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EVALUATING OF THE MUSICAL ABILITIES IN FUNCTION OF EFFECTIVE MUSIC TEACHING

We are applying to Congress session:
Criteria and conditions for **Implementation** of quality educational processes

Abstract

Due to the enormous and complex responsibility, the teacher's education is of the utmost importance in the development of knowledge and skills in a systematic way. Hence, the aim of the study programs in educational faculties is to develop competences and skills of future teachers for each subject area separately. The musical abilities of the future teachers represent the basic prerequisite for absolving the knowledge and skills in music courses with all the provided curriculum topics and contents. In order to achieve great educational benefit with optimization of music education, in this paper, the musical aptitude of the future teachers was tested. For that purpose, the students at the UKIM Faculty of Pedagogy "St. Kliment Ohridski" in Skopje, R. North Macedonia in the academic year 2018/2019 were revealed by the application of the standardized music test, first implemented in 2017/2018. According to the given test scores, the results of the aptitude level of musical skills are determined through low (0-20%), medium (21-79%) and high level (80-100%). In the frequency distribution of this research, the scores that prevail are in the range of the medium level of musical aptitudes (tonal 54%, rhythm 64%, composite scores 54%). The relation between the low (tonal 44%, rhythm 34%, composite scores 46%) and the high scores of musical aptitude (tonal 2%, rhythm 2%, composite 0) of the responds are disproportional. The obtained results i.e. the weaknesses in the rhythm and melody abilities of students initiate different ways of their mastering of the musical activities on the courses through a sequential study of the musical matter. This approach enables an objective aid to the teacher in assisting students to make the best use of their musical potential and achievements through appropriate music instruction and opportunities.

Keywords: Teacher's music education, revealing musical abilities

2. METHODOLOGY

The AMMA test of E. Gordon was distributed to 50 students. The test's stimulus mode is 30 pairs of musical statements performed by a synthesizer and recorded on a cassette tape. The whole procedure lasted about 15 minutes, it was easy to implement because of a high level of standardization. The response mode was paper and pencil. Listeners were asked to discriminate between statements in each pair: whether the items in the pair are the same or different tonally and the same or different rhythmically. Standardization of the Gordon test implies standardization and entering and processing of data with use of two sets of scoring masks: One set is deriving the tonal score, and the other the rhythm score. Using the scoring masks count the number of blanks that are fill on the answer sheet (T1/R1 – correct, T2/R2 - incorrect). Scoring the answer sheets included three processes: 1) counting of the number of correctly answered questions, 2) obtain and adjusting the row scores, and 3) converting to percentile ranks. In the statistical processing, the frequency distribution, the mean value, and the SD are used due to a comparison of our results with the values given to Gordon

3. FINDINGS

In the following tabels and graphs are presented frequency distributin of tonal, rhythm and total Row Scores.

Table.1. Frequency Distribution of Tonal Row Scores

From (>=)	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
To (<)	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Count	1	0	1	1	3	5	3	7	4	4	1	2	8	2	4	2	1	0	0	1

The following histogram represents a distribution with a peak (around 25) skewed to the left and highly probable outlier to the far right (around 32). In addition, it has another (smaller) "peak" (mode) around 20. Compared with the scores of Gordon (max 40), there is lower values.
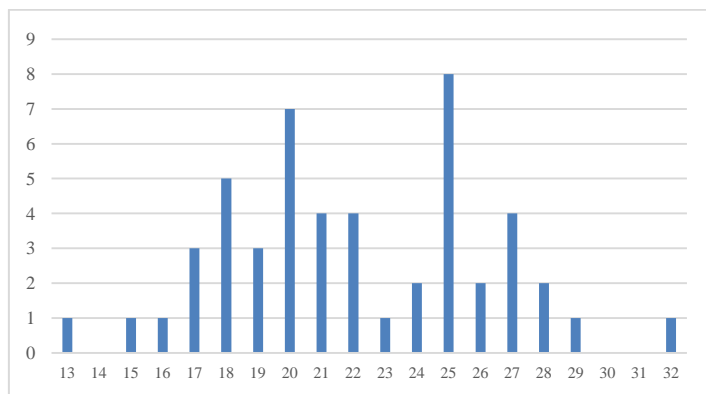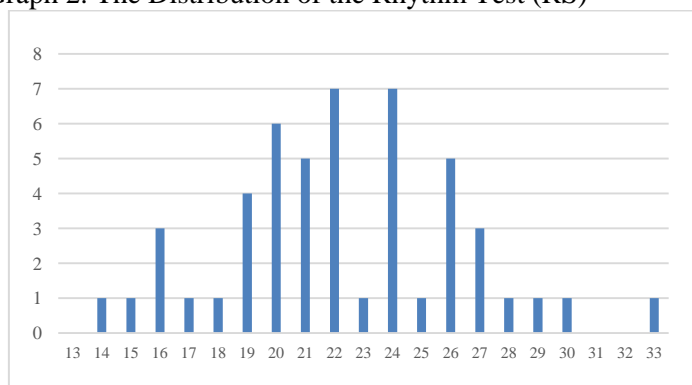
Graph 1. The Distribution of the Tonal Test (RS)

Table.2. Frequency Distribution of Rhythm Row Scores

From (>=)	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
To (<)	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Count	0	1	1	3	1	1	4	6	5	7	1	7	1	5	3	1	1	1	0	0	1

Graph 2. The Distribution of the Rhythm Test (RS)

The overall shape of the distribution is curve unsymmetrical multimodal with two peaks around which the observations are concentrated (22 and 24). In addition, it has another (smaller) "peak" (mode) around 20. The results from the rhythm test are lower than Gordon scores. There is also one probable outlier to the right around the score 33.

Table.3. The Frequency Distribution of Total Row Scores

Frequency Distribution of Total Row Scores									
From (>=)	31	37	40	42	45	48	51	54	57
To (<)	36	40	42	45	48	51	54	57	60
Count	4	8	10	9	4	4	6	3	2

Graph 3. The Distribution of Total AMMA Test RS
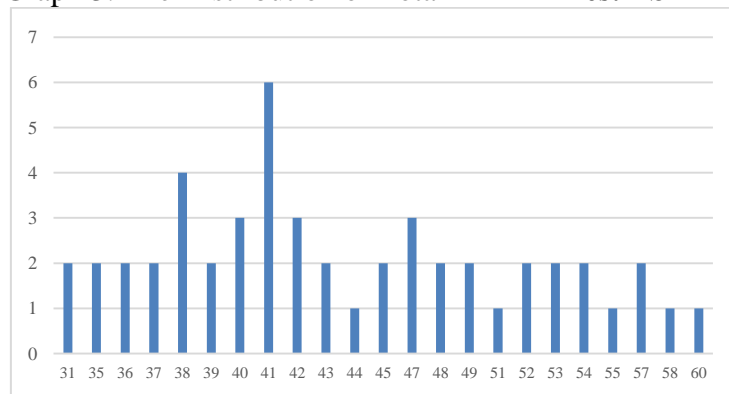
The frequency distribution of the total score is inclined curve skewed right. We have a concentration of data among the 38 to 41 and a long tail to the right. The data range from about 31 to 60, so the approximate range is lower than Gordon scores (max.80). The right tail (higher values) is much longer than the left tail (lower values). These results are confirmed with the obtained mean values and SD with our research (Table 4):

Table 4. The Mean and SD of RS

Music aptitude	Mean	SD
Tonal	22,02	4,123
Rhythm	22,26	4,030
Composite (total)	43,74	7,134

The next step is to represent Percentile Rank of Raw scores according to the conversion principle in percentages developed by Gordon, which determines the Aptitude Level of musical skills. Gordon determines the Aptitude Level of musical skills through: low (0-20%), medium (21-79%) and high level (80-100%).

Table 5. The Frequency Distribution of Percentile Rank

Percentile Rank	Tonal	Rhytm	Total
0-10	3 6%	7 14%	6 12%
11-20	10 20%	9 18%	17 34%
21-30	9 18%	8 16%	6 12%
31-40	8 16%	8 16%	5 10%
41-50	3 6%	8 16%	5 10%
51-60	8 16%	2 4%	6 12%

61-70	5 10%	1 2%	4 8%
71-80	3 6%	6 12%	1 2%
81-90	1 2%	1 2%	0
91-100	0	0	0
Count	50 100%	50 100%	50 100%

Tonal

Rhythm

Total
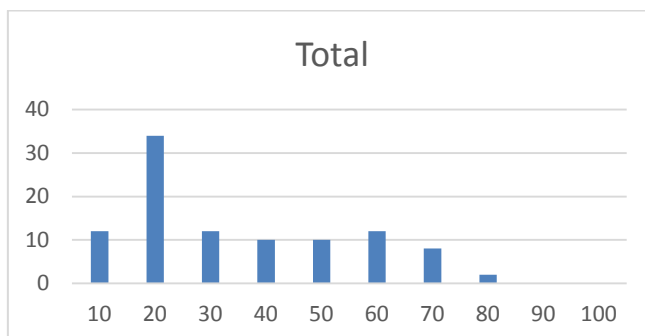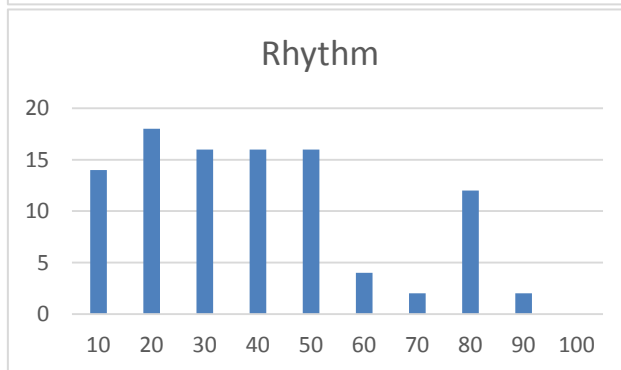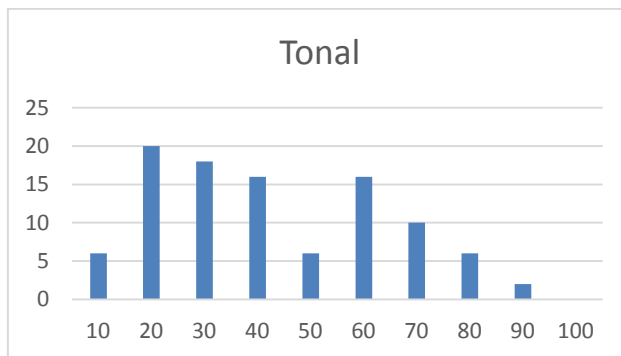
In the ranking of the height component of the musical skills through the Tonal test, the highest number of respondents (10 respondents or 20%) are ranged in the category from 11-20% (at the low and middle level limit). In the ranking of the rhythmic component through the rhythm test, the highest number of respondents (9 respondents or 18%) are in the same category (at the low and middle level limit). In the aggregate percentage ranking (Total), the highest percentage of respondents (17 respondents or 34%) are again in the same category.

In the following table (Table 6), the final distribution at the aptitude level of musical skills according to the height, the rhythmic component and the collective result is given.

Table 6. The Frequency Distribution of Aptitude Level of Music Aptitude

Aptitude Level	Tonal	Rhythm	Total
	22	17	23
Low (0-20%)	44%	34%	46%
	27	32	27
Medium (21-79%)	54%	64%	54%
	1	1	0
High (80-100%)	2%	2%	

The comparison shows that the relation between the low and the high aptitude level of musical abilities in all parameters is disproportionate in favor of the middle level.

4. DISCUSSION and CONCLUSION

This condition generally confirms the advantage of Gordon test that students can achieve at high standards regardless of their previous knowledge of music. Having in mind that from the total number of respondents, 29 (58%) completed a gymnasium (general program secondary education school), while the remaining 21 (42%) secondary vocational education, suggesting that almost half of them had no continuity in music during their education. Additionally, with the enrollment at the Faculty of Pedagogy, in the first two years of studies, they have no subjects in this art either.

The results indicate exact focusing on the weaknesses in terms of rhythm and melody for effective music teaching with all the foreseen program activities - singing, playing instruments, listening to music. According to the approach of Gordon (2007b, 2007d), in order to improve musical aptitudes and achievements, in the study program can be applied the sequential study of the music matter of tonal and rhythmic audiation development. It implies a music skill learning sequence, tonal learning sequence, rhythm learning sequence, and pattern learning sequence. Through music skill learning sequence students learn to discriminate among tonal patterns and rhythm patterns through imitation and to gain readiness for inferential music thinking. As might be expected, learning musical sequence activities need to be coordinated with a study program where students are introduced to tonalities and meters, as well as other musical elements.

This type of research on musical aptitude is in the function of improving the specific competencies of students through targeted pedagogical activities, also to establish objective and realistic expectations for the musical achievement during studies.

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