

THE DEVELOPMENT OF FUTURE MUSIC TEACHER'S HARMONIC HEARING: EXPERIMENTAL LEARNING STRATEGY

Gaļina Zavadska & Jelena Davidova

Daugavpils University, Latvia

Abstract

The development of harmonic hearing is a vital part of music teachers' training, since the quality of intoning in a choir or a vocal ensemble depends on the level of harmonic hearing. A well-developed harmonic hearing is, by right, considered to be a high stage of professional musical hearing and is of greatest importance for the future music teachers.

In the contemporary music pedagogy, the issue of developing a learning strategy is a topical problem. The paper is concerned with the possibility of employing *Experimental Learning* strategy in the practice of teaching sol-fa.

KEYWORDS: the development of harmonic hearing, experimental learning.

Introduction

The contemporary higher music education is undergoing considerable changes in its content, forms and methods, since innovations are sought for in all spheres of human activity. This, in turn, entails raising the level of requirements for professional training of future music teachers. Training of a competent music teacher is impossible without developing musical hearing, because the quality of intoning in a choir or in a vocal ensemble depends on the developmental level of harmonic hearing. A well-developed harmonic hearing is justly considered a high stage of professional musical hearing and is of great importance for a future teacher of music.

The issues concerning specific properties of harmonic musical hearing have been highlighted in the contemporary music pedagogy quite extensively (Teplov, 1947; Sloboda, 1988; Petrushin, 1997). However, at present there are often contradictory perceptions about the nature and ways of developing harmonic hearing. One difficulty arises from the fact that a collective teaching at sol-fa classes in higher education establishment often conflicts with students' individual peculiarities and problems of developing hearing. The designing of pedagogical strategy is quite a topical problem in contemporary music pedagogy. Learning strategy combines all components of music education: aims, tasks, content, tools of implementation; and besides, these components always relate to culture and traditions of each country.

Research aim: to explore the possibility of employing *experiential learning* strategy (David Kolb's (1984) model) for developing harmonic hearing of future music teachers.

Theoretical background of the research

The effectiveness of any teaching process depends on its strategy. In its broadest sense, a pedagogical strategy implies a theoretical elaboration of key directions for a pedagogical activity, and projecting a pedagogical process (Кларин, 1989). A lecturer is the author of his strategy. However, strategy is being built not only on the basis of lecturer's own knowledge and experience, but also on his abilities to draw on the experience accumulated by pedagogy and to comprehend this experience creatively.

Contemporary music education is focused on those learning strategies which allow motivating and involving students in a study process. Music education in a higher education establishment is attributed to the category of professional education. A contemporary music teacher has to acquire professional knowledge, skills and abilities to be able to work successfully at school.

The effectiveness of musical activity depends, firstly, on the development of musical hearing (Petrushin, 1997; Kazkayasi, Yetiser & Ozcelik, 2006). Harmonic hearing is one of the components of musical hearing (Teplov, 1947). A consecutive and purposeful development of harmonic hearing is an integral part of polyphonic choral singing. The quality of intoning in a choir or in a vocal ensemble depends on the level of the development of harmonic hearing (Zavadska, 2012). In Latvia, the development of harmonic hearing takes an important place in the process of training future music teachers, because a music teacher is a conductor of a school choir or a conductor of some other choir collective.

In modern music education of Latvia, the major task of sol-fa is an all-round development of musical hearing. Sol-fa is a practical discipline requiring regularity in acquiring practical professional skills.

David Kolb's model reflects stage-by-stage formation of adults' mental actions. Kolb's cycle is a four-stage cycle, developed empirically, and shows how a person learns. The principle underlying D. Kolb's theory is the assumption that a specific learner's experience provides the basis for observation and analysis. Further, these observations are transformed into abstract concepts which give new sense to the subsequent active actions. And so on, round in a circle (Kolb, 1984).

The cycle can be described in the following way:

1. *Concrete Experience;*
2. *Reflective Observation;*
3. *Abstract Conceptualization;*
4. *Active Experimentation.*

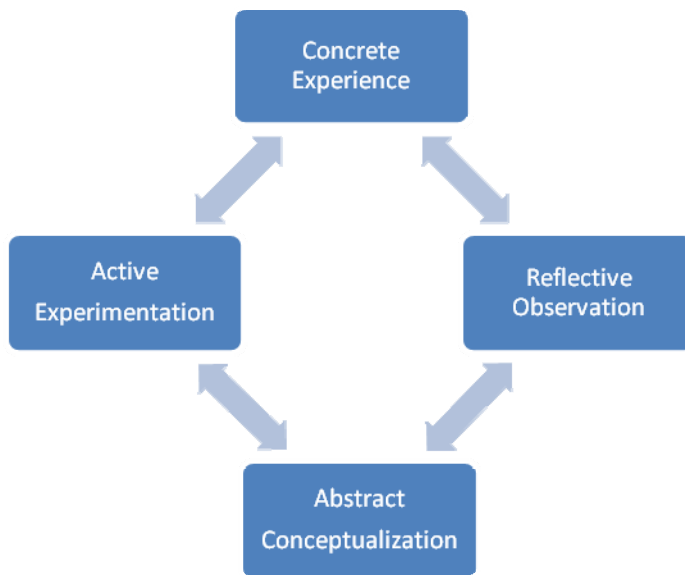


Figure 1. D. Kolb's Cycle of Experimental Learning (1984)

According to D. Kolb, learning consists of repeated stages: implementation and thinking. This implies that it is impossible to effectively learn something by simply reading about this subject, learning theory and listening to lectures. Learning cannot be effective, if during this process new actions are performed thoughtlessly, without analysis, reflection and without summing up. In experiential learning emphasis is laid on the learning process itself. Therefore, on the basis of D. Kolb's model (Experiential Learning Model), stages of learning strategy employed in teaching sol-fa at a higher education establishment can be defined:

1. Diagnostic (initial control of knowledge and skills of the testees);
2. Observational (collection of information about the group of learners observed);
3. Analysis and processing (determining the character and dynamics of the testees group);
4. Designing a specific thematic plan for classes, using the obtained and processed information in new situations.

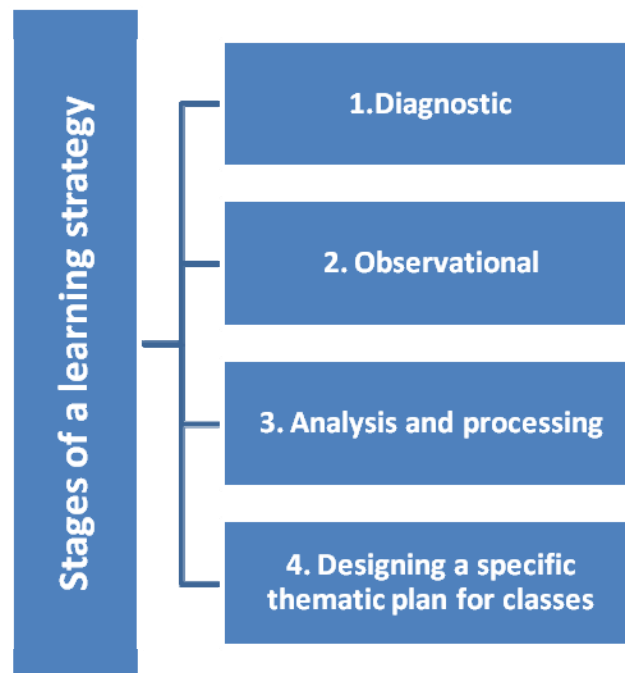


Figure 2. Stages of a learning strategy

Characterization of Stages of the Development of Harmonic Hearing on the basis of D. Kolb’s Model (Experiential Learning)

1. Diagnostic

The preliminary diagnostic data about the developmental level of students’ harmonic hearing on a definite stage of their development are the main information for the analysis of the previous pedagogical experience and the construction of a further pedagogical process. The problem of diagnostics of musical abilities is one of the principle issues in music pedagogy (Stumpf, 1883; Swanwick, 1999; Brophy, 2000; Adams, 2001; Campbell, 2008). Diagnostics of musical abilities is humanistic-oriented, since it contributes to selecting the most adequate ways and methods for constructing teaching by taking into account learners’ individual peculiarities. The current diagnostics requires searching for new adequate diagnostic methods, and *the method of personal constructs* can be one of them (Zavadska, 2013a). The method of carrying out various diagnostic control assignments is also possible (Zavadska, 2013).

English psychologists P. Honey and A. Mumford (Honey & Mumford, 2000), sharing D. Kolb’s ideas, have described different learning styles and have worked out a test for identifying the preferred learning style. The researchers assert, that within the general cycle of empirical learning people start learning from the preferred style.

P. Honey and A. Mumford distinguish four learning styles: “activist”, “reflector”, “theorist” and “pragmatist”.

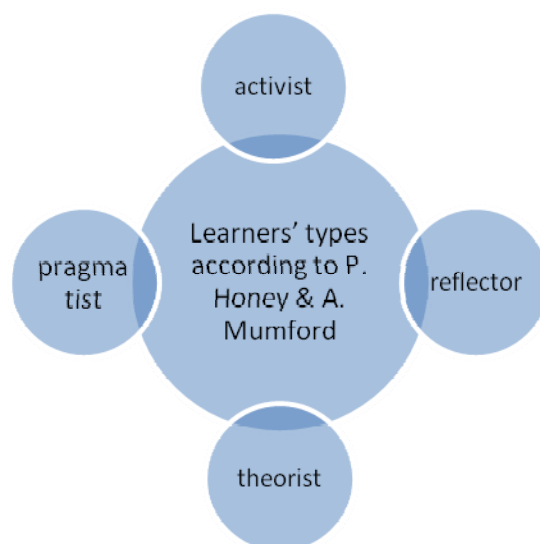


Figure 3. Learners' types according to P. Honey & A. Mumford (2000)

Each type of learners has their own behavioral peculiarities, own demands concerning both the learning process and other participants of this process. In case of a group teaching, to which a sol-fa course in a higher education establishment belongs, students learn all together and one from another.

The combining of different stages of the cycle gives four different styles/stages of learning according to P. Honey & Mumford, which both intersect with D. Kolb's model and also differ from it.

On the basis of the learners' types (Honey & Mumford, 2000) and the table for practical use of D. Kolb's model developed by G. Bazarova (Базарова, 2013), the diagnostic questions for music teachers can be formulated. The results yielded by the diagnostic survey can be employed when a sol-fa class structure, oriented towards the development of students' harmonic hearing, is developed.

2. Observational

Observation is one of methods for exploring a pedagogical process: it is related to perceiving and studying a pedagogical process in real conditions (Kushner, 2001). Observation is also a method for collecting initial information.

Within the frame of this research, pedagogical observation requires developing a program which would include a comprehensive exploration of the development of harmonic hearing in different conditions and pedagogical situations, as well as classifying facts which correspond to the research aims.

3. Analysis and processing

At the given stage of the research, the qualitative and statistic analysis of the results yielded by the diagnostic research is made. The results obtained from the diagnostics of students' learning styles help to determine the dominant learning style of a specific group.

According to the overall grades of students' individual indicators, the obtained diagnostic results under the analysis can serve as the basis for developing a further strategy and possible methodology for work on developing future music teachers' harmonic hearing.

4. Designing a specific thematic plan for classes

At developing David Kolb's idea, the Swedish researcher in the field of education, Klas Mellander (Mellander, 1993), represented the learning cycle in the following way:

- Motivation: psychological readiness and susceptibility;
- Information: facts and data are transformed into information;
- Processing: information is transformed into experience and understanding;

- Conclusions: the moment of “dawning upon” when the experience and understanding transform into knowledge;
- Employment: knowledge is transformed into skills and approaches;
- Feedback: further reflection and improvement.



Figure 4. K. Mellander’s learning scheme (1993)

K. Mellander’s learning scheme may become a basis for determining the structure of sol-fa classes oriented to the development of harmonic hearing of future music teachers.

On the basis of the diagnostic characteristics of students’ learning style, at developing the structure of sol-fa classes the main emphasis may be put on a variety of forms of classes. On the whole, the algorithm of conducting classes may be like this:

Table 1. Algorithm of conducting classes

Nr.	Stage of a class	Time
1.	Organizational part. Motivation- the beginning of a class: demonstration by a lecturer of examples on the theme to be learnt, opportunities to use skills of intoning intervals in practice.	
2.	Checking how theoretical and practical music material has been learnt (including also independent home assignment); practical examples for the analysis of intervals (“auditory attack”)	
3.	Learning the new material	
4.	At the stage of assessment a lecturer has to assess students’ newly acquired knowledge and skills	
5.	Debriefing – is summing up the conducted class	

Each stage of the class has a definite aim.

- Motivation - the initial stage whose aim is to rouse students’ interest about the theme taught, concentrate their attention and demonstrate the necessity or practical use of the offered teaching material. The effectiveness of acquiring the taught material depends largely on motivation.
- Control – is an essential stage of work which helps a lecturer to determine the level of the acquisition of the covered theoretical and practical music material by students.
- Learning the new material – is the main stage of work when the students acquire new knowledge and skills needed for fulfilling professional tasks.
- At the stage of assessment a lecturer has to assess students’ newly acquired knowledge and skills. The assessment should be objective and flexible enough. Besides, the assessment may be given by the lecturer to a group (ensemble singing), and it may also be students’ self-assessment.
- Debriefing – is summing up the conducted class. M. Ments (Ments, 1998) points out that at the stage of debriefing, it is vital that students would abstract themselves from the content of the given situation and would make the analysis of what is happening. At this stage, the lecturer discusses with the students what has been done effectively during the class, what – less effectively, listens to the remarks made, summarizes the covered material in the end, and motivates students for further independent studies of the material on the theme.

Conclusions

1. The strategy *Experiential Learning* directed towards practical learning can be employed in sol-fa teaching/learning practice at a higher education establishment. Taking D. Kolb’s model

(Experiential Learning Model) as the basis, we can determine the stages of practical learning strategy, to be used for teaching/learning sol-fa:

- diagnostic (initial control of knowledge and skills of the testes);
 - observational (collecting information about the group of learners observed);
 - analysis and processing (determining the character and dynamics of the group of the testes);
 - designing a specific thematic plan for classes, using the obtained and processed information in new situations.
2. The results of a diagnostic survey, done on the basis of learning styles by P Honey and A. Mumford, can be employed at developing sol-fa class structure oriented towards developing harmonic hearing of students – future teachers of music.
 3. The learning strategy allows choosing an adequate diagnostic procedure for the beginning of teaching, and determining the succession in which work is to be done during the educational process.

References

1. Adams, P. (2001). Assessment in the music classroom. *Chr. Philpott (Ed.) Learning to Teach Music in the Secondary School*. London & New York, 163-176.
2. Brophy, T. S. (2000). *Assessing the Developing Child Musician: A guide for general music teachers*. Chicago: GIA Publications, Inc.
3. Campbell, P. (2008). *Musician and Teacher: An orientation to music education*. W.W. Norton & Company, Inc.
4. Honey, P. & Mumford, A. (2000). *The Learning Styles Helper's Guide*. Maidenhead: Peter Honey Publications Ltd.
5. Kazkayasi, M., Yetiser, S. & Ozcelik, S. (2006). Effect of musical training on musical perception and hearing sensitivity: Conventional and high frequency audiometric comparison. *The Journal of Otolaryngology*, 35 (5), 343-348.
6. Klarin, M. (1989). Pedagogical Technology in the Educational Process [Педагогическая технология в учебном процессе.] Moscow: Znanie (In Russian)
7. Kolb, D.A. (1984). *Experiential Learning: Experience as the source of learning and development*. Prentice-Hall, Inc., Englewood Cliffs, N.J.
8. Kushner, Y. (2001). Methodology and Methods of Pedagogical Research [Методология и методы педагогического исследования (учебно-методическое пособие)], Mogilev: MGU (In Russian).
9. Mellander, K. (1993). *The Power of Learning: Fostering employee growth*. Publisher: McGraw-Hill Trade. ISBN-10: 1556238932. Retrieved [21.03.2013] from <http://www.goodreads.com/book/show/4630891-the-power-of-learning>
10. Ments, M. (1998). *Rollenspiel: effektiv. Ein Leitfaden für Lehrer, Erzieher, Ausbilder und Gruppenleiter*. München: R. Oldenbourg Verlag (EGS-Texte). ISBN 3-486-02699-2
11. Petrushin, V. (1997). *Psychology of Music [Музыкальная психология]* Moscow: Vlado (in Russian).
12. Sloboda, J. A. (1988). *The Musical Mind: The cognitive psychology of music*. Oxford: Oxford University Press.
13. Stumpf, K. (1883). *Tonpsychologie*. Leipzig: Hirzel.
14. Swanwick, K. (1999). *Teaching Music Musically*. London, New York: Routledge.
15. Teplov, B. (1947). *Psychology of Music and Musical Abilities [Психология музыки и музыкальных способностей]*. Moscow (in Russian).
16. Zavadska, G. (2012). Theoretical basis of harmonic hearing. *A. Šlahova (Ed.) Scientific Articles of 7th International Conference "Person. Color. Nature. Music"*. Daugavpils: Daugavpils University Academic Press "Saule", 275-285.
17. Zavadska, G. (2013). The analysis of results obtained at diagnosing the development of prospective music teachers' harmonic hearing. *The Changing Face of Music and Art Education: Inspiration and improvisation. Interdisciplinary Journal for Music and Art Pedagogy*. Volume 5/1 –Tallinn, 129-149. ISSN 2228-0715
18. Zavadska, G. (2013a). Method of Personal Construct as a Kind of Diagnostic Research on Prospective Music Teacher's Harmonious Hearing. *J. Davidova (Ed.) Problems in Music Pedagogy*. Volume 12, Daugavpils: Daugavpils University Academic Press "Saule", P. 31-43.
19. Базарова, Г. Менеджер по персоналу . [Staff Manger] Retrieved [22.10.2013], from <http://www.hr-portal.ru/article/osobennosti-obucheniya-vzroslyh>

DIE ENTWICKLUNG DES HARMONISCHEN OHRES BEI KUNFTIDEN MUSIKLEHRERN: STRATEGIE EXPERIMENTAL LEARNING

Gajina Zavadska & Jelena Davidova

S u m m a r y

Die Entwicklung des harmonischen Ohres ist ein wichtiger Teil der Vorbereitung von Musiklehrern, denn davon hängt das Niveau der Intonierungsqualität eines Chors oder eines Vokalensembles ab. Ein gut entwickeltes harmonisches Ohr wird mit Recht als eine hohe Stufe des professionellen Ohres für Musik angesehen und hat eine große Bedeutung für die zukünftigen Musiklehrer.

Ein recht aktuelles Problem der modernen Musikpädagogik ist die Ausarbeitung der pädagogischen Strategie. Die Bildungsstrategie vereinigt alle Bestandteile der Musikausbildung: Ziele, Aufgaben, Inhalt, Realisationsmittel, dabei sind diese Bestandteile immer mit Kultur und Traditionen in jedem Staat verbunden.

Research aim: die Anwendungsmöglichkeit der Strategie *experiential Learning* (David Kolbs Modell 1984) für die Entwicklung des harmonischen Ohres der zukünftigen Lehrer erforschen.

Sol-fa ist eine praktische Disziplin, die das System in der Beherrschung von praktischen professionellen Fähigkeiten fördert.

Laut D. Kolb besteht die Bildung aus den wiederholten Etappen: Erfüllung und Denken (Kolb, 1984). Das bedeutet, dass das effektive Lernen unmöglich ist, wenn man über dieses Fach nur etwas liest, Theorie lernt oder Vorlesungen besucht. Das Lernen kann nicht effektiv sein, wenn in seinem Verlauf neue Handlungen gedankenlos, ohne Analyse, Reflexion und Schlussfolgerungen erfüllt werden. Der Akzent des experimentellen Lernens wird auf den Lernprozess gelegt. Deshalb, sich an D. Kolbs Modell orientierend (Experiential Learning Modell), kann man strategische Etappen des praktischen Lernens bestimmen, die im Unterrichtsprozess von Sol-fa in den Hochschulen verfolgt werden:

- diagnostische Etappe (Anfangskontrolle der Kenntnisse und der Fähigkeiten bei Probanden);
- beobachtende Etappe (Sammeln der Informationen über die Probandengruppe);
- Analyse und Bearbeitung (Bestimmung des Charakters und der Dynamik der Probandengruppe);
- die Bearbeitung des konkreten thematischen Unterrichtsplans, der Gebrauch der erhaltenen und bearbeiteten Informationen in neuen Situationen.

Unter der Beachtung der Typen der Lernenden (Honey & Mumfords, 2000) und bei Benutzung von G. Bazarovas (Базарова, 2013) Tabelle für die praktische Benutzung des Modells von D. Kolb können diagnostische Fragen für die zukünftigen Musiklehrer ausgearbeitet und bestimmt werden. Die Ergebnisse der diagnostischen Umfrage können bei der Ausarbeitung der Struktur von Unterrichtsstunden in Sol-fa mit Orientierung auf die Entwicklung des harmonischen Ohres der Studenten – zukünftiger Musiklehrer - benutzt werden. Die Strategie des Lernens lässt eine passende Diagnose am Anfang des Lernprozesses erstellen und die Reihenfolge der Arbeiten im Lernprozess bestimmen.

Im Artikel wird die Anwendungsmöglichkeit der Strategie *Experiential Learning* im Sol-fa-Unterricht erörtert.