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THE SECOND INTERNATIONAL CONFERENCE

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Editors

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# Musically Talented in Competitions

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## Abstract

Music contests are a tool for talent identification and talent promotion. Research on contests and their participants is scarce. Little is known about the long-term effects of contests on musical life trajectories and careers. Some large-scale studies have recently determined the research deficit (Gembris & Bullerjahn, 2022; Gembris, Menze, & Herbst, 2020; Gembris, Menze, Heye, & Bullerjahn, 2020). The aim is to present some important results of a large-scale study on participants ( $N = 1,143$ ) of the national contest *Jugend musiziert* [Youth making music] (e.g., socio-cultural background, personality traits, self-concept, practicing behavior, health aspects, etc.). These findings will be presented together with the results from two follow-up studies examining former contest participants' musical and professional development. On this basis, the effectiveness of the promotion of musical talent through the *Jugend musiziert* competition as an exemplary case will be discussed as well as aspects like sustainability in the context of gifted education and professional careers.

## Introduction

Music competitions exist in many countries and cultures. In music history, they date back to ancient Greece (Jacobshagen, 2021; Kwok & Dromey, 2018). Since the 19<sup>th</sup> century, the time of virtuosity in music, a diverse institutionalized competition system has developed in Europe, which forms an essential part of musical culture. Particularly since the 1980s, the number and variety of music competitions has increased considerably. These include competitions for children and adolescents, young pro-

fessional musicians, amateur musicians, and competitions for all kinds of instruments and domains of music as well (cf. Kwok & Dromey, 2018, pp. 69–70).

The most important goal of music competitions is identifying and promoting musical talents. Today, they are also intended to build musical careers, provide stage and audience experience, and build artistic personality in the public and media (cf. Kienast, 2022, p. 23). In today's era of an oversupply of talented musicians in a tight labor market, it is difficult, especially for young talents, to be invited to perform concerts without being winners in music competitions. On the other hand, winning competition awards is no guarantee for a successful career. Competitive pressure and coping with the possible disappointment of dropping out of competition can also have negative effects, burdening further development and career building (cf. Kienast, 2022, pp. 23–24).

## Research on Music Competitions

Studies on competitions and its participants are scarce. Pioneering research on the talent development of contest participants and the reliability of jurors' judgments was conducted by Manturzevska (2011) at the Sixth International Chopin Competition (Warsaw) in 1960. One main result was the formulation of a new concept of musical talent (Manturzevska, 1986, p. 88). Another important result were the extreme inter-individual differences in the experts' evaluation of the same musical performances, which led to the conclusion that "individual ratings of musical performance are not a reliable measure of musical achievement, even when given by music experts of the highest level" (Manturze-

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wska, 2011, p. 97). This conclusion is confirmed by a recent review of studies on the reliability and validity of musical performance assessment (McPherson & Schubert, 2022, p. 122; see also Kwok & Dromey, 2018, pp. 71–72).

There is a particular lack of research with regard to participants in competitions (not only) in the field of classical music. Some important research has been conducted on the participants of the *Jugend musiziert* [Youth making music] competition in Germany (e.g., Bastian, 1989, 1991; for an overview, see Bullerjahn & Gembris, 2022).

### Research on the *Jugend musiziert* Competition

The annual *Jugend musiziert* competition has been the most important music competition for talented children and adolescents in Germany for 60 years (Deutscher Musikrat, 2022). *Jugend musiziert* is organized into three levels: 1) regional level, 2) federal state level, and 3) national level. Participants in the regional competitions who achieve at least 23 out of 25 possible points and receive recommendations can take part at the federal state level. First-prize winners of the federal state competitions can participate in the national competition.

Gembris and Bullerjahn (2022) recently carried out a large-scale study on participants in the 2017 national competition *Jugend musiziert*. The aim of the study was to gain insights into the socio-cultural background and personality of the competition participants, their motivation, practice habits, playing-related pain, and further aspects. During the 7 days of the competition, approximately 2,260 paper and pencil questionnaires were distributed to the participants. A total of 1,143 contest participants, aged 9 to 24 years ( $M = 15$ ;  $SD = 2.1$ , female = 62%), completed the questionnaire and were involved in the study.

### Socio-cultural Background of Participants

The participants in the national competition came from upper-middle class families with

high educational capital and a musical environment in which parents and siblings were also involved in music. About 60% of the fathers were in academic professions, 11 percent musicians. More than half of the mothers (52%) also had an academic background, including 16% musicians. The proportion of academics among parents is almost 3 times higher than the population average in Germany, which is around 22% (Destatis, 2018, p. 90). Music has a high value; parents invest time and money in music lessons. They are present at auditions and concerts and support especially younger children in practicing. The majority (75%) lived in a family with their own house or in their own flat. Compared to the percentage of home ownership in Germany, which is only 45% (Destatis, 2018, p. 90), the percentage of home ownership among the families of the participants in the national competition is 30% higher. The vast majority (86%) of respondents come from families with an above-average number of children compared to the national average.

In sum, the family environment of the contestants forms a specific music-cultural socio-topos, which is characterized by a high normative and practical value of music, far above-average education, a positive educational climate, and committed family support. These findings are in line with findings from Bastian's (1989, 1991) studies on participants in the *Jugend musiziert* competition as well as with corresponding results of other researchers (e.g., Bogunović, 2010; Reeves, 2015). The contestants' family backgrounds and the family's prominent role in promoting musical talent in classical music have hardly changed in decades. Since above-average (musical) talent is not necessarily linked to an education-oriented parental home and economic capital (cf. Stamm, 2021, p. 577), the question arises as to how musically talented children from disadvantaged families can be discovered and promoted (cf. Kerr et al., 2021, pp. 202–205). Another question is to what extent the socio-cultural background typical of competition participants in Western classical music can also be observed in competitions in

genres such as pop and jazz. These topics have been neglected in research so far.

### Personality and Musical Self-Concept

Regarding the personality (assessed with the Big-Five-Inventory-10 BFI-10; Rammstedt et al., 2013), the *Jugend musiziert* participants were found to be significantly more open to new experiences, more introverted, less conscientious, less agreeable, and more emotionally unstable compared to the norm sample. However, the effect sizes were only low to moderate. These findings on personality traits largely align with the results of earlier studies on the personality of professional musicians (cf. overview Bullerjahn & Kassl, 2022, pp. 215–219). They are also fitted with the trait-complex approach to talent development (see Kerr et al., 2021).

Items describing the need and pride to be able to do something musically, the ambition and need to utilize one's abilities, and the experience of great feelings received the participants' strongest approval (80% and more). Half of the contestants (56%) felt they could become great musicians (Bullerjahn & Kassl, 2022, p. 240). In assessing their musical talent on a 9-point rating scale, just under a third were in the average range, while two-thirds rated their talent above average. A minority of 6% chose the maximum value of 9 points and thus indicated a self-assessment as highly gifted. In sum, the competition participants show a positive, realistic musical self-image that reflects a self-confident identity as a musician but does not give the impression of an elitist, exaggerated self-concept. Sixty percent of the competition participants indicated that they would consider studying music. Almost one-half reported that they would consider becoming a professional musician.

### Practice Time

The participant started with their main instrument mostly around the age of 7 ( $M = 7.3$ ,  $SD = 2.71$ ). Data on individual weekly practicing varied from 30 minutes up to 38:30 hours.

The average was 7:17 hours per week ( $SD = 6:16$ ). With growing age, weekly practice increases from 6 hours ( $SD = 04:43$ ) for 8- to 13-year-olds group up to 9:30 hours on average for 18- to 24-year-old group ( $SD = 08:26$ ).

The most extended practice time, an average of almost 11 hours ( $M = 10:50$ ,  $SD = 07:48$ ) per week is recorded for the piano, and approximately 10 hours ( $M = 09:57$ ,  $SD = 06:45$ ) per week for the violin. The instruments with the shortest weekly practice times are saxophone and tuba, with 3 to 3 and a half hours, and voice, with just under 4 hours. There are also observed differences between the competition categories. The longest weekly practice time is found in the classical solo category with 9:25 hours ( $SD = 7:30$ ). In the ensemble category, practice time is about 3 hours shorter ( $M = 6:50$ ,  $SD = 5:43$ ). In the solo pop category, the practice time is lowest at 5 and a half hours per week ( $M = 05:28$ ,  $SD = 4:34$ ).

The extremely high individual differences in practice time are striking. Our findings are consistent with a number of studies that have also shown that the amount of practice time required to achieve expertise in a particular domain shows considerable interindividual variability. This confirms that the importance of practice time for talent development has been significantly overestimated, while the role of aptitude and specific constellations of personality traits has been underestimated (e.g., Macnamara & Maitra, 2019; Ullén et al., 2016).

### Health Aspects

For the first time, this study examined playing-related pain, health and well-being in the context of music competitions. Overall, 76% of respondents reported having playing-related pain during or after playing their instrument. The prevalence of playing-related pain is age-dependent: It rises from about 70 % in the 9- to 13-year-old group to 85 % in the 18- to 24-year-old group. This prevalence of playing-related pain corresponds to that of professional musicians (cf. Gembris et al., 2020). Musculoskeletal system problems (e.g., neck, shoulder, wrists,

arms) occur most frequently, a well-known finding from professional musicians.

Making music at a high level requires a great commitment, which often conflicts with other demands from school. This multiple workloads can lead to a chronic lack of time, stress, and pressure to perform (see Heye, 2019). A clear majority of about 70% of the competition participants stated that they often experience time pressure resulting from conflicts with the demands of school. However, time pressure is only weakly related to weekly practice time. This indicates that practicing is not a dominant stress factor but rather the time required for school.

Regarding positive effects of music making, the competition participants attribute positive effects of music making on their well-being and quality of life, independently from variables such as age, gender, and instrument groups. This supports the assumption that the positive effects of music-making on well-being are universal effect phenomena of music, which also occur when there is pressure to perform.

### Follow-up Studies on Former Contest Participants

In a follow-up study (Gembris, Menze, Heye, & Herbst, 2020) with former participants ( $N = 807$ ) of the state and national competitions of *Jugend musiziert*, we have focused on the retrospective significance of the competition and possible long-term effects. We examined their career paths and how they were currently involved in music. Furthermore, we investigated for the first time whether former competition participants experience a higher quality of life than the average population. We used a standardized online questionnaire, including the WHO Quality of Life Questionnaire (WHOQL-BREF 10; Angermeyer et al., 2000), to measure the quality of life. The mean age of this sample was 43 years ( $SD = 6.6$ ), 50% were female.

In the second follow-up study, we examined essentially the same questions with another sample consisting of 167 former members of the Berliner Landesjugendorchester [Berlin State Youth Orchestra]. The state youth orches-

tras offer participants or former participants of state competitions *Jugend musiziert* the opportunity to collect orchestral experience under *quasi*-professional conditions. Therefore, this study focused on the role of orchestral experience in later musical development. As in the first follow-up, we applied a standardized online questionnaire, also including the WHOQL-BREF 10. The mean age was 33 years ( $SD = 9.5$ ), 68% were female.

The results of both studies are very similar. About 80% (follow-up 1) and 70% (follow-up 2) had university degrees, so the level of education in both studies was extremely high compared to 22% for the population average. Almost half of the respondents of both follow-up studies (49% respectively 47%) had a professional music-related job (e.g., employed orchestra musician, freelance musician and/or music teacher). The other half mostly pursued academic professions not related to music. In both studies, those who earned their living in non-music professions also reported regular playing on instruments, music-making in ensembles, and singing in choirs. In both studies, 90% said they encourage other people to music. In their families, music plays a crucial role in the education of children.

Concerning the quality of life, the first follow-up study indicated that the quality of life in all measured dimensions (physical and psychological quality of life, social relationships, environment, and total value) was significantly above the general population's average. In the second follow-up study with former members of the Landesjugendorchester Berlin, the quality of life was significantly higher than the norm values of the comparison samples in two dimensions (environment, general quality of life). It should be taken into account that the increased quality of life may be influenced by factors such as education and socioeconomic status, which are known to positively affect the quality of life.

### Conclusion

The results of our study, as well as those of other authors (e.g., Bastian, 1989, 1991), suggest



that studies of participants in music competitions can provide significant insight into the socio-cultural background, personality, and motivation of highly talented musicians. Depending on the type of competition, music competitions bring together many talented young musicians from different musical fields, for example, instrumental playing, singing, composition, jazz, pop, etc. Therefore, music competitions offer a unique research opportunity to investigate the nature of giftedness and talent development in different musical domains that have been little used so far.

Participation in music competitions may be a powerful factor in stimulating musical achievement development in the respective musical domain. Regardless of whether competition participants become prize winners or not, the upcoming participation in the competition leads to increased motivation and intensified goal-oriented practice many months before the competition starts. The challenging participation in international competitions strongly incentivizes expanding the repertoire into new areas and developing new concert programs (see Kwok & Dromey, 2018, p. 70).

From a theoretical point of view, participation in music competitions may be integrated as a developmental factor into existing talent development models. For instance, contest participation can be located in the competence development or expertise development phase using the theoretical model of the Talent development in achievement domains framework [TAD] (Preckel et al., 2020).

So far, we have hardly any specific findings on the positive or negative effects of participation in music competitions on the personality, musical development and career of young talents. Because most participants in competitions will not be laureates, the question also arises as to how young talents deal with unsuccess and disappointments in their careers and which coping strategies are helpful and which are not.

Our follow-up studies revealed that a large proportion of former participants and prize winners of the *Jugend musiziert* competition go

on to music-related professions and that those who have taken up professions outside music develop considerable music-cultural generativity as musical experts and cultural multipliers who pass on music culture to future generations. In this sense, the *Jugend musiziert* competition can be considered sustainable. Creating sustainable careers, in general, is of paramount importance for the professional development of young talents (see Burland & Bennett, 2022). In this context, the question arises whether and how music competitions can contribute to the sustainability of fostering musical careers. McCormick (2015, pp. 244–245) describes the recent tendency of competition organizers to support prize-winners in developing their careers in the longer term, even beyond the end of the competition, e.g., through partnerships with music festivals.

Future studies on music competitions could make a general contribution to understanding the nature and development of musical talent and provide insights for the sustainable promotion of musical careers by investigating the specific role of competitions and their possible impact on musical and professional development.

## References

- Angermeyer, M. C., Kilian, R., & Matschinger, H. (2000). *WHOQOL-100 und WHOQOL-BREF: Handbuch für die deutschsprachige Version der WHO-Instrumente zur Erfassung von Lebensqualität* [WHOQOL-100 and WHOQOL-BREF: Manual for the German-language version of the WHO instruments for assessing quality of life]. Hogrefe.
- Bastian, H. G. (1989). *Leben für Musik: Eine Biographie-Studie über musikalische (Hoch-)Begabungen* [Living for Music: A biographical study of musical (high) talent]. Schott.
- Bastian, H. G. (1991). *Jugend am Instrument: Eine Repräsentativstudie* [Youth at the instrument: A representative study]. Schott.
- Bogunović, B. (2010). *Muzički talenat i uspešnost* [Musical talent and successfulness] (2<sup>nd</sup> ed.). Fakultet muzičke umetnosti i Institut za pedagoška istraživanja.

- Bullerjahn, C., & Gembris, H. (2022). 'Jugend musiziert' im Spiegel empirischer Forschung ['Jugend musiziert' in the mirror of empirical research]. In H. Gembris & C. Bullerjahn (Eds.), *Teilnehmerinnen und Teilnehmer am Bundeswettbewerb 'Jugend musiziert'* [Participants in the national competition 'Jugend musiziert'] (pp. 19–78). LIT.
- Bullerjahn, C., & Kassl, C. (2022). Persönlichkeit und musikalisches Selbstkonzept bei Teilnehmenden des Bundeswettbewerbs 'Jugend musiziert' [Personality and musical self-concept in participants of the national competition 'Jugend musiziert']. In H. Gembris & C. Bullerjahn (Eds.), *Teilnehmerinnen und Teilnehmer am Bundeswettbewerb 'Jugend musiziert'* [Participants in the national competition 'Jugend musiziert'] (pp. 211–258). LIT.
- Burland, K., & Bennett, D. (2022). Creating sustainable performance careers. In G. McPherson (Ed.), *The Oxford handbook of music performance: Vol. 2. Enhancements, health and well-being, science, and innovations* (pp. 135–153). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780190058869.013.8>
- Deutscher Musikrat. (2022). *Jugend musiziert: Wettbewerbe für das instrumentale und vokale Musizieren* [Jugend musiziert: Competitions for instrumental and vocal music-making]. <https://www.jugend-musiziert.org/>
- Gembris, H., & Bullerjahn, C. (Eds.). (2022). *Teilnehmerinnen und Teilnehmer am Bundeswettbewerb 'Jugend musiziert'* [Participants in the national competition 'Jugend musiziert']. LIT.
- Gembris, H., Menze, J., & Herbst, S. (2020). *Begabungsförderung im Landesjugendorchester: Erfahrungen und Lebenswege ehemaliger Orchestermittglieder* [Promoting talent in the Landesjugendorchester: Experiences and life paths of former orchestra members]. LIT.
- Gembris, H., Menze, J., Heye, A., & Bullerjahn, C. (2020). High-performing young musicians' playing-related pain. Results of a large-scale study. *Frontiers in Psychology*, 11, Article 564736. <https://doi.org/10.3389/fpsyg.2020.564736>
- Gembris, H., Menze, J., Heye, A., & Herbst, S. (2020). *Ehemalige Teilnehmende am Wettbewerb 'Jugend musiziert' und ihre Lebenswege: Eine Studie zu den (Nach-)Wirkungen musikalischer Bildung* [Former participants in the 'Jugend musiziert' competition and their life paths: A study on the long-term effects of musical education]. LIT.
- Heye, A. (2019). *Mehrfachbelastung in der Ausbildung musikalisch besonders begabter Jugendlicher* [Multiple stress in the education of musically gifted adolescents]. LIT.
- Jacobshagen, A. (2021, August 19). *Musikwettbewerbe* [Music competitions]. <https://miz.org/de/beitraege/musikwettbewerbe>
- Kerr, B. A., Wright, J. D., Huffmann, J. M., Birdnow, M., Reder, M., Stull, O. A., & Malmsten, R. N. (2021). Cognitive ability, personality, and privilege: A trait-complex approach to talent development. In R. J. Sternberg & D. Ambrose (Eds.), *Conceptions of giftedness and talent* (1<sup>st</sup> ed., pp. 195–214). Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-030-56869-6\\_12](https://doi.org/10.1007/978-3-030-56869-6_12)
- Kienast, N. S. (2022). *Musikwettbewerbe unter Legitimationsdruck: Wie Beziehungsgeflechte und suggestive Faktoren Juryurteile beeinflussen* [Music competitions under pressure to legitimise: How networks of relationships and suggestive factors influence jury decisions]. epOs-Music.
- Kwok, G., & Dromey, C. (2018). On classical music competitions. In C. Dromey & J. Haferkorn (Eds.), *The classical music industry* (pp. 67–76). Routledge Taylor & Francis Group. <https://doi.org/10.4324/9781315471099>
- Macnamara, B. N., & Maitra, M. (2019). The role of deliberate practice in expert performance: Revisiting Ericsson, Krampe & Tesch-Römer. *Royal Society Open Science*, 6(8), Article 190327. <https://doi.org/10.1098/rsos.190327>
- Manturzewska, M. (1986). Musical talent in the light of biographical research. In E. Rohlfs (Ed.), *Musikalische Begabung finden und fördern. Materialien und Dokumente Kieler-Woche-Kongreß 1985* [Finding and promoting the musically gifted. Documentation of the Kiel-Week Congress 1985] (pp. 86–92). Bosse.
- Manturzewska, M. (2011). The reliability of evaluation musical performance by musical experts. *Interdisciplinary Studies in Musicology*, 10, 97–109. [https://repozytorium.amu.edu.pl/bitstream/10593/4223/1/11\\_Manturzewska-J.pdf](https://repozytorium.amu.edu.pl/bitstream/10593/4223/1/11_Manturzewska-J.pdf)
- McCormick, L. (2015). *Performing civility: International competitions in classical music*. Cambridge University Press.
- McPherson, G. E., & Schubert, E. (2022). Enhancing music performance appraisal. In G. McPherson (Ed.), *The Oxford handbook of music performance: Vol. 2. Enhancements, health and well-being, science, and innovations* (pp. 103–134). Oxford

- University Press. <https://doi.org/10.1093/oxford-hb/9780190058869.013.7>
- Preckel, F., Golle, J., Grabner, R., Jarvin, L., Kozbelt, A., Müllensiefen, D., Olszewski-Kubilius, P., Schneider, W., Subotnik, R., Vock, M., & Worrell, F. C. (2020). Talent development in achievement domains: A psychological framework for within- and cross-domain research. *Perspectives on Psychological Science*, 15(3), 691–722. <https://doi.org/10.1177/1745691619895030>
- Rammstedt, B., Kemper, C. J., Klein, M. C., Beierlein, C., & Kovaleva, A. (2013). A short scale for assessing the Big Five dimensions of personality: 10 item Big Five Inventory (BFI-10). *Methoden, Daten, Analysen*, 7(2), 233–249. <https://doi.org/10.12758/mda.2013.013>
- Reeves, A. (2015). ‘Music’s a family thing’: Cultural socialisation and parental transference. *Cultural Sociology*, 9(4), 493–514. <https://doi.org/10.1177/1749975515576941>
- Stamm, M. (2021). Der fehlende Blick auf begabte Minoritäten. Blinde Flecken in der Begabungsförderung [The missing view on gifted minorities. Blind spots in the promotion of giftedness]. In V. Müller-Opplinger & G. Weigand (Eds.), *Handbuch Begabung* [Handbook of Giftedness] (pp. 576–587). Beltz.
- Statistisches Bundesamt (Destatis). (2018). *Statistisches Jahrbuch Deutschland 2018* [Statistical yearbook Germany 2018]. [https://www.destatis.de/DE/Themen/Querschnitt/Jahrbuch/statistisches-jahrbuch-2018-dl.pdf?\\_\\_blob=publicationFile&v=5](https://www.destatis.de/DE/Themen/Querschnitt/Jahrbuch/statistisches-jahrbuch-2018-dl.pdf?__blob=publicationFile&v=5)
- Ullén, F., Hambrick, D. Z., & Mosing, M. A. (2016). Rethinking expertise: A multifactorial gene-environment interaction model of expert performance. *Psychological Bulletin*, 142(4), 427–446. <https://doi.org/10.1037/bul0000033>