

European Journal of Education Studies

ISSN: 2501 - 1111 ISSN-L: 2501 - 1111

Available on-line at: www.oapub.org/edu

DOI: 10.46827/ejes.v8i4.3700

Volume 8 | Issue 4 | 2021

INVESTIGATION OF SOCIAL STUDIES TEACHERS' VIEWS ON TIME MANAGEMENT IN THE DISTANCE EDUCATION PROCESS

Mehmet Oran¹ⁱ, Mehmet Akif Karali²

¹Usak University,
Department of Social Studies Education,
Turkey

orcid.org/0000-0001-5995-8430

²PhD, Marmara University,
Department of Social Studies Education,
Turkey
orcid.org/0000-0002-9816-2520

Abstract:

This study aimed to examine social studies teachers' views on time management in the distance education process. In the study, in which phenomenology pattern, one of the qualitative research methods, was used, a semi-structured interview form was applied to 30 social studies teachers. Purposeful sampling method was used while creating the study group. The data obtained in the study were analyzed by content analysis. Within the scope of the study, the answers given by social studies teachers to the research questions were collected in 15 codes. At the end of the study, social studies teachers stated that a good time management saves time and increases the efficiency of the lesson regarding the importance of time management. In addition, social studies teachers focused mostly on technological problems regarding the problems experienced in time management. They stated that this problem was followed by lack of time and problems caused by the students. In the light of the findings, suggestions were made on raising the awareness of students, teachers and parents about time management and solving technological problems.

Keywords: social studies, time management, distance education

1. Introduction

Although the definition of the concept of time, which is one of the most difficult concepts to define and describe, has been voiced by many researchers, a common definition has not been made yet. The concept of time is the passing of the uncontrollable and

ⁱ Correspondence: email <u>mehmtoran@gmail.com</u>, <u>memet karali@hotmail.com</u>

uninterrupted process from the past to the present (Tutar, 2015: 17). Dalkıran (2014: 5) defined the concept of time as a non-renewable and non-recyclable resource that has both social, economic and historical values.

Perhaps the humans are the creatures that understand the importance of time least and wasting time. The reason for this is that people are not sufficiently aware that they cannot control time (Hacıbalayeva, 2017: 4). In order to evaluate time in the most efficient way, the value of time must be known, and time must be managed well. People cannot realize how time passes due to their daily fuss. However, realizing time is a prerequisite to knowing the value of time. Because if the value of time is not understood, time flows like water (Yılmaz and Aslan, 2002: 26).

Time is an extremely unique and precious resource that is given to each individual but used differently by each individual. What separates time from other sources and makes it different is that it cannot be compensated. Because time is a resource that cannot be stored, accumulated and catering. Within certain limits, another resource can be used as an alternative to a resource, but there is no resource that can be used instead of time (Keresteci, 2011: 4).

The most important thing in time management is the decision stage. What should be done and what not, what should be done first and what should be postponed is very important in time management. Doing the work at the right time will undoubtedly increase the efficiency of the work. Not determining priorities, not being able to progress within the plan, having difficulty in making decisions, etc. such elements are time traps and these traps should definitely be eliminated. Because if these time traps cannot be eliminated, it will be very difficult to achieve success in the work done (Kibar, 2014: 12).

Time management is extremely important in the teaching profession as in all professions. Time management is an important issue for teachers who aim to raise individuals who serve the homeland and the nation and prioritize reason and science. Thanks to time planning, teachers can increase the efficiency of their lessons to maximum levels. Time management is also important for the social studies course, which aims at the development of students in many ways.

This study aimed to examine social studies teachers' views on time management in the distance education process. In this context, the answers to the following questions were sought which directed to social studies teachers:

- What comes to your mind first when you talk about time management?
- Could you give information about the importance of time management?
- Could you tell us about the problems you have in managing time during the distance education process?
- Could you compare how you manage time in face-to-face and distance education?
- What are your suggestions for efficient use of time in distance education?

2. Method

2.1. Design

In the study that phenomenology method is used, which is a qualitative research method, it is possible to conduct scientific research on phenomena and subjects that are aware but cannot have detailed information (Yıldırım & Simsek, 2008).

2.2. Study Group

The study group of the research consists of 30 social studies teachers (male = 17, female = 13). The teachers included in the study were abbreviated and coded as P. While forming the study group of the study, easily accessible or convenient sampling method, which is one of the purposeful sampling methods, was preferred. The purpose of this selection is to save effort, time and money (Baltacı, 2018). In the preferred purposeful sampling method, information-rich situations are preferred for in-depth research (Buyukozturk, Kılıc Cakmak, Akgun, Karadeniz, & Demirel, 2008).

2.3. Data Collection and Data Analysis

First of all, a literature review on time management was carried out. Literature review is a process of gathering information on a subject based on evidence from different sources and put forward to complete the deficiencies in the literature (Timmins and McCabe, 2005: 41-42). After the preliminary information on the subject was obtained, the semistructured interview form was prepared to be applied to the participants by taking the opinions of 3 academicians who gained their expertise in the field of social studies education. The reason for obtaining expert opinion is to increase the validity and reliability of the research. The data obtained through the interview form were transferred to a Microsoft Word file on the computer. Data transferred to Microsoft Word file was subjected to content analysis. In content analysis, it is possible to clarify the concepts by examining the available data in depth (Tedmem, Palancı, Kandemir, & Dundar, 2014: 433). During the coding phase of the data obtained, the reliability of the research was calculated as 93% according to the reliability formula of Miles and Huberman (1994) by exchanging opinions with an academician. At the end of the study, the answers given to the interview questions were collected in 15 codes. Some of these codes are: effective and useful use of time, planning / organizing of time, efficiency / success, savings, awareness, goal, technological problems, time shortage problem, problems caused by students, solving technical problems and choosing appropriate course activities.

3. Findings

3.1. Findings Regarding Time Management

When looking at the views of social studies teachers on time management; Two different views emerged as effective and useful use of time (f = 21) and planning / organizing time (f = 9). The distribution of opinions is shown in Table 1.

Table 1: Views of Social Studies Teachers on Time Management			
Cods Participants		f	%
Using time effectively and	1, 3, 4, 5, 6, 7, 9, 12, 13, 14, 15, 16, 19, 20, 21, 22, 25, 27,	21	70
beneficially	28, 29, 30		
Planning /organizing time	2, 8, 10, 11, 17, 18, 23, 24, 26	9	30

"What comes to mind first when you talk about time management?" to the question, social studies teachers who participated in the research; They gave two different responses: effective and useful use of time and planning / organizing time. Some direct quotes about the view of using time effectively and beneficially are as follows:

"I can say using time effectively and with maximum benefit." (P.1)

"Time management is the most efficient use of a certain time period we reserve for a job." (P.5)

"When it comes to time management, the first thing that comes to my mind is to improve the efficiency and quality of the lesson by arranging my time in the best way." (P.6)

"Effective use of the time period you are in." (P.21)

"When it comes to time management, the first thing that comes to my mind is to use time correctly and efficiently." (P.27)

"To use the given time period efficiently, to provide student-oriented interactive education." (P.30)

Some direct quotes about social studies teachers' view of planning / organizing time are as follows:

"Time management is the conscious control and regulation of the time spent to increase the efficiency of a job." (P.11)

"It is the ability to organize time for the purposes determined or aimed to be achieved." (P.18)

"I can say it is organizing time. It is to organize the time given for work according to the needs in the best way." (P.26)

According to the social studies teachers who participated in the research, we can say that time management means doing quality and much work in less time. Social studies teachers put a lot of emphasis on time management, using the time allocated for a job to be done with maximum efficiency and increasing the quality of the work. In

addition, it can be said that the social studies teachers who participated in the research were knowledgeable about time management and were sensitive about time planning.

3.2. Findings Regarding the Importance of Time Management

Considering the opinions of social studies teachers about the importance of time management; Four different views emerged: efficiency / success (f = 19), saving (f = 5), awareness (f = 4) and target (f = 2). The distribution of opinions is shown in Table 2.

Table 2: Social Studies Teachers' Views on the Importance of Time Management

Cods	Participants	f	%
Yield/Success	1, 2, 6, 7, 8, 10, 11, 12, 14, 15, 16, 18, 19, 22, 25, 26, 27, 29, 30	19	63
Saving	4, 9, 13, 20, 23	5	17
Awareness	3, 17, 21, 28	4	13
Target	5, 24	2	7

"Can you give information about the importance of time management?" to the qestions, social studies teachers who participated in the research; They expressed four different views: efficiency / success, saving, awareness and target. Some direct quotations regarding the efficiency / success view of social studies teachers are as follows:

"The importance of this subject is directly proportional to the efficiency you get from your job. The better you can manage time, the higher your efficiency, satisfaction and success rate." (P.1)

"Time management is the most important concept related to productivity. If we do not manage time well in our lessons, we will reduce productivity." (P.2)

"Time management is generally to act according to the plan and schedule made beforehand in order to spend the day in the most efficient way." (P.6)

"Good time management ensures that there is no waste of time in the lessons, the lessons are taught more effectively, and the students reach more information." (P.7)

"Utilizing our flowing and limited time in the most efficient way depends on managing our time well." (P.15)

Some direct quotations regarding the savings view of social studies teachers are as follows:

"It is the effective and aware planning of the time that a person has. It is the ability of an individual to manage their time by using their past experiences." (P.3)

"Each individual's time is valuable for himself. We cannot bring back some times even if we want. Wasted time is considered a wasted life. Some things have a critical period, when we go through this period the result of our work may not be as planned. That's why we must be aware of the importance of time." (P.17)

Some direct quotations regarding the awareness view of social studies teachers are as follows:

"It ensures that the projects that are planned to be made are done in the shortest time." (P.9)

"Managing time correctly will save time." (P.20)

The direct quote regarding the target view of social studies teachers is as follows:

"Time management is extremely important in terms of reaching the planned targets in the most effective way in the right time. With time management, it is possible to pay sufficient attention to the process steps of each target planned." (P.5)

The subject that social studies teachers emphasized the most about the importance of time management has been the issue of efficiency. The teachers generally stated that the efficiency of the lesson decreased as a result of not being well-adjusted time management. Another issue emphasized by social studies teachers in this regard is the idea that the way to the goal is through the good management of time.

3.3. Findings Regarding the Difficulties Experienced in Time Management

Considering the opinions of social studies teachers about the problems experienced in time management; Three different views emerged as technological problems (f = 15), time shortage problem (f = 9) and problems stemming from students (f = 6). The distribution of opinions is shown in Table 3:

Table 3: Opinions of Social Studies Teachers Regarding the Problems Experienced in Time Management

	1 0		
Cods	Participants	f	%
Technological problems	1, 2, 3, 4, 7, 8, 10, 11, 12, 21, 23, 24, 25, 28, 30	15	50
Time shortage problem	15, 16, 17, 18, 19, 20, 22, 26, 27	9	30
Problems caused by the student	5, 6, 9, 13, 14, 29	6	20

"Could you tell us about the problems you have in time management during the distance education process?" to the question social studies teachers they stated three different opinions: technological problems, time shortage problem and problems caused by students. Some direct quotations regarding the view of social studies teachers regarding technological problems are as follows:

"First of all, the subject I need to focus on is technological problems. For this reason, I think the lessons could not be taught fully and effectively." (P.1)

"In my opinion, the most important problem in the distance education process is that the technology-based internet and live lesson connection cannot be provided continuously." (P.4)

"We are experiencing problems due to technological troubles. Sometimes we have problems on the internet, and sometimes we experience delays in students' entry to classes. These factors also cause problems for us in terms of time management." (P.7)

"During the course, there are various technological problems such as the preparation and presentation of the material, internet connection." (P.23)

Some direct quotations regarding the view of social studies teachers on the insufficient of time are as follows:

"30 minutes is a very short time for teaching the gains of our lesson. This period ends with waiting for students and ourselves to be able to connect to the internet. That's why we can't spare enough time for students." (P.16)

"Our biggest problem in the distance education process has been the reduction in lesson hours. Therefore, we could not complete the subjects in the lessons." (P.19)

"It is difficult to transfer subjects to students in a short time like 30 minutes with distance education. This causes difficulties in time management." (P.26)

Some direct quotations regarding the view of social studies teachers' problems arising from students are as follows:

"The biggest problem I have experienced in managing time in the distance education process is that children have trouble making decisions on their own, cannot plan and attend their lesson on time." (P.5)

"It is very difficult to control students on an unfamiliar platform. It is very difficult to check whether the students have learned the subject well enough." (P.13)

Most of the social studies teachers stated that they could not show the success they had in good management of time in face-to-face education in distance education. They highlighted the most important reason for the problems experienced in time management in distance education as technological reasons. In addition to the difficulties experienced

due to lack of technology, the late attendance of the students to the lesson, the insufficiency of the lesson time were other problems that teachers faced.

3.4. Findings Regarding the Comparison of Time Management in Face-to-Face Education and Distance Education

Considering the opinions of social studies teachers about how they manage time in face-to-face education and distance education; two different views emerged as more useful in face-to-face education (f = 25) and more useful in distance education (f = 5). The distribution of opinions is shown in Table 4:

Table 4: Views of Social Studies Teachers on Comparison of Time Management in Face-to-Face Education and Distance Education

Cods	Participants	f	%
More Beneficial in	1, 2, 4, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 22, 23, 25, 26, 27, 28,	25	83
Face-to-Face	29, 30		
Education			
More Benefical in	3, 5, 14, 21, 24	5	17
Distance Education			

"Could you compare how you manage time in face-to-face education and distance education?" to the question, a great majority of the social studies teachers who participated in the study stated that managing time in face-to-face education is more beneficial. Some of the social studies teachers who participated in the study stated that managing time in distance education is healthier. Some direct quotations regarding the view of social studies teachers that managing time is more beneficial in face-to-face education are as follows:

"I think that the lesson gains in face-to-face education are gained better in the planned period. However, there may be problems regarding the planned time in distance education lessons." (P.4)

"In face-to-face education, the student notices eye contact and pays more attention. Not being able to show the classroom materials in online education reduces the child's interest." (P.10)

"Time management in face-to-face training is more controlled and easy. In distance education, extra time is required to communicate and solve problems." (P.11)

"We can use time better in face-to-face training. In addition, more activities are carried out in face-to-face education compared to distance education and more permanent information is provided." (P.12)

"I can say that I am more successful in managing time in face-to-face education. I think it is more advantageous to have things to be done in a systematic and planned way in face-to-face education. It is also important to be together with students, to be able to see the events at that moment and to answer questions on time." (P.28)

"I think active participation in face-to-face education is more advantageous than distance education." (P.29)

Some direct quotations regarding the view of social studies teachers that managing time in distance education is more beneficial are as follows:

"Although the digital environment provided by distance education reduced the interaction with students, it made some of the subjects we explained face to face better understandable. In this respect, it was possible to transfer the subjects we told with classical methods to the students faster." (P.21)

"During the face-to-face training, I was spending serious time on going to school, returning, breakfast and meals. This problem was solved with distance education. In addition, waiting for the class to be ready and dealing with the students personally during the lesson was a waste of time. This situation has disappeared in distance education." (P.24)

Social studies teachers emphasized the following issues regarding the fact that face-to-face education is more beneficial than distance education: teachers have more control over the classroom, students are more active in the course, learning is more permanent, communication with students is better, quicker feedback to students' questions, Conducting more in-class activities, easier control of in-class students, no connection problems, etc.

Social studies teachers emphasized the following issues regarding the fact that distance education is more beneficial than face-to-face education: more comfortable use of verbal expression technique in lessons, more efficient use of time, saving time, etc.

3.5. Findings Regarding Using Time Efficiently in Distance Education

Considering the suggestions of social studies teachers for efficient use of time in distance education; four different opinions emerged: informing students, parents and teachers (f = 16), solving technical problems (f = 10), choosing appropriate lesson activities (f = 2) and solving the time shortage problem (f = 2). The distribution of opinions is shown in Table 5:

Table 5: Social Studies Teachers' Views Regarding Their Efficient Use of Time				
Cods	Participants	f	%	
Informing students, parents and teachers	1, 2, 5, 8, 10, 13, 15, 18, 19, 21, 23, 24, 25, 28, 29,	16	53	
	30			
Technical troubleshooting	3, 6, 7, 9, 11, 12, 14, 17, 20, 22	10	33	
Choosing the appropriate lesson activities	4, 16	2	7	
Solving the time shortage problem	26, 27	2	7	

"What are your suggestions for efficient use of time in distance education?" to the question, Social studies teachers who participated in the research; students, parents and teachers inform, technical problems, choosing appropriate lesson activities and solving the problem of time shortage. Some direct quotations regarding the view of social studies teachers to inform students, parents and teachers are as follows:

"I think we are now in the last days of this intensive distance education. However, public service ads could be prepared that explained the roles of parents in distance education and showed how they should adapt students to distance education." (P.1)

"Training educators to use information technologies more actively." (P.8)

"We can ensure that the students participate in the lesson on time by setting various rules together with the students. We may not allow students to turn on their microphones and scratch the screen without permission." (P.19)

"In order to use time well in distance education, it is necessary to instill in students and parents that students should follow their lessons first." (P.25)

Some direct quotations regarding the view of social studies teachers to overcome technical problems are as follows:

"We can start by eliminating technological deficiencies. Since the distance education process started, there are students who have problems with the Internet, tablets and computers. The late attendance of the students to the class is a negative factor in effective use of time." (P.7)

"First of all, the technological problems used in distance education should be eliminated and technology should be developed." (P.14)

"I believe that the high quality of the internet used in distance education will increase the success of the students. When the internet is bad, the student cannot enter the lesson. Therefore, the student is getting colder from the lesson." (P.22)

The direct quotation regarding the view of social studies teachers to choose appropriate lesson activities is as follows:

"Appropriate course activities can be chosen to use time efficiently in distance education." (P.4)

The direct quote regarding the view of social studies teachers to solve the time problem is as follows:

"Lesson duration can be extended. An additional time may be given for students to attend classes." (P.26)

Social studies teachers primarily focused on raising the awareness of students, teachers and parents in order to use time efficiently in distance education. They emphasized that if this awareness is realized, more healthy and permanent learning will take place. Social studies teachers stated that technical problems should be resolved later. Other suggestions were selecting appropriate course activities for the social studies course in distance education and eliminating the shortage of course time.

4. Discussion, Conclusion and Recommendations

When we look at the studies on time management, it is seen that they are generally presented in various fields such as business, sports, engineering, law, health, tourism, sociology, public administration, education and training. In addition, when looking at the studies on time management, it is seen that there are studies in which the quantitative research method is generally used. One of the aspects that makes our study different from other studies is that it is a qualitative study. Gozel and Halat (2010), in their article titled "Primary School Teachers and Time Management", revealed the conclusion that teachers' time management is at a high level. Farsak (2020), in his master's thesis titled "The relationship between the time management skills of preschool teachers working in private schools and their job satisfaction", concluded that teachers have a high level of time management skills and a high level of job satisfaction. Arslan (2019), in his master's thesis titled "Investigation of the relationship between time management and academic achievement in university students: The example of Van YuzuncuYıl University", it has been revealed that students with high grade point averages have high priorities, regularity in business practices, planning and filing skills. Turkan (2018), on the other hand, in her master's thesis titled "Examination of teachers 'time management skills: The example of Kucukcekmece district of Istanbul province" found the teachers' time management levels at medium level.

Since our research is a qualitative research, teachers' opinions about time management rather than time management levels have been revealed. Within this information; social studies teachers generally focused on the planning of time and the

effective use of time in time management. Regarding the importance of time management, social studies teachers stated that a good time management increases the efficiency of the course.

Regarding the problems experienced in time management, social studies teachers mostly focused on technological problems. They stated that this problem was followed by lack of time and problems caused by the students. In addition, most of the social studies teachers emphasized that face-to-face education is more beneficial than distance education. As a result, it can be said that the social studies teachers who participated in the study were knowledgeable about time management and were sensitive about time planning.

In the light of the findings, the following recommendations have been made:

- Training seminars can be organized to inform and raise awareness of teachers about time management in distance education.
- Training seminars can be organized to inform and raise awareness of students about time management in distance education.
- Training seminars can be organized to inform and raise awareness of parents about time management in distance education.
- Technological problems in time management in distance education can be overcome. Internet infrastructures can be improved if deemed necessary. Internet, tablet and computer assistance can be provided to families with insufficient financial means.
- In order to eliminate the time shortage experienced in lessons regarding time management in distance education, the course schedules can be reviewed and necessary arrangements and updates can be made.
- In order to increase the efficiency of the lessons about time management in distance education, the efficiency of the lessons can be increased by choosing the appropriate activities.

Conflict of Interest Statement

The authors declare no conflicts of interests.

About the Authors

Mehmet Oran completed his undergraduate, graduate and doctorate education at Usak University. He currently holds the title of doctor in the field of social studies education. Research interests: local history, oral history, social studies program, etc.

Mehmet Akif Karalı completed his undergraduate and graduate studies at Usak University. He is currently continuing his doctorate education at Marmara University. Research interests: social studies education program, examination of professional awareness, etc.

References

- Arslan, S. (2019). *Investigation of the relationship between time management and academic success in university students: Sample of Van Yuzuncu Yıl University School of Physical Education and Sports*, Master Thesis, Trakya University Institute of Social Sciences Department of Recreation Management, Edirne.
- Baltacı, A. (2018). A conceptual review of sampling methods and sample size problems in qualitative research. *Journal of Bitlis Eren University Institute of Social Sciences*, 7(1). 231-274.
- Buyukozturk, S., Kılıc Cakmak, E., Akgun, O. E., Karadeniz, S. & Demirel, F. (2008). *Scientific research methods*. Ankara: Pegem Publications.
- Dalkıran, E. (2014). Effects of time management on nurses job efficiency (Izmir Dr. Behcet Uz Pediatric Desase and Surgery Training and Research Hospital Sample), Master Thesis, Beykent University Institute of Social Sciences Business Management Department, Istanbul.
- Farsak, K. (2020). The relationship between time management skills and job satisfaction of preschool teachers working in private schools, Master Thesis, Baskent University Institute of Educational Sciences Department of Educational Sciences, Istanbul.
- Gozel, E. & Halat, E. (2010). Elementary-School Teachers and Time Management, *Pamukkale University Journal of Social Sciences Institute*, 6, 73-89.
- Hacıbalayeva, A. (2017). *Investigation of time management skills of postgraduate students:* comparison of Ondokuz Mayıs University ans Azerbaijan State Economic University, Master Thesis, Ondokuz Mayıs University, Institute of Social Sciences, Department of Business Administration, Samsun.
- Keresteci, G. T. (2011). *Time management: Literature search*, Master Thesis, Trakya University Institute of Social Sciences Department of Business Administration, Edirne.
- Kibar Yucel, B. (2014). *The relation between academic success and time management skills of Karabuk University students,* Master Thesis, Karabuk University Institute of Social Sciences, Department of Public Administration, Karabuk.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publication.
- Tedmem, Z. S., Palancı, M., Kandemir M. & Dundar, H. (2014). Trends of research published in the education and science journal: content analysis, *Education and Science*, 173(39), 430-453.
- Timmins, F. & McCabe, C. (2005). How to conduct an effective literature search, *Art & Science Study Skills*, 11(20), 41-47.
- Tutar, H. (2015). Time Management, Nobel Publishing House. Ankara.
- Turkish Language Association (2021). Access date: 31.01.2021, http://www.tdk.gov.tr/.
- Turkan, U. (2018). *Investigation of teachers time management skills: Sample of Istanbul Kucukcekmece*, Master Thesis, Istanbul Sabahattin Zaim University, Institute of Social Sciences, Department of Educational Sciences, Istanbul.

Yıldırım, A. & Simsek H. (2008). *Qualitative research methods in the social sciences*. Ankara: Seckin Publishing.

Yılmaz, A. & Aslan, S. (2002). Organizational Time Management, C.U. Journal of Economic and Administrative Sciences, 3(1), 25-46.

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Education Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a Creative Commons Attribution 4.0 International License (CC BY 4.0).