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Determining the Views of Music Teachers at BILSEMs[1] on the Music Field Student Diagnosis Process: The Case of Bursa

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Abstract

Science and Art Centers (BILSEM) are state institutions in Turkey operating under the Ministry of National Education, which aim to ensure that gifted students in Turkey acquire a scientific study discipline and develop their creativity in line with their talents and interests. In these centers, there are three different special talent fields: music, visual arts and general talent. In this study, it was aimed to determine the views of music teachers working at Science and Art Centers (BILSEM), which are activity-based centers where gifted students in Turkey receive education, about the student diagnosis process of music field. Music teachers working at BILSEM in the city center and districts of Bursa participated in the study. The study is in the case study research design, one of the qualitative research methods. The data were obtained using a semi-structured interview form. The acquired data were analyzed using the directed content analysis method. In this direction, 5 themes and 34 codes were determined. In the study, most of the teachers stated that group (Tablet) scanning application for the student diagnosis process was not necessary for prospective music students, that the content and criteria of the questions related to aural skills and memory should be changed and that the content related to the field of musical awareness was insufficient and needed to be improved. In addition, the music teachers evaluated the conditions of the exam environment and expressed different opinions on the subject. At the end of the study, various suggestions were made on the subject in the light of the obtained data and evaluations.

Key words: BILSEM, centers for gifted students, diagnosis, music course, gifted students

1. Introduction

One of the most important aims of education systems is to meet the needs of individuals for their competences and development characteristics. This field, called special education in Turkey, operates effectively in formal education. The concept of special education is not programmed only for the development of individuals with learning disabilities and similar disabilities. There are also differentiated curricula for students who are well above their normal learning capacity and talents and these curricula are implemented in our country. One of the institutions that provide special training to gifted individuals in Turkey is Science and Art Centers (BILSEMs).

[1] In Turkey, the abbreviation of science and art centers is BILSEM. Since these institutions are generally referred to with this abbreviation, they are used in this way in the study.

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BILSEMs are special education institutions established to provide educational support to students who attend formal education institutions and who are diagnosed as gifted in the fields of general mental talent, visual arts talent or musical talent in order to improve their skills and use their capacities at the highest level (Ministry of Education [MEB], 2019a). There is at least one BILSEM in each province in Turkey, which started to operate in 1995 as the institutions where gifted students studying in formal education receive educational support after school, outside the normal education program from elementary school until the end of high school in order to develop their potential (Sak et al., 2015, p. 119). Briefly, Science and Art Centers are activity-based institutions that support the formal education of gifted students.

In the Special Education Services Regulation of the Ministry of National Education published in the Official Gazette dated 31.05.2006 and numbered 26184, it was stated that the purpose of establishing Science and Art Centers (BILSEM) was to ensure that gifted students of pre-school, primary, secondary and high school age be aware of their individual talents and that they use their capacities at the highest level (MEB, 2016, p. 2). Students are admitted to different programs in BILSEM. These programs are adaptation, support training, realizing individual talents, developing special talents, project production and project management. The aim of these programs is to enable students to realize their potential and improve them. Gifted students in the talent field of music and visual arts are directly admitted to the special talents developing program. The first BILSEM in Turkey was established in 1995 in Ankara. Today, BILSEM serves gifted students in 81 provinces (Güneş, 2018, p. 258).

The principles regarding the implementation of the developing special talents program in BILSEM are as follows:

a. Scientific and artistic activities based on students' special talents are intensified during the development of special talents program period.

b. Developing special talents program is prepared in a disciplinary or interdisciplinary structure in accordance with the student-centered education approach.

c. During the implementation of the special talents development program, students are guided in this direction, taking into account the interdisciplinary relations. Also, it is ensured that the students gain in-depth and advanced knowledge, skills and behaviors in the discipline/disciplines.

d. The relevant field is introduced in the special skills developing program prepared for students who are diagnosed in the field of visual arts and music. Activities are planned to make students be aware of their own talents in the fields and after these stages in-depth artistic activities are started (MEB, 2019b, p. 9).

Diagnosed at an early age and trained in an education approach supported by special programs, gifted individuals are aimed to achieve their existing performance at the highest level. Hence, as in different countries, special education institutions have been established for gifted individuals and different diagnostic methods have been used in our country since the Ottoman period (İdin & Kayhan, 2016, p. 19). Today, an individual-based diagnosis approach is used for the determination of gifted students in BILSEMs. In this approach, students are identified with the help of psychometric tools. Performance-based measurement tools are used in addition to intelligence tests while determining the students for art education programs and intelligence tests are used while determining the students for general talent program that offers academic education (Sak, 2017, p. 101-103). In BILSEMs, diagnoses for each field are made for students of the 1st, 2nd and 3rd grades. If the student entering the diagnosis is deemed sufficient, he / she starts education in the next academic year. The first stage of the diagnostic process is BILSEM Group Scanning System. Student candidates in each field (Music-Visual Arts-General Talent) must enter the group (Tablet) scanning. In the group scanning exam, an exam is carried out digitally on a tablet. After the success in this exam, the individual evaluation stage begins. In the group (Tablet) scanning stage, an intelligence test is applied. Organized by the Ministry of National Education,

General Directorate of Special Education and Guidance unit, student selections for BILSEMs are held regularly every year. The selection process starts with the nomination of the students by the class teachers as candidates through the e-school system. The second step is to participate in group (Tablet) scanning, which is described as group scanning. The last step is to take the talent exam in the fields of visual arts and music and to take the intelligence tests in the field of general talent for the students who pass the score determined according to the Ministry in the group (Tablet) scanning.

In the group (Tablet) scanning application, questions appropriate to the grade levels of the students are asked. The points are calculated based on the correct answers given by students, and wrong answers do not affect correct answers. Group scanning application threshold scores are determined separately for each of the general mental, visual arts and musical talent fields according to the average of Turkey. A student who gets a certain score as result of the group (Tablet) scanning is entitled to continue the second stage. The second-stage exams are in the form of talent exams. These exams are applied by teachers who are experts in their field and who have worked in these institutions in line with the criteria set by the Ministry of Education, Special Talent Development Department. The exams are held on the same dates and in the same content around the country.

In 2018-2019, there were two sections in the music field individual evaluation process. These sections are "Aural Skills / Memory" and "Musical Awareness". Table 1 shows the contents of the sections mentioned above and the number of questions.

Table 1. Content of music field individual evaluation and number of questions[2]

Content of Music Field Individual Evaluation	**Number of Questions**
Question Types of Aural Skills / Memory	
Single Note Repetition	4
Double Note Repetition	4
Three Notes Repetition	2
Melody Repetition	3
Rhythm Repetition	2
Modulation	2
Question Types of Musical Awareness	
Tempo Difference	1
Dynamics Awareness	1
Articulation Awareness	1
Instrumental Tone Difference	1

In the diagnostic exams held in 2018-2019 and 2019-2020 academic years, the questions were asked to students via computers using digitally prepared audio files. Accordingly, the answers were evaluated on the internet. The scoring was done by

[2] While creating Table 1, Music Talent Fields Individual Evaluation Application Principles were used.

the Ministry and the results were announced. With this application, it has been tried to ensure that student selections be carried out simultaneously by the same method throughout the country.

When the studies on the education of gifted learners conducted abroad are examined, it is seen that there are different practices in different countries. England, which is among the countries that give importance to education of gifted students, supports music education with different institutions such as Yehudi Menuhin Music School, Royal Ball School and Choir schools. In addition, schools where music and fine arts programs for special talents are conducted in parallel with general education continue their education (MEB, 2013, p. 48). In the exams conducted for diagnosing gifted and talented students in our country, stages such as note repetition, melody and rhythmical memory, singing and playing instruments, which are performed similarly in countries such as the USA, constitute the contents of the exam as a guide in determining musical talent (MEB, 2018, p. 5).

2. Literature Review

García-Martínez, Gutiérrez Cáceres, Luque de la Rosa and León (2021) in their study examined the trainings carried out in the world for gifted children. In the systematic review, it was determined that there were many articles about strategies and models, but the lack of performance-oriented pre-post methodological designs related to the quality of the studies constitutes a problem. As result of their research it was stated that more research is needed with quasi-experimental designs with this population to increase the motivation of gifted students and to accommodate individualized adaptations.

Solovovo, Ezhod and Yashkin (2020) address the problem of teachers' readiness to interact with gifted students in the process of continuous improvement. The article, which includes the regulatory and legal regulations of the Russian Federation on education and gifted education, also presents the content analysis of the studies on gifted students.

Andreasen (2018) stated that there is no national policy on gifted and talented education in Australia, as each region determines its own educational strategy and guidelines, which created big problems. She mentions that in the majority of regions performance audition is first of all emphasized, while this way of diagnosing musical abilities is too subjective. She analyzed Gordon's Advanced Measures of Music Audiation (AMMA) and Gordon's Iowa Test of Music Literacy (ITML) applied in some regions and found that there is a significant relationship between music potential defined by these tests and achievement and that the predictive value of these tests is high enough. Both tests are applicable and computerized. The AMMA is an individual 30-item aural test for listeners to discriminate between pairs of melodic patterns, either identical or with changes, in their tonal and rhythmic properties. ITML defines music literacy

Law and Zentner (2012) developed a test that measures perceptual music skills in more than one area in their study. The test called Profile of Music Perception Skills (PROMS) includes tonal (melody, pitch), qualitative (timbre, tuning), temporal (rhythm, rhythm-to-melody, accent, tempo), and dynamic (loudness) fields. To define its reliability, Test-retest proicedure was applied and the reliability of .88 was found, with p<.01 (Pearson's r = .90, Spearman's rho = .88; both p's<.01). The test validity was compared to AMMA test and test results were found to correlate strongly with it

Akıncı (2018) in his study discussed the way and stages of the identification process of gifted students by music teachers. The stages of the diagnosis process determined by him are as follows: (1) Recognizing that the student is gifted in the field of music, (2) Initiating official processes - official initiatives of the music teacher, (3) Conducting the gifted student's pre-post diagnosis meeting and examination, (4) Things to do after the diagnosis meeting is finished and the result (Akıncı, 2018, p. 106-109).

Many studies have been carried out about BILSEM. One of these studies is the study conducted by Özden Ebeperi (2019), which examines the effects of the trainings that BILSEM music graduates receive at these institutions on their professional development. In the study, 18 students who studied at least two years in the field of music and graduated from BILSEM were interviewed. In the light of the data obtained, it was stated that the education received at BILSEM contributed to the students' self-discovery, creativity and communication skills. In another study, Mertol and Çetin (2017) tried to determine the creativity fields of BILSEM music field students. It was determined that the music field students evaluated with the Kaufman Fields Creativity Scale got the highest score in academic creativity.

Akça, Şen, and Kurtaslan (2019) conducted a metaphor analysis in their study, where they tried to determine the perceptions of BILSEM music field students about the concept of music. A hundred secondary school BILSEM music field students studying in different provinces participated in the study. The students were given a form related to the concept of music and asked to fill in that form. In line with the findings obtained in the study, it was determined that the metaphors produced by the students were of a quality that would emphasize different aspects of music.

In addition to the studies in the field of music, there are many studies about BILSEM in general. In her article, Kaya (2013) examined the programs and models implemented in Turkey in the education of gifted children, and evaluated the education system in BILSEMs, which has become widespread in recent years. As result of the research, it was recommended to examine the examples and policies applied in developed countries in the education of gifted students, and to develop models and policies suitable for Turkish conditions, together with our cultural richness from the past.

Sarıtaş, Şahin and Çatalbaş (2019 aimed to determine the opinions of parents who are at primary school level and are students at BILSEM. In their research, the results of the contributions of BILSEM, the problems encountered and the solution suggestions were obtained. Among the problems identified in the study are the physical inadequacy of the buildings, teacher problems, curricula, guidance services, communication problems, and lesson time planning. As result of the research, it is suggested that working with other stakeholders related to BİLSEMs, teachers should be trained according to the features that are sufficient for gifted children, the content of the program should be designed more effectively in cooperation with universities so that students can use their creativity, and guidance services should be increased.

In their research, Kir and Akbaşlı (2021) interviewed 18 BILSEM teachers working in the province of Ankara and interviewed them about being a teacher in these institutions. While teachers stated that working with gifted and talented students is motivating and improving, they expressed negative opinions on parent expectations, administrators' attitudes, working hours and lack of technical equipment.

The research by Çamdeviren (2014) aimed to identify the difficulties that arise in parents' interactions with their children and the difficulties their children encounter in their attendance to the science and art center and in the process. As result of the research, it was determined that families had difficulties in different aspects, such as; recognizing and identifying special abilities of children, answering their questions, being aware of their mental, social, affective and personality traits, communication skills and solving their problems.

In her research, Bahtiyar (2019) examined the development of BILSEM students' Socratic questioning levels. Within the scope of the research, Socratic inquiry seminars were applied for 10 weeks through activities, videos and reading passages, and the data diversity method was used. As result of the research, it was determined that the questions asked by the students during the Socratic inquiry seminars developed from a low to a high level.

Atlı and Balay (2016) aimed to determine student perceptions regarding the sustainability of gifted education at BILSEM. Accordingly, students evaluated BILSEM in terms of physical conditions, equipment and materials, and teachers.

Çetin and Doğan (2018) identified the problems faced by mathematics teachers working in BILSEM. In the study, the teachers evaluated the problems they experienced in BILSEM in terms of the problems they encountered in the learning and teaching process and, the problems they encountered in terms of physical equipment, parents and administration/legislation.

2.1. Purpose

Although different studies have been conducted on BILSEMs, there are no studies regarding the student diagnosis process of musical giftedness in these centers. The student selection process for BILSEM, which is one of the important institutions that aims to support gifted students in our country, is very important and should be carried out carefully. Thus, the views of teachers who participate in the student diagnosis process have to be assessed. The researchers believed that taking the views of the teachers involved in the selection of the students, who will study at BILSEM, about the student diagnosis process and making suggestions accordingly to eliminate the deficiencies, if any, will contribute to the process positively. This study aimed at determining to what extent the applications for BILSEM music field diagnosis process is effective in the light of the views obtained from the teachers who are involved in the process, to determine the positive and negative aspects and to make suggestions about the deficiencies.

2.2. Research Questions

In line with this aim, the research problem of the study was determined as the need to determine music teachers' working at Science and Art Centers views about the student diagnosis process of the music field. In the study, answers were sought for the following sub-questions, too:

In the student giftedness diagnosis process of music field;

1. What are the views of the music teachers working at BILSEMs regarding the students' participation in the group (Tablet) scanning stage first in student selection?
2. What are the views of the music teachers working at BILSEMs about the individual evaluation stage?
3. What are the suggestions of the music teachers working at BILSEMs about student diagnosis process?
4. This study is limited to music teachers working at BILSEMs in the city of Bursa.

3. Methodology

3.1. Methods

This study is a qualitative research conducted in order to determine the diagnosis process in the selection music field students of BILSEMs. Qualitative research is the general name of research approaches used to analyze the ways people perceive and interpret the world (Güler et al., 2015, p. 30). Yıldırım and Şimşek (2000) defined qualitative research as a "research method in which qualitative data collection methods such as observation, interview and document analysis is used and a qualitative process is followed to reveal perceptions and events in a realistic and holistic manner in the natural environment" (p.14). Qualitative methods are used when trying to understand the basic meanings and preferences underlying the situations (Berg & Lune, 2019, p. 13). In this study, one of the qualitative research methods, case study research was used. Case study research is the revealing of the data

collected by observation, interview and data collection tools such as documents about a current situation or events that have occurred in a certain time (Creswell, 2020, p. 99).

3.2. Study Group

Typical case sampling, one of the 'purposeful sampling' methods, was used in the study. Typical case sampling is used in cases where a new application or a new situation is desired to be introduced (Yıldırım & Şimşek, 2000, p. 71). The study group consists of four music teachers working at BILSEMs located in Bursa and a music teacher who worked in BILSEM for many years and also took part in the diagnostic exams. Science and Art Centers in Bursa are Osmangazi Kâmil Tolon BILSEM, Nilüfer Halil İnalcık BILSEM and Mustafakemalpaşa Hamzabey BILSEM. In the study, the names of the participating teachers were coded as P1, P2, P3, P4, and P5 for confidentiality reasons. Table 2 contains the demographic information of the study group.

Table 2. Demographic information of the study group

Participant	Gender	Education Status	Work Experience / Year	Graduation	Experience as Music Teacher at BILSEM	Number of Diagnostic Exams Participated
P1	Female	Master's Degree	23	Music Teaching	3 years	2
P2	Female	Master's Degree	20	Music Teaching	4 years	2
P3	Male	Master's Degree	32	Music Teaching	3 years	15
P4	Male	Bachelor's Degree	18	Music Teaching	5 years	4
P5	Male	Bachelor's Degree	13	Music Teaching	3 years	2

3.3. Data Collection Tools

Interview, which is one of the data collection tools in qualitative research, was used in the study. Karasar (1998) stated that the interview method has three main purposes: cooperation, increasing self-confidence and collecting research data. Balcı (2005), on the other hand, emphasized the importance of encouraging the individual to obtain complete and accurate information in the interview method and eliminating the biases of the individual. Semi-structured interview questions developed by the researchers were prepared for the interviews. In the semi-structured interview, the questions are prepared in advance, but the order of the questions can be changed by looking at the individuals and conditions and the questions can be explained in more detail when necessary (Çepni, 2018). The semi-structured interview method is frequently used in qualitative research in order for the researcher to collect the data s/he wants to obtain about the subject and to allow researcher to change questions according to the changing conditions during the interview (Güler et al., 2015, p. 115). In this study, 10 questions were asked to the music teachers working at BILSEM in order to obtain their views about the student diagnosis process of music field.

3.4. Data Analysis

In qualitative research, data analysis means organising and coding the data and the discussion of the data in figures and tables by reducing the codes to themes (Creswell, 2020, p. 182). The data obtained in this study were analyzed by using content analysis method. The main purpose of content analysis is to reach the concepts that will describe or explain the data obtained. In this process, situations that cannot be noticed descriptively can be revealed through content analysis (Yıldırım & Şimşek, 2000, p. 162).

Content analysis varies according to coding styles. Creating the initial codes according to theory and literature of research before starting research is called directed content analysis. If needed, new categories and codes can be added during directed content analysis (Güler et al., 2015, p. 344). Directed content analysis was used in this study. Themes, sub-themes and codes have been created in line with predetermined concepts. Five themes and 34 codes were determined in the study. The themes, categories and codes determined after the interviews were presented to the evaluation of two experts in the field of music education and a consistency analysis was conducted. The consistency percentage calculated using the formula "P (Percentage of Consistency) = Na (the number of items coded the same in both forms) * 100 / Nt (the total number of items in one form)" (Çepni, 2009, p. 196) was found to be 88.23. Since this value is over 70, it is accepted that the reliability criterion of the research has been met. Themes and codes were finalized in line with expert opinions. In addition, the views of the participants on the relevant themes were coded and presented in tables and direct quotations of participants were given in order to increase the reliability of the research.

4. Findings and Results

In this section, the views of five music teachers who have been working at BILSEMs in Bursa about the student diagnosis process of the music field were given. As result of the interviews, informing, content, process, environment and suggestions themes were obtained from the views of the participants. The determined theme, category and codes are shown in Table 3.

Table 3. Themes, categories and codes

Themes	Categories	Codes
Informing		Written information form/instruction
		Oral
		E-conference
Content	Group (Tablet) Scanning	Appropriate
		Not Appropriate
	Aural Skills / Memory	The number of questions should change
		There should be a change in the content
		Scoring should change
	Musical Awareness	Content should be developed
		Insufficient
		Should be shortened
		Successful
		Unnecessary

Process / Method of Asking Questions	Positive	Error-free vocalization
		Equality among students
		Reliability
		Convenience for the commission
	Negative	Hearing problems / poor recording due to the sound system
		Inability to interfere
		Repetition difficulty
		Repression
Environment		Quality sound system of the same brand and model
		Comfortable for commission members
		Acoustically appropriate
		The necessary instruments are available
		Appropriate physical conditions
Suggestions	Questions	Suitable for level
		From simple to difficult
		Featured in terms of content
		Live vocalization
	Application	Consent of the music teacher
		Observation of commission / Music teacher
	Evaluation	Scale
	Calendar	Simultaneously

4.1. Findings Regarding the Informing Theme of the Music Field Student Diagnosis Process

The views of the music teachers working at BILSEMs about the way of informing about the music field student diagnosis exam are presented in Table 4.

Table 4. Music teachers' views on the informing stage of the music field student diagnosis exam

Themes	Codes	Participants
Informing	Written information form/instruction	P1, P2, P5
	Oral	P2
	E-conference	P2, P3, P4

When Table 4 is examined, it is seen that the participants were informed with a written form, orally and with e-conference methods before the music field student diagnosis exam. In addition, the participants stated that the instructions regarding the content of the exam were prepared and delivered to them or they were informed in detail by the commission preparing the exam via e-conference method. Participants' views on the theme of 'informing' are given below.

4.1.1. Written information form / instruction: three participants stated that they were informed in written form through instructions before the exam. "The instructions were examined on the exam day and the information process developed in this way" (P1). "There was also an instruction about the content of the exam sent from the head office" (P2). "An information form was given to me with the official letter attached" (P5).

4.1.2. Oral: P2, who had taken part in the exam twice, stated that he was informed by the principal of the institution as well as with instruction form and e-conference method. "The first exam I took part in was not a digital one. We were preparing the questions with a commission. The principal of the institution informed us about the content of the exam" (P2).

4.1.3. E-Conference: three of the participants stated that they were informed in detail by e-conference method before the exam. "In my second exam assignment, information about music diagnosis was given to all commission members via e-conference" (P2). "The Ministry informed the commission members through video conferencing about the diagnostic exams of the music field I attended in the last three years. It was reported that the questions prepared by the Ministry at different difficulty levels would be used in the "Music Field Diagnosis Process" and that these questions would consist of contents such as single note, double note, three notes, melody repetition and rhythm repetition. In addition, issues such as the questions to be prepared by the Ministry, how to use the created sound recordings in the "Music Field Diagnosis Process" and how to transfer them to the students were explained" (P3). "The commission was informed through video conference by our coordinator and academicians who prepared the exam questions" (P4).

4.2. Findings Regarding the Content Theme of the Music Field Student Diagnosis Process

The participants were asked about their views on the content of the diagnostic exam of BILSEM music field. From the data obtained, codes for Group (Tablet) Scanning, Aural Skills / Memory and Musical Awareness categories were obtained regarding the theme of content. The codes obtained are shown in table 5. In Table 5 it is seen that there are those who find the BILSEM student diagnosis process group (Tablet) scanning stage appropriate and those who do not think so, as they have different views on the content of the individual evaluation stage.

Table 5. Music teachers' views on the content of the music field student diagnosis exam

Theme	Categories	Codes	Participants
Content	Group (Tablet) Scanning	Appropriate	P1, P4
		Not Appropriate	P2, P3, P5
	Aural Skills / Memory	The number of questions should change	P4, P5
		There should be a change in the content	P1, P2, P3, P5
		Scoring should change	P1, P2
	Musical Awareness	Content should be developed	P3
		Insufficient	P5
		Should be shortened	P2
		Successful	P1
		Unnecessary	P4

Participants' views on the theme of "Content" are detailed below.

4.2.1. Group (Tablet) Scanning

4.2.1.1. Appropriate: Two participants stated that only individual evaluation was not sufficient, group (Tablet) scanning application should also be carried out in the music field student selection process of BILSEM. "For the music field, talent alone is not sufficient. I think there should be tablet exam, too" (P1). "I definitely find it positive, but some other questions should be asked in the tablet exam" (P4).

4.2.1.2. Not Appropriate: Three participants did not consider the group (Tablet) scanning application necessary in the selection of students in the field of music. "I think the tablet exam is not suitable for music field students. In order to avoid clutter in the music field, a text containing the characteristics of the students to be selected in the field of music should be sent to the classroom teachers. I think that the announcement of guiding students with these characteristics may be sufficient. Music field exam is sufficient for selection" (P2). "I think that it is not necessary for students who want to enter the field of music to enter the tablet scanning and that at least some of the "highly talented students" may be excluded from the" "Music Field Diagnosis Process" "(P3). "I don't find it appropriate. In the diagnostic exams we completed, I observed that many students who passed the tablet exam were insufficient in the field of music" (P5).

4.2.2. Aural Skills / Memory

4.2.2.1. The Number of Questions Should Change: Two participants stated that the number of questions in the individual evaluation stage of the BILSEM music field student selection should change: "Single note (4), double note (4), three notes (4), singing according to the level (1), melody repeat (2), rhythm repeat (2), being able to enter the song from different tones (2)" (P4). Melody-rhythm repetition (2), one note (4), double note (4), three notes recognition (3), singing (singing at least two predetermined pieces in different tones), playing a string of three notes, knowing which one is the highest note in the string" (P5).

4.2.2.2. There Should Be Some Change in the Content: Four participants stated that some change should be made in the content of the individual evaluation questions of the student selection of BILSEM music field. "Hearing one note (4 questions), two notes (4 questions), three notes (4 questions), and the memory part should be in two different ways, melody repetition (at least 2 melodies), and rhythm repetition (at least 2 rhythms). In the exam, students' tonal ability should also be checked and students should be asked to sing a poem s/he sees for the first time" (P1). "The melody and rhythm scores are very high and there is a musical challenge, too. Hence, the students cannot succeed even if they answer all of the other questions correctly. In order to choose the talented student, I think, there should be a question where creativity is put forward in the end. It can be like singing a melody to a given lyric and enriching the accompaniment with the rhythm instruments s/he chooses" (P2). "All intervals (one note, two notes, three notes) that occur within an octet and at least two pieces of four notes (intervals can be moved to student volume boundary) can be asked. Rhythm patterns consisting of melody, simple and mixed measures suitable for the student voice boundary can be used. Also, for the musical creativity section, students may be asked to complete a melody and rhythm motifs, compose a melody for a poem, present a melody or song of their own and play the instrument they can play, if any" (P3). "I think that the musical awareness section is insufficient in measuring musical ability" (P5).

4.2.2.3. Scoring Should Change: Two participants stated that the scoring of the individual evaluation stage of the BILSEM music field student selection should be changed. "Hearing section should be 60 points, memory section should be two different ways, melody repetition 20 points and rhythm repetition 20 points" (P1). "I do not think of any difference in the way question distribution is applied. Only scoring should change" (P2).

4.2.3. Musical Awareness

4.2.3.1. Content Should Be Developed: One of the participants emphasized that the content of the musical awareness section of BILSEM music field student selection individual assessment should be developed. "There may be questions about distinguishing the differences in timbre of instruments. By listening to a suitable piece, the student can be asked to talk about how many different instruments are in the piece, what instruments they may be, what he notices about the nuance and rhythmic structure of the piece and what he feels about them" (P3).

4.2.3.2. Insufficient: One of the participants stated that the content of the musical awareness section of BILSEM music field student selection individual assessment was insufficient. "I think that the musical awareness section is insufficient in measuring musical ability" (P5).

4.2.3.3. Should Be Shortened: One of the participants stated that the content of the musical awareness section of BILSEM music field student selection individual assessment should be shortened. "I think that the musical awareness section should not be held too long. Speed, dynamics and instrument awareness are sufficient" (P2).

4.2.3.4. Successful: One of the participants stated that the content of the musical awareness section of BILSEM music field student selection individual assessment was successful. "I think the current awareness questions are successful" (P1).

4.2.3.5. Unnecessary: One of the participants stated that the content of the musical awareness section of BILSEM music field student selection individual assessment was unnecessary. "There shouldn't be a musical awareness section, it's unnecessary. There should be a rhythmic perception part created by child" (P4).

4.3. Findings Regarding the Process / Method of Asking Questions of the Music Field Student Diagnosis Exam

The Science and Art Center music field student identification process is carried out by having students listen to digitally recorded sounds, melodies and rhythms through the audio system.

Table 6. Music teachers' views on the process and the method of asking questions of the field of music student diagnosis exam

Theme	Categories	Codes	Participants
Process / Method of Asking Questions	Positive	Error-free vocalization	P3, P5
		Equality among students	P2, P3, P5
		Reliability	P1
		Convenience for the commission	P3
	Negative	Hearing problems / poor recording due to the sound system	P2, P3, P5
		Inability to intervene	P1, P3, P5
		Repetition difficulty	P5
		Psychological pressure	P4

Participants were asked their opinions about the process and digital questions of the BILSEM music field student diagnosis exam. From the data obtained, codes for the "positive" category of the theme of "process/method of asking questions" digitally were obtained. The codes obtained are shown in table 6. Participants' views on the "Process / Method of Asking Questions" theme are given below.

4.3.1. Positive

4.3.1.1. Error-Free Vocalization: Two participants stated that asking questions digitally had positive aspects. "…. Can be thought to prevent errors or repetitions that may occur while asking questions" (P3). "It reduces to zero the acoustic errors in playing" (P5).

4.3.1.2. Equality Among Students: Three participants stated that asking the questions digitally would provide equality among the students. "I think questions being digital is pretty good in that the students will take the exam in the same way. Let's think like this, the teacher in province A will play at one speed and the teacher in province B will play at a different speed. I think it will also continue according to the perception of the student. Considering these, I say digital exam is good" (P2). Asking questions prepared digitally by the Ministry in the same way at all BILSEMs ensures unity and equality in the process of diagnosis" (P3). Asking the questions to all students in Turkey from a single source ensures equality among students in all exam regions" (P5).

4.3.1.3. Reliability: One of the participants stated that asking questions digitally increases the reliability. "The fact that every student is asked in the same way increases the reliability of the exam" (P1).

4.3.1.4. Convenience for the Commission: The third participant stated that asking the questions digitally provided convenience for the commission. "It can be thought that it takes the burden of the commission in preparing questions and prevents mistakes or repetitions that may occur while asking questions" (P3).

4.3.2. Negative

4.3.2.1. Hearing Problems / Poor Recording Due to the Sound System: Three participants emphasized that asking questions digitally might cause hearing problems arising from the sound system. "The digital nature of the questions causes children not to perceive sounds clearly. No sound is heard like played from the piano. Perception is better in live play" (P2). "In cases where the asked notes are not suitable for the student's voice boundary, it may prevent some students from vocalizing correctly even if they hear them correctly, since they do not give the chance to move the sounds to a different sound field" (P3). "In cases where the sound system does not work properly and the questions are not perceived correctly, it becomes difficult for students to answer the questions." (P5).

4.3.2.2. Inability to Intervene: Three participants stated that asking the questions digitally restricted the intervention to the questions in any way. "Questions come very quickly. We witnessed the failure of many talented students due to their inability to adapt to the pace of the exam" (P1). "In cases where the asked notes are not suitable for the student's voice boundary, it may prevent some students from vocalizing correctly even if they hear them correctly since they are not given a chance to move the sounds to a different sound field" (P3). "It prevents intervention situations" (P5).

4.3.2.3. Repetition Difficulty: The fifth participant stated that asking questions digitally creates a repetition challenge. "It makes repetitions difficult" (P5).

4.3.2.4. Psychological pressure: The fourth participant stated that asking questions digitally created repression on students. "Real talent is not measured, on the contrary, we lose the talent and it creates pressureon the child. Questions should never be asked from the computer, flexibility should be provided to the commission in practice and the questions should be asked according to the level of the children" (P4).

4.4. Findings Regarding the Environment Theme of the Music Field Student Diagnosis Process

Participants were asked about their views on the environment conditions of the individual assessment part of the BILSEM music field student diagnosis process. Codes for the theme of environment were obtained from the obtained data. The codes obtained are shown in Table 7.

Table 7. Music teachers' views on the environment of music field diagnosis exam

Theme	Codes	Participants
Environment	Quality sound system of the same brand and model	P3, P5
	Comfortable for commission members	P2
	Acoustically appropriate	P1, P3, P4
	The necessary instruments are available	P3
	Appropriate physical conditions	P3

When Table 7 is examined, it is seen that five codes were obtained for the theme of environment. Accordingly, the participants attach the most importance to acoustics in the exam environment and emphasize that the same brand and model sound system should be used in order to ensure equity and avoid problems. In addition, it was stated by the participants that the commission members should feel comfortable, have the necessary instruments and there should be a healthy environment. Participants' views on the "Environment" theme are given below.

4.4.1. Quality Sound System of the Same Brand and Model: Two participants stated that the same brand and model of quality sound system should be found in the environment where the exam was held. "If digital recordings are to be used, there should be systems that give a natural sound" (P3). "Equality between students can be disrupted because the sound system in the exam hall is not the same brand and model in all schools" (P5).

4.4.2. Comfortable for Commission Members: One of the participants stated that the environment where the exam was held should be a comfortable place for the commission members. "The exam should be in a wide and bright environment and in an environment where all commission members can perform their duties comfortably" (P2).

4.4.3. Acoustically Appropriate: Three participants stated that the environment in which the exam is held should be acoustically appropriate. "An exam should be conducted in an environment where there is no sound loss" (P1). "The acoustic structure of the environment should be suitable enough, there should be no sound out and ventilation should be sufficient" (P3). "It should be quiet and isolated and should be acoustically appropriate" (P4).

4.4.4. The Necessary Instruments Available: One of the participants stated that the necessary musical instruments should be available in the exam environment. "There should be acoustic piano, violin, guitar, baglama, various rhythm instruments (frame drum, snare drum, goblet drum, etc.) in the environment" (P3).

4.4.5. Appropriate Physical Conditions: One of the participants stated that the exam environment should have appropriate physical conditions. "The acoustic structure of the environment should be suitable enough, there should be no sound out and ventilation should be sufficient" (P3).

4.5. Findings Regarding the Suggestion of Themes of Music Field Student Diagnosis Process

Participants were asked about their suggestions for the student diagnosis process of BILSEM music field. Categories and codes for the theme of suggestions were obtained from the data. The codes obtained are shown in table 8.

Table 8. Music teachers' suggestions for the student diagnosis process of music field

Theme	Categories	Codes	Participants
Suggestions	Questions	Suitable for level	P4, P5
		From simple to difficult	P5
		Featured in terms of content	P1, P2
		Live vocalization	P4
	Application	Consent of the music teacher	P1
		Observation of commission / Music teacher	P3

Evaluation	Scale	P3
Calendar	Simultaneously	P3

When Table 8 is examined, it is seen that the suggestions of the participants about the BILSEMs music field student diagnosis process are divided into questions, application, evaluation and calendar categories and most of the participants made suggestions in terms of questions. Participants' views on the "Suggestions" theme are given below.

4.5.1. Questions

4.5.1.1. Suitable for Level: Two participants stated that exam questions should be suitable for the students' level. "The questions should be prepared according to the levels of the children" (P4). "Exam questions must be appropriate to the age levels of the students" (P5).

4.5.1.2. From Simple to Difficult: One of the participants emphasized that exam questions should be prepared in an order from simple to difficult. "Ordering the questions from simple to difficult to keep student morale at a high level" (P5).

4.5.1.3. Featured in Terms of Content: Two of the participants stated that exam questions should be featured in terms of content. "They should be asked to sing a transposed song" (P1). "A general commission should be formed for the exam and questions should be prepared after the necessary interviews. Questions should be prepared to select the individuals with superior musical talent" (P2).

4.5.1.4. Live Vocalization: One of the participants stated that exam questions should be asked acoustically, not digitally. "The music exam in the diagnosis process should never be carried out by computer" (P4).

4.5.2. Application

4.5.2.1. Consent of the Music Teacher: One of the participants emphasized that the students who will take the exam should be guided by their music teachers. "Before applying for the BILSEM exam, the music teachers assigned by the District Directorate of National Education must apply with a letter for the exam. Application for the exam should be under the guidance of a music teacher, not the parents' preference" (P1).

4.5.2.2. Observation of Commission/Music Teacher: One of the participants emphasized that a commission comprised of music teachers should contribute to the diagnosis process by observing students in their natural environment. "In addition to the diagnosis process, a commission to be formed during the year, or a teacher to be assigned, can search for students who are suitable for the definition of "students with special talents in music" at schools, their natural environments" (P3).

4.5.3. Evaluation

4.5.3.1. Scale: One of the participants stated that a scale should be developed to identify talented students. "I find the studies on this subject in recent years positive. If we need to develop a sound "SCALE" in the field of music, which is necessary, we should turn to more realistic and detailed studies about this and develop a national or universal, valid and reliable "SCALE" (P3).

4.5.4. Calendar

4.5.4.1. Simultaneously: One of the participants stated that the exams should be held in each province simultaneously. "The exam schedule should start at the same time. The exam starts in province A and the exam ends. The exam is held two weeks later in province B with the same questions. I think this is wrong. If the same questions are asked, then I think the exam must start all over Turkey at the same time"(P2).

5. Discussion

There are many tests applied around the world to measure musical ability. Some of these tests are *SMMT* by Seashore et al., *Wing*, *Bentley*, *AMMA* by Gordon*, Karma* and Wallentine et al. (Andreasen, 2018; Law & Zentner, 2012; Whittington, 1957). These tests are aimed at measuring children's general musical abilities. In addition, many new tests are being developed to diagnose musical skills or gifted children (e.g. PROMS by Law and Zentner, 2012; Goldsmiths Musical Sofistication Index (Gold-MSI) developed by Müllensiefen, Gingras, Musil and Stewart, 2014; test developed by Edwards, Challis, Hankinson and Pirie, 2000). In addition, some institutions in different countries develop their own exams for student selection. Music field entrance exams of BİLSEMs established for the education of gifted children in Turkey are also performance-based. The questions for these exams are prepared by the Ministry of Education.

In this study, it was tried to determine the views of music teachers working at BILSEM on the student diagnosis process of music field. According to Ayas and Kirişçi, (as cited by Akıncı, 2018) diagnosis is "the process of collecting information about individuals and making decisions about individuals. The most important purpose of diagnosis is to create educational opportunities suitable for the developmental characteristics of gifted and talented students and to respond to their needs" (p. 107). Also the approach used in diagnosis process and the quality of the measurement tools ensure that musically talented students are selected correctly. According to Ersoy and Avcı (as cited in Karadağ, 2016, p.566 identification of gifted individuals and the methods used in the determination of special talent areas can be examined under the following headings: group intelligence tests, group achievement tests, individual intelligence tests, creativity tests, critical thinking tests, special tests for areas such as painting and music, developmental tests. In this context, the views of BILSEM teachers who manage the diagnostic process on the selection stages are important. And the elements that need to be developed were tried to be determined. According to Karadağ (2016, p. 569), the common point of the different ideas put forward in recent years regarding the identification of gifted individuals is that these individuals are identified in a multifaceted way and using quite a lot of data sources. Music field student identification exam in BILSEMs consists of Group (Tablet) Scanning, Aural Skills / Memory and Musical Awareness Stages in a way that supports Karadağ's view. Accordingly, teachers' opinions were taken not only dealing with musical identification process, but also about the Group (Tablet) Scanning in the diagnosis process.

Öğülmüş and Sarı (2014, p. 263) found in their study that resources and materials to be used in the education of gifted students were insufficient, teachers' anxiety levels were high, the number of teachers was insufficient and measurement tools used in diagnosis and evaluation were limited and inadequate. Hence, it was emphasized that the necessary arrangements should be made in order to eliminate anxiety in the BILSEM student diagnosis process and national intelligence and talent tests should be developed in order to enrich the measurement tools used.

In line with the data obtained from the research, it was determined that the musical measurement tools used in the diagnosis process were pre-recorded and sent to the commissions. While the questions asked in the digital environment were positive in terms of faultless vocalization, equality between students, reliability, and ease of commission, they were found negative in terms of hearing problems, inability to intervene, repetition difficulties and psychological pressure caused by bad recording or sound system. Akıncı (2018, p. 109) especially emphasized that gifted/talented students should be carefully monitored during the examination process, taking into account their morale, stress level, hesitation, and the course of success. Based on this view, it is thought that inability to intervene in digitally asked questions may prevent the proper implementation of student identification processes in some cases.

According to Akıncı (2018), absolute ear can be encountered in the diagnosis of gifted students in the field of music. "Some of the students who are talend/gifted in the field of music may have a very good aural skills ability, which is called the absolute ear. Due to the students' ability to hear every sound as a note and to say the name of this note in the exams where these students will be diagnosed as gifted/talented, whatever sound-making objects will be used during the diagnosis, these sounds should be well analyzed and the sounds they make should be carefully recorded and scored in the evaluation form according to their dynamics" (p. 109).

6. Conclusion and Recommendations

The following results were obtained from the findings acquired at the end of the interviews with the teachers:

- Three of the teachers stated that they were informed about the BILSEM student diagnosis exam through a written instruction, one of them stated that s/he was informed verbally and three of them stated that they were informed via e-conference. P2 stated that he was informed about the diagnostic exam he attended at different times, both in written form, orally and via e-conference. It is thought that it is important to inform the music teachers who will carry out the diagnosis process in a comprehensive and detailed way about the student diagnosis process of BILSEM music field. It is very important in terms of the validity and reliability of the diagnostic process that teachers are informed in the same way and with the same content in all centers where the application will be performed.
- While two teachers stated that the group (Tablet) scanning application for the BILSEM student diagnosis process should be applied to the music field student candidates, the other three teachers claimed that it was not appropriate. When the teachers' views about the aural skills and memory field of the self-assessment stage of the diagnostic process were taken, two teachers stated that the number of questions belonging to this field should be changed, four teachers stated that the contents should be changed, and two teachers stated that scoring criteria should be changed. Two music teachers stated that the content related to the musical awareness field of the self-assessment stage was insufficient and should be improved. One of the teachers stated that the content should be shortened. One of the teachers stated that the musical awareness field was unnecessary, and one teacher stated that this field was successful. Students who pass a certain score in the group (Tablet) scanning application, which is the first stage of the "BILSEM" music field student diagnosis process, are entitled to enter the individual evaluation stage of diagnosis. The reason for group (Tablet) application to these students is that students are expected to have general talents at a level determined by the National Education. For this reason, it is seen that group (Tablet) diagnosis application is an appropriate step.
- The positive and negative aspects of asking questions digitally were evaluated in the individual evaluation stage of the student diagnosis process of BILSEM music field. Two of the music teachers stated that asking the questions digitally made the vocalization process flawless, provided equality and reliability among students and facilitated the commission. Three music teachers stated that asking the questions digitally may cause hearing problems due to the sound system. Three teachers stated that negative situations couldn't be intervened during the exam. One of the teachers stated that there was repetition challenge. A teacher stated that it could create repression on students and a teacher stated that bad records would affect the exam process negatively. Individual diagnosis exam questions of "BILSEM" music field are asked in the same way around the country in the form of record. As one of the positive aspects of this situation, it can be said that applying the same processes in all examination centers increases the reliability of the exam. However, the sound systems to be used in the application should be of good quality and the exam environment should be suitable.

Playing the exam questions with the piano during the exam may have different consequences. Teachers may not always perform the same while asking questions. In this application, the teacher has an important responsibility.

- When the views of the music teachers about the environment conditions of the individual assessment exam were evaluated, two of the teachers stated that sound systems of the same brand and model should be available in the exam hall, one of them stated that the exam environment should be comfortable for the commission members, three of them stated that the exam hall should be acoustically appropriate, one of the teachers stated that the necessary instruments should be available in the exam hall and one stated that the exam environment should be ventilated and healthy. Teachers should be prepared for all negativities during the individual diagnosis phase of BILSEM music field. In addition, considering the age group to which the exam is administered, it is important that children will be excited and teachers should attempt to comfort them as much as possible.
- At the end of the meeting with the music teachers, the teachers' views on the student identification process of BILSEM music field were received. Two of the music teachers stated that the questions of the individual evaluation phase should be appropriate to the student level, one of them stated that questions should be asked in an order from simple to difficult, two of them stated that questions should be featured in terms of content and one stated that the questions should be played with the piano during the exam. In the "Scientific Research Report for the 2018 Music Field Student Diagnosis Test" published by the Ministry of National Education (MEB, 2018), it is stated that exam questions can be used as valid and reliable indicators in the diagnosis of students' musical ability. As result of the report, it was determined that the individual evaluation questions had distinguishability and internal consistency (ibid, p. 26).

Although the obtained results are limited to BILSEMs in one province of Turkey, certain trends can be seen and some recommendations can be given. Based on the results obtained through interviews with the music teachers, the following suggestions were made:

1. Before the BILSEM music field student diagnosis process, all teachers who will conduct the exam throughout the country should be informed comprehensively and in the same way.
2. The views of music teachers about the necessity of applying the group (Tablet) scanning exam of BILSEM diagnosis process to candidates in the music field should be obtained.
3. It will be beneficial to create a question repository by collecting samples of questions from the music teachers related to the content of the application in order for the questions of BILSEM music field identification process to have a national content. Selecting the questions from this question repository to be formed can ensure that the exam be accepted by all teachers.
5. The issue of asking individual evaluation questions digitally should be analyzed in line with the experiences and problems of the music teachers taking part in the application and deficiencies, and if any, should be eliminated.
6. The appropriateness of the environment in which individual evaluation will be carried out should be ensured by school administration by eliminating its deficiencies.
7. In order to contribute to the improvement of the process, it is recommended to carry out studies in which students' views on the diagnostic process are determined.

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