

University of Sopron
Faculty of Forestry

Theses of Doctoral (PhD) dissertation

The role of the main domestic big game species in
education and learning processes

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1. Timeliness of the topic

One of the extremely unique topics of our days is the issue of hunting and wildlife management. Necessary and accurate knowledge for the rising generation should be passed on to parents and teachers, they have the huge responsibility of developing in them a positive attitude related to our main domestic game species.

As the primary socialization arena, the family is where the love of nature, our environment, and the plants and animals living in our environment is established. The role of parents in this process cannot be omitted, as the time spent together outdoors in the forest provides the opportunity to pass on knowledge. The media plays an additional role, which countless times conveys false and negative messages to consumers. Due to the fast-paced world, children spend more and more time using these digital devices, which "enrich" the young generation with unreliable knowledge.

Within an institutional framework, the kindergarten teacher is the first to provide the kindergarten generation with knowledge, thereby preparing them for primary school. In addition to domestic animals, the topic of wild animals is just as important. The kindergarten teacher can provide the right opportunity, time, place, and tools for the transfer of knowledge about the environment within the framework of the activity of getting to know the outside world.

Environmental education is extremely challenging for education. Within the framework of the subject of environmental studies, students acquire the requirements prescribed by the National Basic Curriculum with the help of textbooks, supplemented by the knowledge of the teachers.

In both institutions, teachers' knowledge plays an essential role. With his research, the author draws attention to the fact that teachers' knowledge is incomplete in the subject area of our main game species, game management, and hunting, and the environmental education textbooks included in the current textbook list have incomplete/inaccurate knowledge in the subject area we are examining. The author's research supports the fact that the National Core Curriculum amendment introduced in 2020 harmed the subject of environmental studies.

2. Research aims

One of the goals of the questionnaire research is to assess the knowledge of the student teachers in the field of hunting the main domestic game species, game management, and hunting.

Our goal is also to examine the environmental education textbooks and workbooks included in the 2019/20 textbook list in primary schools using the Kojanitz method using document analysis. The question is to what extent Hungary's main huntable game species are present, and whether the illustrations in textbooks and workbooks on this topic are correct.

The author's investigation focuses on game species that can be hunted in Hungary.

Our other goal was to assess the teachers' evaluation (51 people) of the changes affecting the NAT introduced in 2020, as well as to examine the authentic knowledge of some of our main domestic game species.

These examinations serve as a kind of diagnosis, regarding the extent to which the student teachers and practicing teachers in the profession have authentic knowledge of the subject, how well the textbooks help them in this, whether they are provided with accurate knowledge/images, whether the NAT introduced in 2020 had an effect change to the subject of environmental knowledge, and where deficiencies in the knowledge material can be perceived and how they can be corrected.

3. Research hypotheses

1. Student teachers living in the village have more accurate knowledge of hunting, wildlife management, and our main game species than student teachers in the city.
2. Teacher students studying in the correspondence work system have more precise knowledge of the topic of our main wild species than students studying full-time.
3. Most of the student teachers answer professional-specific questions about the hunter's personality and expertise concerning his or her circle of acquaintances.

4. Up to 50% of student teachers have accurate knowledge of the main domestic game species.
5. Less than 5% of the lower school curriculum contains a section on the main wildlife species.
6. In the lower school textbooks, the core material contains knowledge about several wild species, not the interesting parts or reading sections.
7. In lower school textbooks and workbooks, there are realistic illustrations of wild species.
8. During the preparation of the NAT introduced in 2020 - focusing on the subject of environmental studies - the opinions of the environmental studies teachers I interviewed (51 people) were not asked.
9. The wild animals included in the old 2012 NAT are not consistent with the core material of the -lower-grade- textbook family included in the textbook list.
10. Environmental science teachers do not have adequate knowledge of wild animals.

4. Methods used

Literature and document analysis: During our research, we considered it important to precisely define the basic terms. We put great emphasis on learning about the concepts of environmental education, sustainability, and environmental awareness. We examined the parts of the National Basic Curriculum (NAT 1995, 2003, 2007, 2012, 2020), which have changed several times in recent years, on environmental education and the subject of environmental knowledge. During the analysis of the literature, we discussed the domestic and international history and importance of hunting and wildlife management and environmental education. We collected the guidelines and goals of environmental education, and finally the documents of its legal regulation. In terms of good practices, we also conducted domestic and foreign surveys.

The document analysis covered the examination of lower-school environmental studies textbooks. The contents of the textbooks included in the Hungarian textbook list and the Austrian textbook list were compared.

Questionnaire data collection: In 2019, 173 student teachers completed the survey of hunting and wildlife management knowledge. In 2020, 51 teachers teaching environmental studies reflected on the newly introduced changes in the NAT, and also filled in the questions issued to assess knowledge about our main wild species.

Statistical evaluation, calculations: knowledge of hunting and wildlife management among teacher students, as well as the evaluation of the questionnaire on background factors was done with the help of the SPSS 17.0 statistical evaluation program.

5. Evaluation of hypotheses

The first hypothesis, according to which: "Teacher students living in the village have more accurate knowledge about hunting, wildlife management and our main game species than urban teacher students." could not be proven, since the questionnaire survey carried out on the above topic could not support the connection between village life and general knowledge. All this knowledge is independent of the students' living space.

Our second hypothesis said: "Teaching students studying in the correspondence work schedule have more accurate knowledge of the topic of our main wild species than students studying full-time.". Based on the statistical results, we can conclude that both full-time and correspondence students have a similar opinions about hunting, hunting methods, and damages. After performing the statistical calculations, we discovered significant differences in only a few questions, so we can only partially justify this assumption.

The third hypothesis states: "Most of the student teachers answer the professional-specific questions about the hunter's personality and expertise concerning his circle of acquaintances." We hypothesized that those teacher students who have hunters in their circle of acquaintances have more diverse knowledge than those students who do not have hunter acquaintances.

The hypothesis was rejected since no significant difference can be discovered between the answers of the two investigated groups based on the statistical calculations.

In our next study, we assumed that: "No more than 50% of student teachers have accurate knowledge about our main domestic wild species." After the statistical tests were carried out, we can establish that up to 50% of the student teachers know correctly the knowledge related to the specific main domestic game species. Based on the answers, we can say that less than half of the 173 people have knowledge that can serve as a sufficiently credible source in the course of their pedagogical work when putting together a session related to environmental education.

In light of the results, we can conclude that their knowledge needs to be supplemented in the examined area, so our fourth assumption has been confirmed.

Based on the tests we have carried out, the data supports the fact that the knowledge of most of our main domestic game species is in the second grade. 4.3% of the lines in the textbook contain the examined area. In the case of sentences, we can talk about 4.8%. The fourth grade has the least amount of content about the main wildlife species: 0.5-0.5% of the entire textbook, both in terms of lines and sentences. In light of the above, it can be stated that our fifth hypothesis was confirmed: "Less than 5% of the lower school curriculum contains a section on major wildlife species."

We can only partially confirm our sixth hypothesis, according to which: "In the lower school textbooks, the core material contains more knowledge about wild species, not the parts/sections of interesting things or readings." The results confirmed that the core material in the second and third-grade textbooks contains most of the content about our main wild species. All of these are included in the reading section in the first grade, and in the interesting section in the fourth grade. This can pose a problem since there is not always time for interesting reading sections in addition to the main material within the classroom. The students are given the processing of these parts as a diligent task at home, the effectiveness of which is questionable, i.e. the results remain incomplete in the case of processing in this way.

To prove our seventh hypothesis, we investigated whether there are realistic illustrations in the lower school textbooks and workbooks. We found that the textbooks mostly contain realistic photos taken in the animals' natural habitats.

Examination of the illustrations revealed that individuals of certain species are not shown in separate pictures and are not named. In the workbook, for some species, some illustrations do not correspond to reality, such as the representation of the European roe deer. Based on these, our hypothesis was only partially confirmed: "In the lower school textbooks and workbooks, there are realistic illustrations of wild species."

In our next investigation, we assumed that: "During the preparation of the NAT introduced in 2020 - focusing on the subject of environmental studies - the opinions of the environmental studies teachers I interviewed (51 people) were not sought." Based on the answers to the question, our eighth hypothesis was confirmed, since only two of the teachers claim that the management turned to them with this kind of question.

Our ninth hypothesis was confirmed, according to which: "The wild animals included in the old 2012 NAT are not by the -lower-grade-textbook family's tribe in the textbook list with its material." We found that the majority of respondents find the topic of wild animals important.

Despite this, the deer and fox included in the list are included in the 2nd-grade textbook, where these two wild animals are not even included in the NAT requirements.

After analyzing the questionnaire, it can be concluded that the 51 teachers teaching environmental education do not have adequate knowledge of domestic wild animals, so our tenth hypothesis was proven: "Environmental education teachers do not have adequate knowledge of wild animals."

6. Theses

1. Based on the surveys, I found that student teachers have poor knowledge of hunting, game management and our main game species, regardless of their current place of residence, the nature of their studies, and their circle of acquaintances, so the transfer of knowledge to the younger generation can be problematic and sometimes distorted.

2. Based on the textbook analysis, I found that less than 5% of the lower school curriculum contains a section on the main wild species, the textbooks contain realistic photos taken in the animals' natural habitats, but the individuals of the given species are not shown in separate pictures and are not named, so the workbook - with regard to certain species - contains illustrations that do not correspond to reality. From the obtained results, we can conclude that the incompleteness and sometimes untruthfulness of the illustrations convey misleading information to both children and teachers.

3. Examining the environmental education textbooks using the Kojanitz method, we found that the main material in the second and third grade textbooks contains most of the content about our main wild species. All of these are included in the reading section in the first grade, and in the interesting section in the fourth grade. From the obtained data, we can conclude that the absence of the topic in the core material in the first and third grades negatively affects the students' knowledge level about the examined topic, since it can only be realized if they work on it independently at home as a diligent task.
4. Our results proved that during the preparation of the NAT introduced in 2020, the opinions of the environmental education teachers I interviewed (51 people) were not sought, therefore the introduction negatively affected the subject.
5. Our measurements proved that the wild animals included as a requirement in the old 2012 NAT are not in line with the curriculum of the "Our World" textbook series we examined, so the transfer of this kind of knowledge can be problematic for teachers teaching the subject.
6. Based on the survey of 51 environmental education teachers, we found that most of the respondents find the subject of wild animals important, but do not have sufficient knowledge about them.

7. Suggestions

The results confirmed that neither the student teachers nor the teachers teaching environmental studies have an adequate amount and quality of knowledge in the examined topic. After the content analysis of the currently valid environmental studies subject - focusing on our wild animals - it would be necessary to rethink/think further about the training and implementation possibilities. One such suggestion is, for example, that it would be necessary to include the pedagogy of sustainability and environmental education in all teacher and pedagogue training courses, which would overcome the problem of teachers imparting knowledge who have not even taken such subjects, so the imparting of knowledge is incomplete, sometimes it can be distorted.

Since the examined subject appears in the entire vertical of public education, we have a greater chance of achieving an attitude formation starting from preschool age, which can also help to ensure that the topic of wild animals that I examine, and hunting and wildlife management, results in a more positive opinion/resonance in society.

After the amendment of the National Basic Curriculum, it would be necessary to revise the environmental education textbooks in terms of content, images, and core material, to ensure that the requirements included in the NAT and the textbooks/workbooks are consistent.

The teachers are moving at an extremely fast pace concerning the teaching materials, so it would be necessary to introduce the children to our wild animals and hunting in an experiential way, which they can do even during a forest school visit, with the involvement of competent professionals.

8. Publications in the topic of the thesis

1. MESTERHÁZY, H. (2022): A környezetismeret tantárgy közelmúlt változásainak tanári értékelése In: Kéri, K.; Kissné, Zsámboki R.; Németh, D. & Pásztor, E.(szerk.) Egy nyelvet beszélünk? Gyermeklét és pedagógia a nyelvi, kulturális és társadalmi terek kontextusában - 15. *Képzés és Gyakorlat Nemzetközi Neveléstudományi Konferencia Soproni Egyetem Kiadó.* pp. 109-110.
2. MESTERHÁZY, H. (2022): Teachers' evaluation of recent changes in the school subject environmental knowledge. *Journal of applied technical and educational sciences*, pp. 1-17.
3. MESTERHÁZY, H. (2021): *Topics of major wild species in environmental education textbooks in Hungary and Austria* In: Koncz, I. & Szova, I. (szerk.) XXI. PEME–phd (Online) Konferencia : Tizennyolc éve az európai szintű tudományos megújulás és a fiatal kutatók szolgálatában Budapest, Magyarország : Professzorok az Európai Magyarországért Egyesület. pp. 150-159.
4. MESTERHÁZY, H. (2021): Változások a környezetismeret tantárgyban. In: Molnár, D. & Molnár, D. (szerk.) XXIV. *Tavaszi Szél Konferencia 2021 Tanulmánykötet* II. Budapest, Magyarország: Doktoranduszok Országos Szövetsége (DOSZ) pp. 442-458.

5. MESTERHÁZY, H. & HOSCHEK, M. (2022): Students' knowledge of hunting and game management and the main game species in Hungary. *Journal of applied technical and educational sciences*. **12** (2): pp.1-13.
6. MESTERHÁZY, H. & HOSCHEK, M. (2021): Vadászattal, vadgazdálkodással kapcsolatos ismeretek összehasonlító vizsgálata pedagógushallgatók körében. In: Lett, B.; Gál, J.; Horváth, S.; Molnár, K.; Schiberna, E. & Stark, M. (szerk.) *Tanulmánykötet Mészáros Károly tiszteletére 2021* Sopron, Magyarország : Soproni Egyetem Kiadó, pp. 127-133.
7. MESTERHÁZY, H. (2021): Környezetismeret tankönyvek vadfajokkal kapcsolatos tartalmainak összehasonlítása Magyarországon és Ausztriában. *Képzés és Gyakorlat*: **19** (1-2): pp. 100-106.
8. MESTERHÁZY, H. (2021): Változások a környezetismeret tantárgyban. In: Molnár, Da.; Molnár, D. (szerk.) XXIV. *Tavaszi Szél Konferencia 2021: Absztrakt kötet*. Budapest, Magyarország : Doktoranduszok Országos Szövetsége (DOSZ) 572. p.
9. MESTERHÁZY, H. (2021): Általános iskolás környezetismeret tankönyvek vizsgálata főbb vadfajok tárgykörében. *Danubius Noster: az Eötvös József Főiskola Tudományos Folyóirata* **9** (1-2) pp. 149-162.

10. MESTERHÁZY, H. (2020): Vadászati és vadgazdálkodási szemléletformálás családok és gyermekek körében. In: Lett, B.; Gál, J.; Horváth, S.; Molnár, K.; Schiberna, E. & Stark, M. (szerk.) *Tanulmánykötet Mészáros Károly tiszteletére 2020.* Sopron, Magyarország: Soproni Egyetem Kiadó. pp. 195-199.
11. MESTERHÁZY, H. (2019): Vadászat- vadgazdálkodási ismeretek pedagógusok/pedagógusjelöltek körében. In: Kissné, Zsámboki R.; Koloszar, I. & Horváth, Cs. (szerk.) Nemzetközi neveléstudományi irányvonalak és dimenziók határok nélkül : *XII. Képzés és Gyakorlat Nemzetközi Neveléstudományi Konferencia : absztraktkötet.* Sopron, Magyarország: Soproni Egyetem Kiadó. pp. 69-70.
12. MESTERHÁZY, H. (2019): Vadászati és vadgazdálkodási ismeretek pedagógushallgatók körében. *Képzés és gyakorlat.*17(3-4): pp. 183-194.
13. MESTERHÁZY, H. (2019): Oktatási tananyag összeállítása pedagógushallgatók részére. In: Lett, B.; Gál, J.; Horváth, S.; Molnár, K.; Schiberna, E. & Stark, M. (szerk.) *Tanulmánykötet Mészáros Károly Tiszteletére 2019* Sopron, Magyarország: Soproni Egyetem Kiadó. pp. 127-130.