

MODERN TEACHING OF HOME ECONOMICS AND TECHNOLOGIES IN LATVIA: THEORETICAL AND PRACTICAL ASPECTS

MŪSDIENU MĀJTURĪBAS UN TEHNOLOĢIJU DIDAKTIKA LATVIJĀ: TEORĒTISKIE UN PRAKTISKIE ASPEKTI

Elita Volāne, Dr. paed.,
Riga Teacher Training and Educational Management Academy, School Pedagogic
Department, Imantas 7. līnija 1, Riga, LV-1083,
phone 7808133, elita.volane@rpiva.lv

Abstract. In the pedagogical process based on humanitarian education paradigm it is important to promote the development of every student's identity, ensuring its expression in the acquisition of life skills activities. The mission of modern education, including the subject of home economics and technologies, is to assist in acquiring the skills that are required in different areas of life: working, learning, personal and public life.

By acquiring and analyzing home economics and technologies teaching methodology, it can be stated that the founder of handicraft methodology in Latvia, as well as representatives of the didactics offer a variety of approaches based on European folk traditions in the promotion of the students' skills development. Latvian educational classics are to a large extent influenced by European educational traditions and thus blend together well.

The aim of the article is to explore and discover the theoretical basics of the didactics of home economics and technologies and to develop their importance in the process of teaching content acquisition of modern home economics and technologies at the elementary school.

Nowadays, the integral approach is typical to the organization of the learning process of home economics and technologies. The teacher's ability to associate the teaching content with real life situations, methodological techniques that focus on the activation of students' learning activities, aspects of personality development where mental and physical unity is implemented, and real world mental, emotional and volition harmony developed.

Key words: Home Economics and Technologies, didactics, teaching methodology.

Introduction

Changes in modern society and economy rely on new requirements for modern, high quality and competitive education highlighted to the education system. It has been confirmed by the continuing quest for the last twenty years in the education system in Latvia.

Today's educational goals, according to I.M.Rubana, choose active cognition-enhancing teaching methods, work organization forms, developing learning skills: finding the information one needs, using different sources of information, memorizing, thinking, judging, and deciding, organizing oneself to work. A person possessing such skills, at any time, will be able to obtain the necessary information and use it in one's professional, social and private life (Rubana, 2000).

Rapid scientific and technical progress, including information technologies affects the learning process of Home Economics and Technologies teaching content, where it is important to help with the acquisition of skills required in different areas of life.

The use of up-to-date handicraft learning content is determined by several factors:

- Changes in the curriculum of Home Economics and Technologies.

- Changes in the target of the subject, which requires every student to learn the skills to plan and organize personal housekeeping independently, to gain an understanding of human habitat conditions and opportunities to improve them.

- Indications in the new subject standard that 25% of the curriculum has to be acquired theoretically (Regulations in the National Standard of Elementary Education and Elementary Education Teaching Standards, 2006).

Practice proves that there is a discrepancy between the existing curriculum of Home Economics and Technologies and its implementation at school, due to inadequate implementation of the curriculum in accordance with the requirements of the standard.

Research objective: to explore and discover theoretical basics of didactics of Home Economics and Technologies, and escalate their significance in the process of acquisition of modern Home Economics and Technologies teaching content at elementary school.

Research methods

Study methods: a theoretical method - scientific and methodical literature analysis, empirical methods - practical experience analysis.

Results and Discussion

Historical experience shows that the name of “Home Economics and Technologies” (handicrafts, household, housekeeping (handicrafts), housekeeping) has been changed as a result of different school reforms. The original literature offers the term - teaching methodology, only in the last few years it is called didactics, therefore there is a need for further clarification. The didactics, according to I.Žogla, represents a very complex area of human activity. It is a unifying concept, which covers the mutual need of teaching and learning, and, in this context, dependence and conditionality relationship of two more people in a specific targeted interaction (I.Žogla, 2001, 5).

Pedagogical terms glossary defines didactics as a science of education and training. It is an educational sector, which studies general patterns of the learning process independently to specific features of a subject. Specific features are studied by subjects teaching methodologies. Didactics generalizes specific experiences of methodologies, but methodologies, in their turn, use generalized insights and recommendations of didactics (Pedagogical Terms Glossary, 2000, 71).

The goal of “Home Economics and Technologies” subject in the standard is to develop a student’s awareness, skills of human habitat’s safety, quality conditions and their improvement opportunities, to promote a student's practical action and social cooperation skills development, so

that everyone is able **to plan and organize personal housekeeping** independently, comply with safety conditions, handle extreme situations adequately and engage competently in the implementation of a technological process (Regulations in the National Standard of Elementary Education and Elementary Education Teaching Standards, 2006). Thus, curriculum of Home Economics and Technologies is the totality of knowledge, practices and attitudes that students learn to develop their intellectual, emotional, volition scope, improve their labour skills and habits (Volāne, 1997, 9). Therefore, there is a need to cognize theoretical basics of didactics, its methods, teaching techniques and work organization forms in the curriculum acquisition process.

A variety of opinions on skills building methods can be found in literature. Only in the 1970s they started searching for methods of labour skills development in science. A. Ļubļinska affirms the skills are formed *as a result of such exercises*, where skills formation conditions are built, that is, one can periodically compare the obtained results with the standard, be aware of errors and try to correct them (Ļubļinska, 1979). As demonstrated in the references, handicraft training from form one contains such types of tasks where one can realize not only skills formation conditions developed by A.Ļubļinska, but also V.Zelmenis' cognition that children's elementary skills are developed *as a result of experience and imitation* (Zelmenis, 1991, 64).

Here is the place for **perception, observation, collation and movement coordination**. In particular, it is possible to realize it at the elementary school handicrafts training because the curriculum includes such topics as composition, working with natural materials.

In theory skills are defined as a type of activity and operations. Precondition of action is the ability to perform any activity in accordance with required quality and quantity. V.Zelmenis states that a skill is such a level of knowledge and techniques that allows one to use knowledge in targeted actions (Zelmenis, 2000, 64). In her turn, I.Žogla believes that skills are a capacity to act based on knowledge, in order to achieve the goal under certain conditions, by selecting a suitable form (Žogla, 2001, 224). In this case, one understands the skills as an activity fragment for the achievement of the objective, where the knowledge and skills are inseparable.

Nowadays, Home Economics and Technologies curriculum is related to the acquisition of **function of life skills**, that is, to the ability to decide on the target and operate on the basis of knowledge and attitudes.

Studying the origin of handicrafts teaching methodology, it must be recognized that it is based on profound and significant roots. It relates to K.Cīrulis, who while working as a tutor of St. Petersburg Teachers Training Institute, doing research work on handicraft study in Western European countries and Northern Europe, Switzerland, Germany and Denmark, complements to his

theoretical knowledge and experience with the latest pedagogical knowledge. K.Cīrulis' practical activity is also important in organizing and conducting the first extensive courses for teacher preparation. The main audience, according to E.Pētersons, was Latvian and Estonian teachers (Pētersons, 1931, 89).

In the coming years, M. and R. Bīlmaņi work out pedagogical basics of composition, where one can find methodical comments and guidance, that composition up to the age of 13 and 14 is considered as a learning tool for all subjects and not as a separate subject. The authors point out that during the first school years composition is considered as a game that promotes a child's imagination and capacity development (Bīlmaņi, 1920, 7). The authors' methodical recommendations for teachers include pedagogical cognitions on *the correspondence* of composition works *to the child's age*, its correlation to extensive brain centres and, being based on the child's tactile sense, provide it with the most complete impression (Bīlmaņi, 1920, 8-12).

M. Bīlmane's paperwork methodology is equally important, discovering not only different ways to learn the skills to cut with scissors, but also methodical recommendations for basic skills and notions acquisition in other subjects in the first years of elementary school (Bīlmane, 1924).

I must say that M. Bīlmane's methodical recommendations were used while working on a training set "Practical Mathematics" for form 1 where students simultaneously learn different skills in mathematics, handicraft technology, seeing things in context (Krastiņa, Limanoviča, Drelinga, Volāne, 2008, Limanoviča, Krastiņa, Volāne, 2008). Variation of methods, techniques, as well as observance of *a step-by-step approach*, and acquisition of a new training technique by seeing things in context, enriches a student, enabling new capabilities of one's intellectual development.

M. Bīlmane's methodical recommendations provide with many opportunities for students to acquire a variety of skills not only in the subject of Home Economics and Technologies but in the learning process in general. On the basis of the relevance of the problem and M. Bīlmane's recommendations "Scissors Cuts", we offer the possibility to use scissors cuts nowadays as well, for students' development and various skills acquisition (Volāne, 2010).

Regarding observance of students' *interests* V.Miezītis' methodical recommendations for boys' practical work are important, selecting a simple technique (Miezītis, 1925). The author recommends to use wood as a source material, a knife as a tool, stating that the work does not require special facilities. Therefore, nowadays it is also recommended to offer wood curving or cutting a shape from pine bark for boys' practical activities at elementary school.

With regard to girls' handicraft technologies E.Fārta has developed recommendations to teachers on how to realize *the principle of individualization and differentiation*, planned for more capable girls who do the work faster than scheduled in the curriculum (Fārta, 1927, 37).

R.Zeidels' cognition has great benefit in the handicraft teaching development that handicraft and related movements, senses are not only the source of information, but there is a harmonious education and upbringing foundation, and that *visuality* is an important part of learning handicraft (Zeidels, 1926, 8). Many author's ideas have proven their significance over the years, being relevant even today. R. Zeidels admits that crafts are an experimental subject; it is a theory test for some theoretical training, which offers definite basis and interest (Zeidels, 1926, 18).

Nowadays, there is a major recommendation of A.Panteļejevs that in handicraft children do not need to be taught exclusively to prepare products by setting it as the ultimate objective of their handiwork, but to educate them *to work and by means of work*. A.Panteļejevs emphasizes that the most important task is the formation of tidiness habits (Panteļejevs, 1936). When adjusting the boys' drawings of forms 2 and 3, there is a recommendation not to require the drawing to be exact because fine fingers musculature is not well enough and strongly developed. According to the students practical work results, one judges on each individual student's abilities. Nowadays there is a topical A. Panteļejevs' cognition that practical work is also a major subject requiring for a teacher's high energy and interest. A proposed suggestion in the curriculum *for the facilitation of self-control, self-analysis* requires additional energy from a teacher (Panteļejevs, 1936).

According to A.Panteļejevs, labour skills development process, work results are important, as well as the cognition of work carried out well (Panteļejevs, 1936, 3). Not only independent work is relevant, but also the ability to use the knowledge and skills obtained in other subjects. There is a significant recommendation to focus on the skill of making products that are by design and importance similar to those already made, thus using *one's work experience*.

„Handicraft Methodology” by A. and A. Dzērvīši is the first methodical book, which reveals handicraft training principles, developed in the 1920s-1930s based on educational staff, teachers' cognitions, on the basis of K.Cīrulis' established handicraft theoretical foundation. A. and A.Dzērvīši indicate that teaching methods were also used, when there were no schools. When driving the cattle to pasture children half-playing, half-seriously trained their forces, strengthened patience and stamina by performing simple handicrafts (Dzērvīši, 1937, 7). It began as *simple works in favour of more complex*, thus children were filled with serious work for life, acquiring life-experience operational skills.

Nowadays, based on theoretical knowledge, normative documentation, general didactic principles are activated for the realization at Home Economics and Technologies training in the aspect of the subject standard (see table 1).

Table 1. Didactic Principles of Modern Home Economics and Technologies Training.

No.	General Didactic Principles (National Standard of Elementary Education, 1998, 8-9)	Connection with the requirements implementation in the aspect of Home Economics and Technologies when finishing form 3 (Regulations of the National Standard of Elementary Education and Elementary Education Teaching Standards, 2006).
1.	<i>Learning environment.</i> Favourable atmosphere at lessons.	A teacher's professionalism in organizing and implementing curriculum.
2.	<i>Unity of teaching and upbringing.</i> Learning means not only acquisition of knowledge and skills but also education of values.	One is able to maintain order in the workplace (paragraphs 10.2., 11.7.). (Paragraph 10.11.) is able to evaluate one's activities and results, learn to see positive progress in one's own and others work.
3.	<i>Individual approach.</i> Learning is an individually separate process.	Identification of one's abilities for the development of human habitat (paragraph 12). The teacher's ability to select tasks when acquiring various handicraft techniques (paragraph 11.9.).
4.	<i>Problem-solving approach.</i> Students search for links between the unknown and the known independently.	(Paragraph 11.4.) is able to find and use information from periodicals, books corresponding to a student. Choice of materials and tools for product manufacturing (paragraphs 11.8., 11.9.).
5.	<i>Development, growth.</i> Requirements in accordance with each student's abilities.	Identification of one's abilities for the development of human habitat (paragraph 12). (Paragraph 11.10.) is able to evaluate one's activities and results, learn to see positive progress in one's own and others work.
6.	<i>Connection of learning with practice.</i> Learning process is based on a student's practical life experience.	Knowledge and understanding of human habitat (paragraph 10) and practical and creative use of technologies to improve human habitat (paragraphs 11, 12).
7.	<i>Integrated approach.</i> Integrated learning based on a student's practical daily life experience.	Looking for interconnections between different subjects, such as acquisition of curriculum that is associated with knowledge and understanding of human habitat (paragraph 10) as well as acquisition of a variety of handicraft techniques (paragraph 11.9.) where it is necessary to use the knowledge and skills obtained in other subjects for manufacturing a product.
8.	<i>Continuity and diversity of evaluation.</i> A variety of methods including a student's self-evaluation.	(Paragraph 11.10.) is able to evaluate one's activities and results, learn to see positive progress in one's own and others work.

In practice, we made certain that the acquisition of Home Economics and Technologies curriculum is connected with daily life; there is a need *to encourage* students to work independently, without external assistance. It forms gradual accumulation of skills in the students' experiences. As teaching and education processes are closely related, then the teacher's competence in the acquisition of Home Economics and Technologies curriculum is important to choose such tasks, work organization forms, which are connected with useful products manufacturing, application of practical activity, in accordance with personal development needs.

Application of modern information technologies, including interactive whiteboard opens up new opportunities for the training methodology, use of the most topical information, knowledge, development, self-evaluation. Interactive whiteboard demonstrations allow complementing to the acquisition of learning material with sound and video effects that brings students to real life and thus enhances the emotional world, as well as improving the understanding of the subject matter. Interactive whiteboard, according to A. Bork, provides a direct link between learning material and the external world. In the interactive teaching process a student is a participant, not a viewer of this process, which improves the feedback formation (Bork, 1979).

I must say that practical work in Home Economics and Technologies includes problems of modernization of education. A.Šmite considers that, at the start of something new, there is *uncertainty, confusion, often psychological discomfort*, as one does not have required skills, but quality change is not imaginable without the new methods implementation (Šmite, 1998), S.Byron also confirms if teachers are not prepared to use information technologies in the classroom and are uncertain that information technologies will increase the effectiveness of teaching, then the changes in the process of teaching are not anticipated (Byron, 1995).

The use of video materials in a specific discussion on home economics issues is equally important, which does not only help students understand the matter, but particularly attracts attention, creates interest and motivates for active transaction, for example, visually considering dangerous consequences of ignoring work safety regulations, as well as the need for economy on materials, resources.

Efficiency of the Home Economics lesson can be improved by using an interactive whiteboard, for example, creating a food map, choice of clothing worn in accordance with the conditions or composition. We observed that part of the students learns easier, if they can retell it to others, help others. Pair work, teamwork develops collaborative skills, and also allows students to perform their work faster.

By compiling the analyzed material, it can be concluded that methodological cognitions of handicraft training have not lost their relevance in the acquisition process of modern Home Economics and Technologies curriculum at elementary school. In the acquisition of Home Economics subject content, the teacher's ability to use different teaching methods is important, as well as various methodological techniques that focus on enabling students' learning activities, promoting interest and understanding when acquiring knowledge in relation to daily life. The efficiency of an interactive whiteboard at the lessons of Home Economics is determined by the teacher's professional ability and daring in the choice and realization of new methods.

Conclusions

1. By studying the origin of teaching methodology of Home Economics and Technologies, we may conclude that the founders of handicraft methodology in Latvia, as well as representatives of the didactics offer a variety of teaching approaches based on European folk traditions in the development of students' skills.
2. Nowadays, it is typical to use the integrity approach in the organization of learning process of Home Economics and Technologies, the teacher's ability to link the curriculum with real-life situations.
3. The essential feature in the acquisition of the curriculum of Home Economics and Technologies is the methodological approach, which focuses on enabling the students' learning activities in the aspect of personal development, where the combination of the mental and physical is implemented, mental, emotional and volition harmony in practical operation.
4. The teacher's daring to use interactive technologies during the lesson is significant, when choosing an appropriate form of the learning process organization.

References

1. Bīlmane, M. (1924) *Šķēru griezumī*. Rīga, Kultūras balss izdevniecība, 30 lpp
2. Bīlmaņi M. un R. (1920) *Veidošana skolā un mājniecībā*. Rīga: Kultūras balss izdevn., 40. lpp.
3. Bork A. (1979) Interactive learning: Millikan lecture, American Association of Physics Teachers. *American Journal of Physics*, Vol. 47, pp. 5-10
4. Byron S. (1995) *Computing and other instructional technologies*. New York, 17 p.
5. Dzērvīši A. un A. (1937). *Rokdarbu metodika*. Rīga: Valters un Rapa, 80 lpp.
6. Fārt E. (1927) *Meiteņu rokdarbi*. D. 2. Rīga: J. Rozes apgāds, 103. lpp.
7. Krastiņa, E., Limanoviča, E., Drelinga, E., Volāne, E. (2008). *Mācību grāmatas „Praktiskā matemātika 1. klasei” 1. daļa*. Rīga: Zvaigzne ABC, 88 lpp.
8. Limanoviča, E., Krastiņa, E., Volāne, E. (2008). *Darba burtnīca „Praktiskā matemātika 1. klasei” 1. daļa*. Rīga: Zvaigzne ABC, 64 lpp.
9. Ļubļinska A. (1979) *Bērnu psiholoģija*. Rīga: Zvaigzne, 382. lpp.

10. Miezītis V.(1925). Drāzumi zēnu rokdarbiem. Rīga: autora izd., 36. lpp.
11. *Noteikumi par valsts standartu pamatizglītībā un pamatizglītības mācību priekšmetu standartiem* (2006) Ministru kabineta 2006. gada 23. decembra rīkojums Nr. 1027. <http://isec.gov.lv/normdok/mk061027.htm>. - Resurss aprakstīts 2011.gadā 15. jūnijā.
12. Panteļejevs A. (1936). Zēnu rokdarbi. Lauku un pilsētu pamatskolām. Rīga: Balodis, 272. lpp.
13. Pedagoģisko terminu skaidrojošā vārdnīca. Sastādījis autoru kolektīvs V. Skujiņas vadībā. Rīga, Zvaigzne ABC, 2000, 71
14. Pētersons E. (1931) Vispārīgā didaktika. Rīga: Gulbis, 130. lpp.
15. Rubana I.M. (2000) *Mācīties darot.*- Rīga: RAKA, 240 lpp.
16. Šmite A. (1998) Izglītības vadītāju Forumā. *Skolotājs*, Nr.5, 4-11.lpp.
17. Valsts pamatizglītības standarts (1998). Lielvārdē, Lielvārds, 32 lpp.
18. Volāne, E. (2010) M. Bīlmanes metodiskais mantojums mūsdienu skatījumā mājturības un tehnoloģijas stundās sākumskolā. ATEE Spring University 2010 Teacher of the 21st Century: Quality Education for Quality Teaching. Internationally Reviewed Collection of Articles. Rīga: LU, p. 630. – 639. ISBN 078-9984-49-027-4
19. Volāne, E. (1997) Rokdarbi kā skolēnu darba prasmju veidošanās līdzeklis sākumskolā. Rīga, 68 lpp.
20. Zeidels R. (1926) Rokdarbi kā harmoniskas izglītības un audzināšanas pamats. Rīga: Latvijas skolotāju savienības izdevums, 31. lpp.
21. Zelmenis V. (1991). Īss pedagoģijas kurss. Rīga: Zvaigzne, 213. lpp.
22. *Zelmenis, V. (2000) Pedagoģijas pamati.* Rīga: RaKa, 291 lpp.
23. Žogla, I. (2001) *Didaktikas teorētiskie pamati.* Rīga: RaKa, 275 lpp.