fine arts high school piano lesson program (MoNE, 2016a) comes in front of us as a learning gap of program that needs to be considered.

Opinions of students in relation to contribution of program to their transposition, improvising and composition skills in piano lessons vary per classes. Therefore, even if class level gets higher, the students think that program does not make more contribution to develop these skills. However, what should be expected from the program as years passed from first class to fourth (last) class would be to make students think that they benefit more from the program in relation to their transposition, improvising and composition skills.

The studies being conducted show that there are certain rules relating to improvising and that these rules contain complex cognitive skills, creativity and that there is need for time and efforts to improve these (Ashley, 2009; Berkowitz, 2009; Biasutti, 2015; McPherson, 1997; Tafuri, 2006). It is understood that fine arts high school program does not make effective use of the time for developing improvising skills. Based on the fact that students think that the program does not provide sufficient contribution to these skills and that there is no differentiation with respect to classes, it can be stated that program is not sufficient at these dimensions.

However, majority of students in advanced classes think that program developed skills of hearing the music seen in the notes and reading clefs (treble and bass). However when all these skills that can be obtained within scope of musical creativity are considered, it is difficult to state that program is effective. Besides having no differences between classes with respect to other skills are thought-provoking with respect to the effectiveness of program.

When the mentioned skills are evaluated with respect to student genders, certain differences are determined. It is seen that male students consider that program is more effective in developing improvising, production and performance of musical ideas and composition skills with respect to female students. On the other hand, female students consider that program is more effective in developing rhythmic accuracy and sense of pulse skills, reading clefs (treble and bass) skills to evaluate the works being played with respect to male students.

In the study it is seen that half of the students (51.4%) opine that school program did not sufficiently develop skills to understand the musical styles and historic context of the works. Students' being able to recognize and evaluate the music works they hear as per their periods and types in fine arts high school program are among the objectives of Turkish and Western Music History lesson (MoNE, 2016d). Say (2010: 17) has stated that musical history is the history of music production awareness, composition techniques, musical forms, music eras or styles, instruments, and musical writings. According to Reimer (1970), in order for students to understand music and to improve the value they attach to music, it is required for them to understand how music is written (composed) better and to see how the elements contained are combined in order to create an emotional perception. This development will originate from students' experiencing the enthusiasm of music (as cited in Hunsaker, 2007: 28). Therefore, students' expressing that they are not developed enough with respect to musical history and styles, makes one consider that they have deficiencies relating to musical understanding skills and valuation skills.

In the research, most of the students think that the program improved their rhythmic accuracy and sense of pulse skills, the ability to play with the right sounds, note reading skills, the ability to read clefs (treble and bass), the ability to memorize music, their ability to acquire speed technically, skills to have an expressive tone (sound) quality while playing, their ability to express meaning, and improve their ability to provide control on sound. These skills overlap with objectives relating to fine arts high school piano lesson. Therefore, it can be stated that students consider that fine arts high school program improved their basic piano playing skills.

Most of the students think that program developed communication skills with spectators, communicating with those in the group while playing instruments and collaboration skills. In this respect, it can be stated that

piano lesson that is part of fine arts high school program aiming to improve communication and collaboration skills reaches its purpose with respect to the students. Besides, as the class level increases, it is seen that while playing with other instruments, skills of collaborating with those in the group and skills of performing in relation to auditions are developed. With the passing years, it can be thought that this outcome is revealed as students take part in collective musical works such as chorus and chamber music and as they take more part in auditions etc. Hence, it can be stated that program is effective in developing skills of students to communicate with spectators, to communicate with others in the group while playing instruments and skills to collaborate.

Most of the students think that program developed their skills to learn how to play instruments independently and their skills to evaluate the works they played. Based on this result it can be stated that piano lesson that is part of fine arts high school program aiming to improve individual working skills reaches its purpose in relation to the students.

Conclusion

Based on all the results obtained within context of this study, the weak and strong aspects of fine arts high school program for developing piano playing skills has been revealed. Further studies can be done for more indepth examination using qualitative approaches such as observations and discussions especially in relation to dimensions where students do not consider the program as adequately contributing to development of their piano playing skills.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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