THE PROFESSIONAL LEARNER AND PERFORMER

Investigating the Field of Higher Education

and Expertise Development for Learning and

Performing the Double Bass

- A Global Survey -

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ABSTRACT

This study investigates the field of higher education and expertise development for learning and performing the double bass.

The aim is to draw a picture of how the double bass is currently learned and performed by the learning student, the supervising professor and the performer working in a symphony orchestra, to find out whether if there were any significant differences between the three groups in their approaches to practice and performance. Results indicated that the achievement of expertise on the double bass is multifaceted and implies the development of multiple tasks and skills which soon have to be fostered and experienced in the field of learning and performing. Significant differences between the three groups were detected in the area of demography, experiences, knowledge, and their approaches to practice. Recommendations and implications for further investigation indicate that a wider perspective of learning, practice, self-evaluation in combination of the usage of technology for practice support and feedback should be taken into account for enhancing performance ability for the double bass.

Keywords: *Double bass, Skill, Practice, Pre-professional Learning, Expert Performance.*

INTRODUCTION

Musicians strive for expertise. Whatever instrument or style of music, only the achievement of the highest level of musical expertise together with a flawless technique enables the musician to communicate effectively with their audiences and the musical partners they are performing with. (Williamon, 2004; Davidson, 2004). But how can instrumental expertise be achieved by the learner? While many attempts have been undertaken to define expertise, the current work focuses on the concepts for the development of performance expertise on the double bass.

Throughout the last few decades, some researchers have developed various different approaches to musicians' individual study and to the way they acquire and perfect their techniques as instrumentalists (Hallam 1997; Jorgensen, 2000). Although many of these studies provided new perspectives for instrumental learning (Hallam, 1997), it is not yet known whether the results obtained in those studies had any impact on the population researched (Bastian, 1998). What has been noted is that the results of the studies undertaken are very slow to take root as a discipline which guides the concepts of "learning to learn", geared towards formalising a "professional practice" discipline in the instrument

course in higher education (Pertzborn, 2007).

Furthermore, if these links remain disconnected from instrumental practice, they may not provide the student with the means to achieve maximum proficiency. Nevertheless, the majority of double bass students are still advised to study through methods and study books which were published during the 19th Century, which is partially confirmed in the present study. Even the more recent methods have not yet made an in-depth exploration of the processes entailed in acquiring skills for professional instrumental practice.

1. AIM

The aim of the present study was to set out the way in which learning of the double bass takes place. The study considered the point of view of the student (STUD), the professor (PROF) and the orchestra musician (ORCH) and sought to identify significant differences between these three groups vis-à-vis study methods and respective performance. The further aims were to (1) gauge what may differentiate the double bass from other string instruments in terms of learning and execution and (2) gauge the consequences of the multiplicity of schools and study methods in developing performance on the instrument.

The majority of studies previously carried out into the double bass have mainly focused on the history of the instrument (Planyavsky, 1984; Brun, 2000). The present research is based on a broader approach, considering the student's learning processes, and the technical development of the instrument and of musical practice. It is an extensive field study undertaken in the area of the double bass, since it arose from my professional experience as a solo double bassist in a symphony orchestra, from my work as a double bass professor in a music college and from my activity as an associate member of a research centre.

2. METHOD

2.1. BIBLIOGRAPHICAL REVIEW

Together with the empirical approach adapted to this study, a bibliographical review was undertaken encompassing the areas of (1) the student and (2) the instrument. The first part focused on study habits, skills, and task requirements as well as some personal questions. The second part analysed the history of the double bass and its players, analysing their influence on the development of instrumental practice and its repertoire. Many of the premises which arose from the historical review, such as the diversity which exists in bow schools and in the use of different postures and tunings, are still subject to controversy even today. These concepts were included in the survey for the purpose of analysing the impact of the instrument's history and tradition on the current generation.
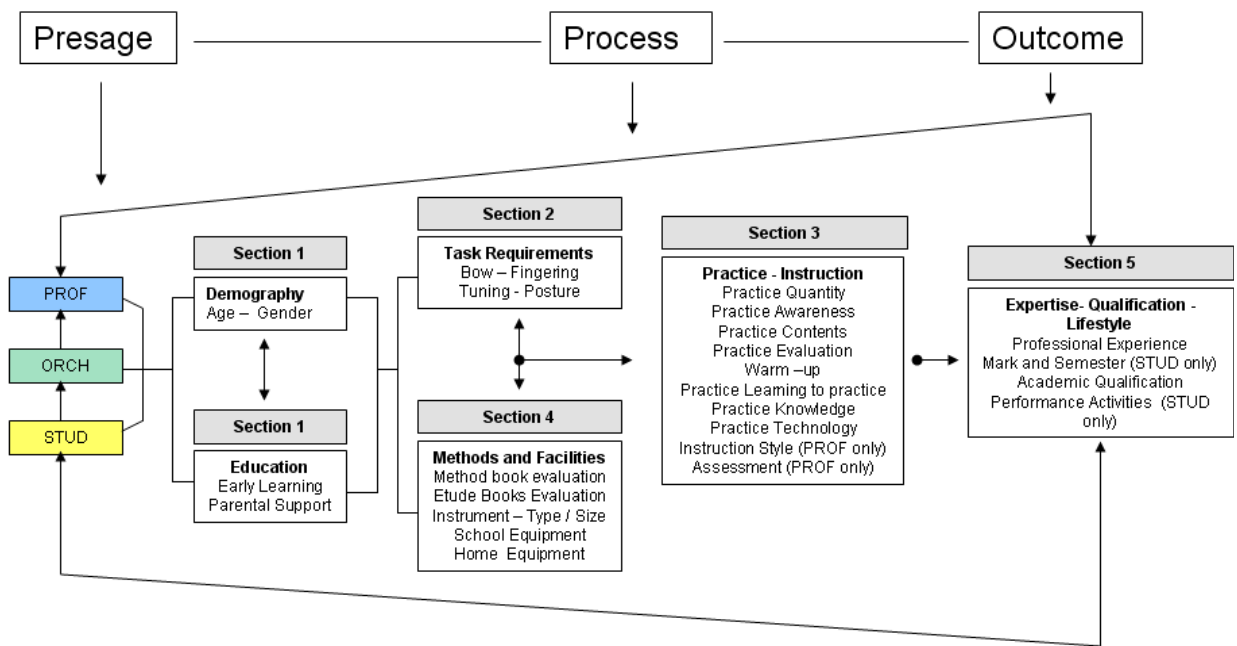
2.2. QUESTIONNAIRE

A multidimensional instrumental learning model developed by Hallam (1997), based on Biggs & Moore (1993), was considered the most appropriate to draw up the questionnaire. Following this model, five areas of research were created, corresponding to the five sections of the questionnaire: The student's characteristics (Section 1), activities relating to the instrument (Section 2), study processes (Section 3), the learning environment (Section 4) and the results of the learning (Section 5). Figure 1 represents the model used for the questionnaire in the present study (next page).

Thirty-four questions were put together in the categories *Presage* - , *Process* -and *Outcome Factors*, covering a broad range of topics: student's characteristics, population, music education, specific requirements, the musical and instrumental environment, processes of instrumental practice, experience of performance & expertise, instrument methods, biographical information, professional experience, health, well-being and lifestyle. Four different types of answer were used: (1) Score from 1-5, (2) Multiple choice, (3) Choice between Yes - No - Rarely and (4) Numerical indication, such as for example in the case of "years of experience". There was an open-ended question at the end of each section (five in total), used to survey individual opinions or different points of view.

2.3. SAMPLE POPULATION

The present study was aimed at an international population of double bassists, from seven countries located in three continents, including 82 students (STUD) and 14 professors (PROF) from 13 universities, and 33 orchestra double bassists (ORCH) from 7 symphony orchestras. A total of 129 individuals participated in the study. Figure 2 represents the composition of the population (next page).

In order to guarantee a sufficient number of participants to render the study feasible, the "snowball" sampling principle was used (Carmo & Ferreira, 2008). Thus, during the initial stage, the heads of the

1 | Fig. 1. Model used for the Study.

orchestras contacted collaborated in performing the study by handing out questionnaires to their double bass players. The university professors supervised their students in completing their questionnaires as well as in forwarding them to the Research Centre for Science and Technology in Art – CITAR at the Portuguese Catholic University. An Internet site was created (www.dapprojectwebsite.info) containing information on the project and additional information for participants in the event of any queries. As stated, there were 129 participants in total, which corresponds to a response rate of 95.9 %.

2.4. DATA ANALYSIS

The data gathered during the survey was processed using the statistical program SPSS 17.0, taking into account the statistical technique most suited to the variables involved. The data was organised according to the nature of the variables, the majority of them qualitative and descriptive techniques. The Principal Component Analysis (PCA) was used to shrink down the size of the topics and identify the profiles, considering biography, education, etc. Parametric or non-parametric variance analyses were used. For other topics, chi-squared (x^2) tests were performed, namely to assess the association between the different groups of STUD, PROF and ORCH and the corresponding item. The decision rule used consisted of detecting statistically significant evidence with a probability value (test p value) of less than 0.05. In addition to this, the survey provided 204 individual comments in answer to the open-ended questions

asked in each section. These comments were considered for a more in-depth discussion according to the topics and population groups, and subject to qualitative analysis methods (IPA: *Interpretative Phenomenological Analysis*; Smith, 1995).

The methodology and processing of the study data were reviewed by two researchers in order to afford the project greater feasibility and scientific sustainability. Five specialists were subsequently interviewed on the results obtained in the data analyses who indicated points needing additional or more in-depth clarification (Carmo & Ferreira, 2008). Like the individual comments made in response to the open-ended questions, these interviews were transcribed in full and subject to a qualitative content analysis (IPA: Interpretative Phenomenological Analysis; Smith, 1995).
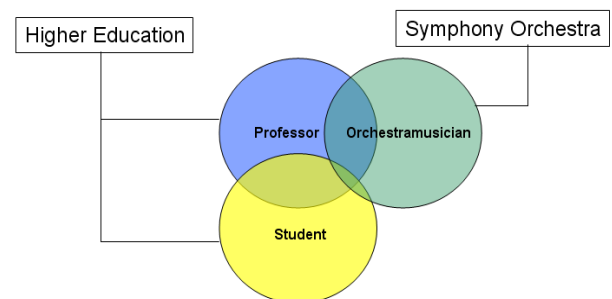
2 | Fig. 2: Field of Research and Participants.

3. RESULTS

The results of the study showed that the double bass is still played mostly by males: The male population rate was 72% in the STUD group, 79% in the PROF group, and 100% in the ORCH group.

As regards the average age of the participants, the results showed that the average age in the STUD group was 23 years for males and 21 years for females; in the PROF group it was 50 years for males and 41 years for females, and finally, in the ORCH group it was 41 years, males only. The average age at which all the groups started playing the double bass was 14 to 15 years. However, in some cases, the initial age varied between 3 years and 20.

In all the groups, a high percentage of the participants gained practical experience by learning other instruments, which they learned for 4 to 7 years before switching to the double bass. The experience gained with other instruments together with the range of starting ages, were very different from what we see with other instruments, such as for example, the violin. These results thus confirm those of the similar study undertaken by Langner (2003).

Unlike members of the PROF group (36.4%) and the STUD group (24.6%), the §majority of members of the ORCH group (52%) only practise regularly when they have important performances, indicating that regular practice is dependent upon the musician's professional occupation. Double bass players in orchestras usually have to deal with an intensive schedule of daily rehearsals and weekly concerts whilst professors and students may have more time available to build up their repertoire. Additional comments were made regarding these issues which seem to confirm this fact.

In terms of study time, the PROF group (78%), the ORCH group (76%) and the STUD group (60%) studied between 1 and 3 hours per day, whilst 35% of the STUD group studied from 4 to 6 hours per day. Unlike the PROF and ORCH groups (38%), the STUD group (73%) considers *études* as key to their practice.

In addition, all the groups were fairly uniformly balanced in terms of study contents regarding learning of new repertoire, renewing repertoire already played and developing and perfecting technical concepts.

The PROF group (80% - 100%) proved to be the most knowledgeable with regard to study practice, followed by the ORCH group (50% - 85%) and the STUD group (35% - 84%), except in relation to meta-cognitive concepts, where the PROF (58%), ORCH (50%) and STUD (64%) groups reported that they were not yet familiar with these concept. Generally, the results obtained in this area indicate that the majority of participants know about practice concepts and that the topics of instrumental research have the potential to be applied to benefit the musician. In terms of the use of audiovisual and computer resources to support study, the results showed that only 17.9% of the ORCH group, 29.6% of the STUD group and 42.9% of the PROF group made audio recordings of themselves and a mere 7.6% of the STUD group, 14.3% of the ORCH group and 28.6% of the PROF group recorded their practice on video. The use of computer software to aid study was indicated by STUD (20.3%), ORCH (25.9%) and PROF (50%), and the use of MIDI accompaniment was indicated by ORCH (11.1%), STUD (25%) and PROF (28.6%). These results show a low rate of usage of audio, video and computer technology across all the groups. At a time when music recording equipment and technology in general is so easily accessible, we might have expected greater use of such means of communication. Listening to audio CDs and watching instructional DVD's scored more highly: PROF (57.1% for DVD – 71.4% for CD), ORCH (44.4% for DVD – 59.3% for CD) and STUD (35% for DVD - 65.4% for CD). It is noted that CD recordings received a higher score than DVDs.

Indications obtained in the Lifestyle section revealed that all the groups enjoy their work and profession as a double bassist (95.1% -100%). Nevertheless, ORCH (40%) STUD (27.2%) and PROF (22.2%) have, at some point in their careers, considered pursuing another activity.

The PROF group was the most active in performing sports on a regular basis, whilst the ORCH and STUD groups showed less activity in this area. In addition to this, 43% of the PROF group, 32% of the ORCH group and 19% of the STUD group stated that they have other professional qualifications, activities or experience.

4. CONCLUSION

The results of this study revealed a strong professional relationship and influence between professors and their students. The PROF group is the most experienced in all performance domains, having obtained higher academic qualifications than the members of the ORCH and STUD group. However, students showed a clear tendency towards following their professors in all areas, although their profes-

sional opportunities are still much more limited. Early learning on the double bass was identified as one of the potential key factors in a prospective professional career. This has obvious implications in terms of early learning methodologies and on the provision of appropriate instruments to young musicians. The low use of technology, given such a great investment of practice time to achieve competitive level in the area of performance and in the profession, is another point which requires further investigation. The proposal is that the use of a broader perspective of learning, self-assessment and the use of technology to support practice must be considered in order to ensure the learning concepts are more effective.

5. CONTRIBUTION OF THE STUDY

The main contribution of this study lies in its design, procedure and results. Firstly, the study brought together a broad spectrum of learning, performance topics and areas, focusing on the double bass. Secondly, an extensive database was created, pertaining to an international population of double bassists. Thirdly, the conclusions of this study provide detailed information for choosing the bow, posture, left hand conceptions, individual study concepts and a critical review of the choice of methods and études.

Finally, a model of expertise was proposed for double bassists who aim to ensure that their skills are developed effectively based on a multifaceted survey. It is hoped that future studies carried out by researchers and double bassists will confirm and broaden these results as well as applying them to benefit learning of the instrument.

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BIOGRAPHICAL INFORMATION

Florian Pertzborn is Co – Principal Double Bassist with the Concerthouse Orchestra OSPCM - Casa da Música, professor of Double Bass at the Superior School of Music and Performing Arts ESMAE/IPP and Associate Researcher at the CITAR - Catholic University of Porto. He graduated from the University of Music Würzburg, obtained his Master degree from the University of Sheffield and concluded his PhD at the Catholic University of Porto.

He recently was visiting professor at the Norwegian Academy Oslo, the University of Berlin, the Pennstate University and at the Conservatoire National Superior de Paris. His research in performance science has been published with the International Society of Performance Science, Schott International, Orpheus - London, PerMusi - São Paulo and the Forum IPP.