


Digitalisation Readiness of University Students in Erasmus+: A Case Study of Turkey, Italy and Spain

Ömer KAVRAR* 
Seda ÇANKAYA KURNAZ** 

ABSTRACT

Digitalisation, one of the priority areas of the European Commission, has started to show its effects on the digital transformation of the Erasmus+ programme in Higher Education Institutions. In a programme involving approximately 940 thousand students according to the 2019 figures, the process of handling all mobility-related works in digital platforms is expected to contribute positively to the current workload of higher education institutions. However, it obliges all stakeholders involved in the process to fulfill the requirements for this transformation process. The readiness of the students, who are at the center of this process, is one of the important issues that should be investigated. In this study, it is aimed to comparatively reveal the degree of readiness of the students for the digital transformation of the Erasmus+ programme. In this direction, a questionnaire was applied to a total of 187 students from Spain, Italy, and Turkey, between February and March 2021. In conclusion, the digital skills of the students are one of the most important issues affecting the digital transformation process of the Erasmus+ programme. The level of digital readiness in all three countries is similar since the HEIs are highly interacted by the regulations of Erasmus+ programme.

Keywords: Digitalisation, Erasmus+ Programme, Exchange Students, Higher Education Institution

Erasmus+ Programında Üniversite Öğrencilerinin Dijital Hazırlık Durumları: Türkiye, İtalya ve İspanya Örneği

ÖZ

Avrupa Komisyonunu öncelikli alanlarından biri olan dijitalleşme, Yükseköğretim Kurumları'nda Erasmus+ programının dijital dönüşümü üzerinde etkilerini göstermeye başlamıştır. 2019 yılı rakamları ile yaklaşık 940 bin öğrencinin katıldığı bir programda hareketlilik ile ilgili tüm işlerin dijital ortamda yürütülmesi sürecinin, yükseköğretim kurumlarının mevcut iş yüküne olumlu katkı sağlaması beklenirken, diğer taraftan da süreci ilgilendiren tüm paydaşların bu dönüşüm sürecine ilişkin gereklilikleri yerine getirmesini zorunlu kılmaktadır. 2021 yılında kağıtsız Erasmus süreçlerinin zorunlu olarak kullanılacağı dikkate alındığında bu sürecin merkezinde olan öğrencilerin ne kadar hazır oldukları üzerinde durulması ve tartışılması gereken önemli meselelerden biridir. Bu kapsamda çalışmada öğrencilerin Erasmus+ programının dijital dönüşümüne ilişkin motivasyonlarını ortaya koyma amacı doğrultusunda 2021 yılının şubat ve mart ayları arasında İspanya, İtalya ve Türkiye'den öğrencilerin bulunduğu toplamda 187 kişiye anket çalışması uygulanmıştır. Araştırma sonucunda elde edilen veriler Çalışmanın sonucunda öğrencilerin dijital becerilerinin Erasmus programının dijital dönüşüm sürecini etkileyen en önemli konulardan biri olduğu vurgulanmıştır. Buna paralel olarak uygulamalı dijital platformların tanıtılan eğitimlerin öğrencilerin hızla değişen bu dijital çağa uyum sağlama motivasyonunu önemli ölçüde artırabileceği söylenebilir. Çalışmada bir diğer önemli sonuç, yükseköğretim kurumlarının Erasmus+ Programını düzenlemeleri ile önemli ölçüde etkileşime girmesi nedeniyle her üç ülkedeki dijital hazırlık seviyesinin hemen hemen aynı olması ve süreçle ilişkin uygulamalı eğitimlerin öğrenci motivasyonunu arttırabileceğidir.

Anahtar Kelimeler: Dijitalleşme, Erasmus+ Programı, Değişim Öğrencileri, Yükseköğretim Kurumları

1. Giriş

Time is changing, and digitalisation is becoming one of the main tools of this change and transformation in many fields, especially in education. The Higher Education Institutions (HEIs) are gaining advantages in competing with the other HEIs by developing digital strategies in line with the aim of adapting to changing and transforming conditions. The European Commission, with its call for the digitalisation of the Erasmus+ exchange programme, paved the way for all stakeholders participating in the mobility process to contribute to the implementation of the programme in a more effective, efficient, practical and effective way by using digital technologies. In this context, the adaptation of all stakeholders

* Öğr. Gör. Dr., Selçuk Üniversitesi, okavrar@selcuk.edu.tr

** Öğr. Gör. Dr., Selçuk Üniversitesi, sedacankaya@selcuk.edu.tr

Makalenin Gönderim Tarihi: 30.11.2021; Makalenin Kabul Tarihi: 24.12.2021

in higher education institutions to the digital transformation process is one of the most important stages for the success of the digital transformation.

In the study, it is aimed to comparatively reveal the readiness of the students, who are the most important stakeholders of the Erasmus mobility process, for the digital transformation of the Erasmus+ programme. In this context, 187 students at higher education institutions in Italy, Spain and Turkey were included in the study and the results were analyzed using the SPSS programme. The results obtained from the research were analyzed under 3 dimensions: policy, legal and privacy issues, digital skills and motivation and coordination.

2. Statement of the Problem

The idea of transformation is not always accepted by every stakeholder in the institutions, and there may be resistance. In this context, the smooth realization of the digital transformation of the Erasmus+ programme, which the European Commission has stated will be mandatory by the end of 2021, depends on various factors. These include informing all stakeholders in the process, providing the necessary training, and making the technical infrastructure of the institution suitable.

Making students, who are the most important stakeholders of the process, ready for the digital transformation of the Erasmus+ programme is one of the most important problem areas. Mapping students' readiness for digital transformation will provide the current data on understanding the process. This will help stakeholders who want to make progress at the point of digitalisation in providing a roadmap.

3. Literature Review

In the last decade, digitalisation has been one of the wide-ranging fields of study that has been the subject of different literature. Among the studies that center on the behavior of university youth in their research, Rodriguez-Moreno et al. (2021), analyzing the use of digital tools and social networks by university students during the COVID-19 pandemic has aimed. The results have showed the importance of two of the common variables taken into account when considering the use of social networks and digital tools by university students in explaining the variability of the different dimensions of the scale examined. In this sense, both the degree of use of virtual tools to enhance teamwork and the degree of use of online video channels when communicating best explained the level of digital skills among the university students studied. Another study in this category by Monteiro & Leite (2021), was developed to determine the use and effects of digital literacy on the development of personal and social skills as well as university students' digital competencies. The results point to an almost pervasive mastery of search and data organization skills, and less able to create and develop new digital solutions. Most of the students reported that before the crisis, digital technologies were used mainly for corporate communication and among peers, but not for networking and developing lifelong learning skills. The lack of involvement of many teachers in current pedagogical support is an obstacle to adequate digital transformation in higher education, both in times of crisis and in the future Kharkivska et al. (2021), examines the impact of digitalisation of education on the transformation of the student-centered approach. Among the issues identified, most students do not trust the automated information control system; have concerns about the quality of digital teaching materials and are willing to work on assignments in digital format. From this, it was concluded that with the digitalisation of the education process, the student-centered approach is also transforming. In their study, which focuses on the development of digital literacy Tejedor et al. (2020), they comparatively presented the situation in higher education institutions of Spain, Italy, and Ecuador. The results point to the need to develop key aspects such as the digital skills of educators, learning resources, communication between universities and students, and teaching methodologies that must be appropriate to the current context.

4. Research Methodology

The research is a comparative-descriptive study analyzing the preparedness status of the students for the digital transformation of the Erasmus+ Programme. In this direction, the survey method, one of the quantitative research techniques, was applied to students studying in higher education institutions in Italy,

Spain, and Turkey. The survey method was preferred within the scope of the study because it is a technique that allows reaching large audiences without time and place restrictions.

The maximum variation sampling technique was used to determine the research method. The main reason for using the maximum variation sampling technique is to reach students from different profiles from three different countries and to present the results in a comparative way. Within the scope of the study, the questionnaire prepared on the Google form was sent to the students via e-mail between March and May 2021. The obtained data was transferred to the SPSS programme and analyzed. Before starting the study, an Ethics Committee Decision was taken to allow the study to be conducted, and therefore this study complied with research and publication ethics.

4.1. Sample and Data Collection

The digitalisation status of higher education students in Italy, Spain and Turkey has been comparatively analyzed by considering the three dimensions that most affect the transformation process. Under these categories, 5 statements were determined in the table below, in which students evaluate their countries, institutions and their own digitalisation status. The subjects in the sample were randomly selected from the universe.

Table 1. Questionnaire

D1: POLICY, PRIVACY & LEGAL ISSUES	
D1.1.	The existing legal regulations in my country are compatible with digital transformation in HEIs.
D1.2.	I trust in my institution for protecting my personal information.
D1.3.	I know how to utilize from the laws and regulations to protect myself in digital environment
D1.4.	I find it safe to share my personal information digitally during the Erasmus+ mobility process.
D1.5.	My university is ready in general to realize the digitalisation of the Erasmus+ mobility management.
D2: DIGITAL SKILLS	
D2.1.	I know what Erasmus App is and how it works.
D2.2.	I have access to training materials, modules and web sites that will give practical information about the best use of the digital tools.
D2.3.	In the EWP digital transformation process, Erasmus+office staff have provided sufficient training to the students
D2.4.	I have an overall understanding of the components of a computer and how it is connected to other devices
D2.5.	I think EWP documentations are descriptive / useful enough for integration.
D3: COORDINATION	
D3.1.	Senior management of my university has been helpful in the use of the new technologies
D3.2.	My university has made significant progress in Erasmus+ digital transformation process
D3.3.	My university provides support to improve digital skills of the students
D3.4.	The technical infrastructure of my university is sufficient to improve digital technologies
D3.5.	I think the Pandemic by COVID-19 could affect to increase the digitalisation skills positively

4.2. Data Processing

The level of participation of the students in the statements indicating how ready they are in terms of digitalisation in different topics was measured. Statements for which opinions were sought using a five-point Likert scale were scored from 1 to 5, respectively, starting from Strongly Disagree to Strongly Agree. Since the number of participants from each country is not equal, the averages of the responses of the statements were included in the analysis. The average numbers in the table below have made it possible to compare the digital readiness of the students at the level of each country under the relevant headings

Table 2. Comparison of Students' Digital Status by Country

	POLICY, PRIVACY & LEGAL	DIGITAL SKILLS	COORDINATION	TOTAL	RANK
SPAIN	3,49	3,43	3,65	10,57	1
TURKEY	3,50	3,42	3,59	10,50	2
ITALY	3,33	3,15	3,41	9,89	3

4.3. Limitations

The study is limited to data from only three countries in Europe. The fact that the same number of students could not be reached on a country basis is another limitation of the study. Due to the pandemic,

the difficulties experienced in reaching students studying in three different countries caused the study not to be completed at the specified time. In addition, since the research was conducted in a certain time period (March - May 2021) and it is thought that perceptions may change over time, the research in question is limited to the time period in which it was conducted.

5. Findings and Results

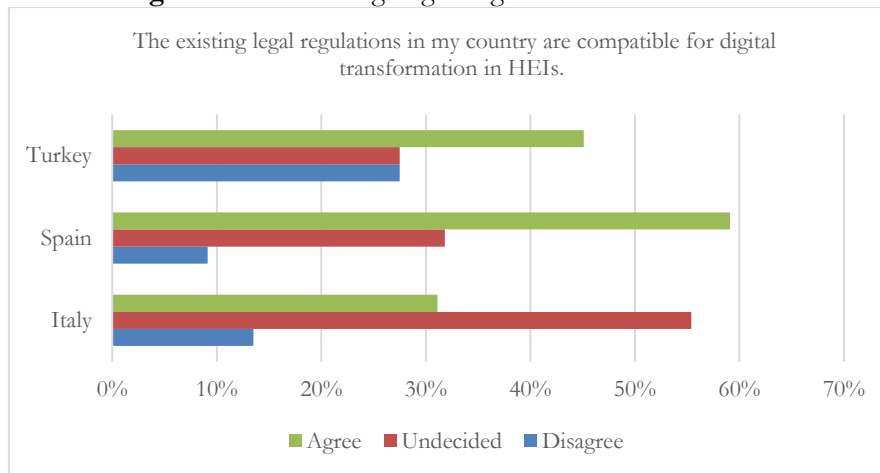
The results obtained from the research are analyzed below by dividing them into Policy, Legal and Privacy Issues, Digital Skills, Coordination and Motivation dimensions.

5.1. Policy, Legal and Privacy Issues

Policy and legal issues emerge as an important issue to be considered in every field where the digitalisation transformation begins. In particular, the inadequacy of the legal regulations of some countries or the inability to adapt to the transformation process hinders the rapidly spreading digitalisation process (Kotter, 1996). For this reason, first of all the legal infrastructure required for the digital transformation process should be adapted to this change.

In this context, students were required to give points to statements in order to understand the situation of policy and legal issues in their countries during the digital transformation process of the Erasmus+ Programme. Under this heading, students were first asked their opinions on the expression “D.1.1. *The existing legal regulations in my country are compatible for digital transformation in HEIs*”. As can be seen from the Figure 1, 31.1% of students in Italy, 59.1% of students in Spain and 45.1% of students in Turkey stated that the legal regulations in their countries are suitable for digital transformation in higher education. The results show that students in Spain have a more positive opinion of the compliance of legal regulations for digital transformation than students from other countries.

Figure 1. The Existing Legal Regulations in the Countries

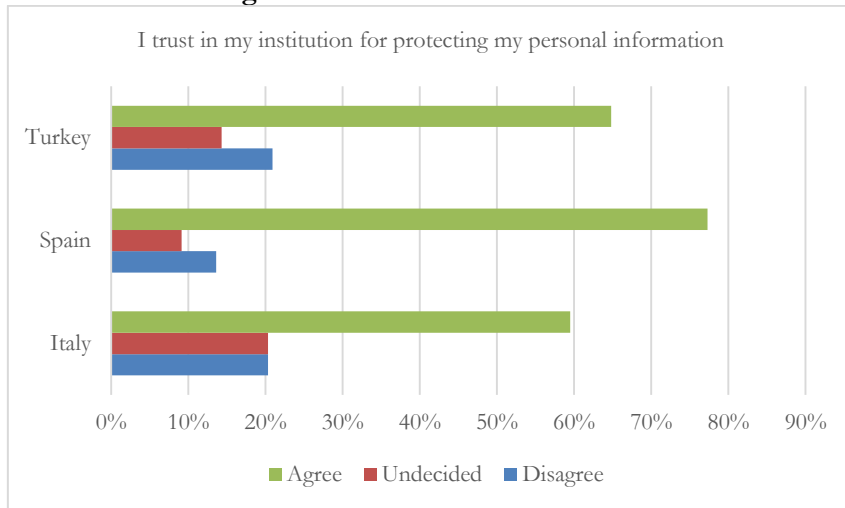


On the one hand, digitalisation offers serious conveniences in every field where it is transformed, on the other hand, it exposes institutions to threats such as the protection of personal data. With digitalisation, traditional security concepts lose their meaning and require countries to produce more comprehensive policies. In this context, Europe started a serious initiative on data privacy and security with the General Data Protection Regulation (GDPR), which came into force in 2016 and is expected to comply with all organizations by 2018 (Wolford, 2021). It is aimed to encourage the positive aspects of digital developments and to control the negative aspects.

In Turkey, the Personal Data Protection Law, which was prepared within the scope of the EU harmonization process, was published in the official gazette in 2016 and aimed to protect data flows and personal data. In this context, the expression following is prepared to measure the views of students regarding the protection of their country's personal data “D1.2 *I trust in my institution for protecting my personal*

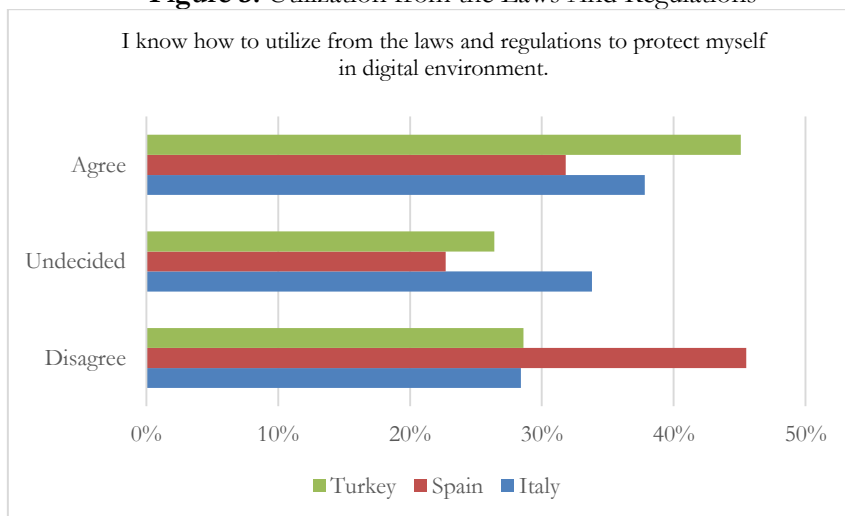
information”. If we are to interpret the numbers, it is seen that 59.5% of the students in Italy, 77.3% of the students in Spain and 64.8% of the students in Turkey gave positive answers. The results show that students in Spain trust their institutions more than other countries for the protection of their personal data.

Figure 2. Protection of Personal Data



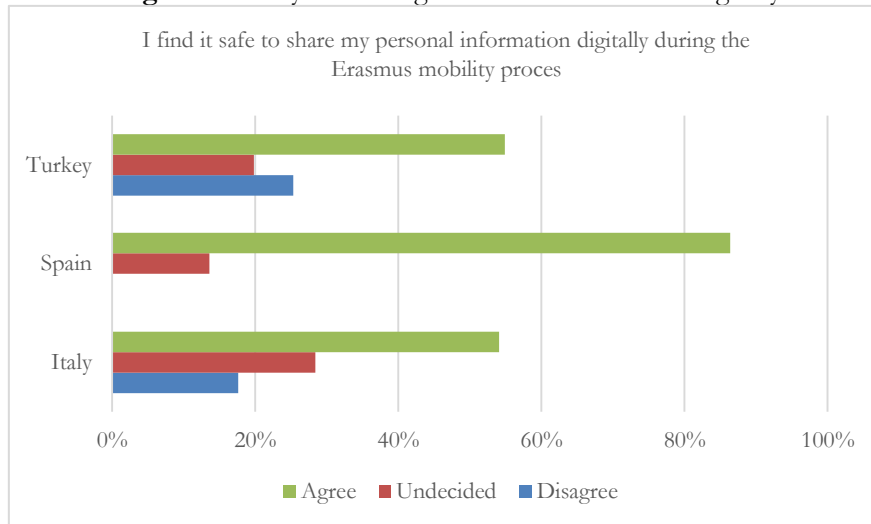
Personal data security starts with the person himself, and the more aware and conscious he is, the more he stays away from the negative effects of digital transformation. The fact that students are not informed about the use of their personal data in higher education institutions, or they remain unresponsive despite the information given will create a serious security problem. In this context, students will also need to increase their awareness of the subject and protect themselves in possible situations. In order to measure the awareness of the students participating in the survey on this issue, the following statement was asked to be scored. “D1.3. I know how to utilize from the laws and regulations to protect myself in digital environment”. According to the results given in Figure 3, 37,8% of the students in Italy, 31,8% of the students in Spain and 45,1% of the students in Turkey stated that they are aware of the laws and regulations in their country. The results show that students in Turkey are more conscious about this issue compared to other countries.

Figure 3. Utilization from the Laws And Regulations



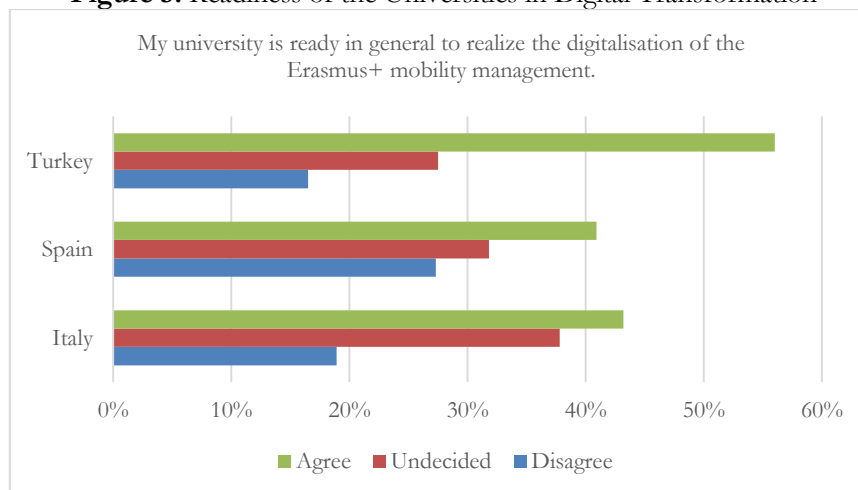
The collection and processing of data has some challenges in the digital transformation process. In the digitalisation process of the Erasmus+ Programme, sharing of students data over the system brings security and privacy concerns in the first place. At this point the expression below was aimed to find out the opinions about this matter: “D1.4. I find it safe to share my personal information digitally during the Erasmus mobility process”. According to the results given in Figure 4, 54,1% of the students in Italy, 86,4% of the students in Spain and 54,9% of the students in Turkey find it safe to share their personal information during the Erasmus mobility process.

Figure 4. Safety of Sharing Personal Information Digitally



Security, infrastructure, legal issues, policy implementations and many other factors affect the digital transformation of institutions. For this reason, institutions that want to harmonise with the digitalisation procedures need to take these factors into account. The following statement is directed to the respondents to understand the state of preparation for the digitalisation of Erasmus mobility processes in students' universities. “D1.5. My university is ready in general to realize the digitalisation of the Erasmus+ mobility management.” Looking at the results, 43,2% of students in Italy, 40,9% of students in Spain and 56% of students in Turkey stated that their institutions are ready for the digitalisation of Erasmus+ mobility processes.

Figure 5. Readiness of the Universities in Digital Transformation



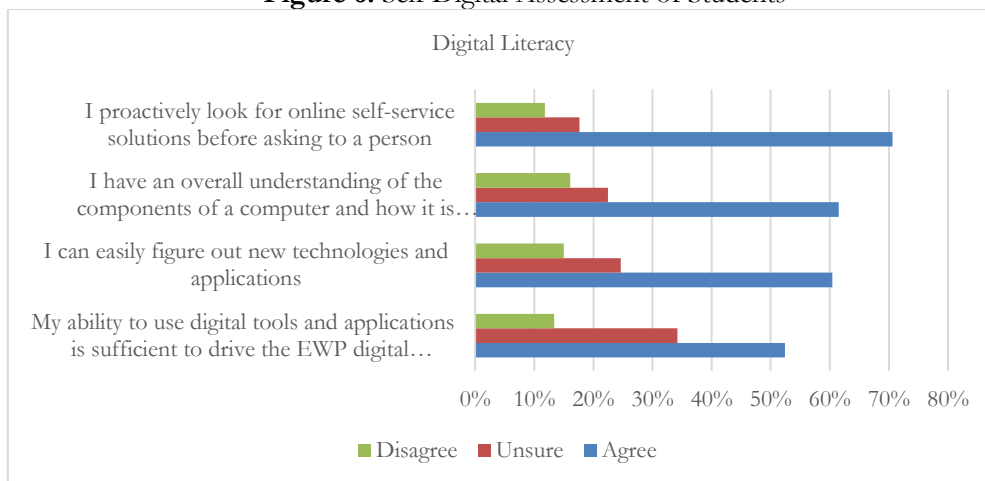
5.2. Digital Skills of the Students

With the rapid introduction of digital technologies into our lives, it has become very important to adapt the digital skills of the end users in the same way. It has become necessary to acquire the up to date knowledge and skills necessary for an active life in many social and economic fields (Kavrar, 2021: 351). In higher education, it is necessary to prepare and encourage the infrastructure of a series of pedagogical skills that support interaction with technological tools. In addition to integrating digital tools in the digital transformation process of the Erasmus+ Programme, it is necessary to develop the digital skills of the students, who are the most important stakeholders of the process, and to provide the necessary training, information and documents for this. Digital skills of the students were investigated under two headings namely general digital literacy and digital skills required for the EWP.

5.2.1. General Digital Literacy

Statements conveyed to students to assess their own digital skills include making use of available online resources, their level of knowledge about computers and its components in general, their aptitude for new technologies, and their ability to specifically apply EWP and OLA. The students stated that they were generally sufficient in terms of their digital skills. It is seen that today's students, especially the so-called generation Z, can acquire sufficient equipment to adapt to the digital age. In particular, the indecisive responses of the students to the OLA statement can be explained by the fact that they do not know about this application or have never used it before.

Figure 6. Self Digital Assessment of Students



Our study has shown that students generally use online resources to improve their digital skills, so enriching online content is important. These include training videos, frequently asked questions, dictionaries, toolkits, etc. can take place. Another prominent issue was that young people could easily adapt to innovations. As it is known, the resistance to digital transformation that occurs when there is not enough digital skills causes concern in many institutions. However, the flexible and ready attitudes of the new generation in this regard will help in turning adaptation to changes into a culture (Kavrar, 2021: 349).

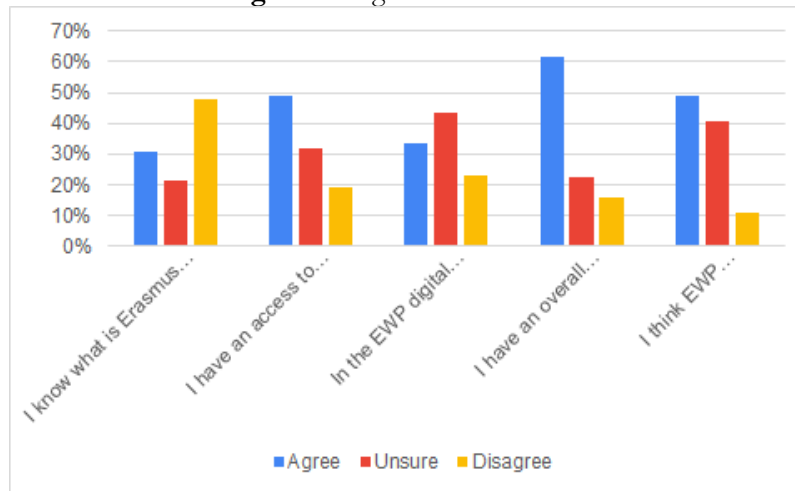
The results of the study are largely in line with the results of the study by (Tejedor et al., 2020: 48) included evaluations of students' digital skills in Spain in their study. According to the results of this research, the confidence of students in Spain in their own digital skills increased by 74.8%, Compared this statistic with our research, 77.3% of the students in Spain stated that they have a command of computer technologies.

5.2.2. Digital Skills Required for the EWP

Erasmus App is one of the most concrete applications in the digitization of Erasmus+ mobility processes. With the application, which enables Erasmus exchange programme participants to manage their

mobility processes through a mobile application, it is aimed to make mobility easy and accessible to every user. In this context, the level of students' digital skills was investigated which can be seen from the Figure 7.

Figure 7. Digital Skills for EWP



The level of knowledge of the students about the Erasmus App was investigated with the following statement: "D2.1. I know what Erasmus App is and how it works". Looking at the results in Figure 7, it is seen that a significant proportion of the students (47.6%) still do not have information about the Erasmus App that is expected to be compulsory in 2021.

Digital transformation also increases the need for students to learn and acquire new skills. At this point, a significant part of the students, 48.7%, gave a positive answer to the following statement made within the scope of the research. "D2.2. I have an access to training materials, modules and website that will give practical information about the best use of the digital tools". According to the study, 19.3% of the students stated that they do not have access to training materials, modules and websites.

Training for digital skills is one of the most important stages of the digital transformation process. As a matter of fact, the process of completing the digital transformation, integrating the existing system with the technologies, and transferring this to the users brings along a serious training process. In this context, especially Erasmus Office employees have important duties in the digital transformation process of the Erasmus+ Programme. Successful integration of students into the digital transformation process requires, first of all, informing about the process and educating students in this sense. Within the scope of the research, it is aimed to measure the level of information of the students by the Erasmus office staff with the following statement. "D2.3. In the EWP digital transformation process, Erasmus office staff have provided sufficient training to the students". According to the results, a significant part of the students approached this statement undecided. Only 33.7% of the students think that they are adequately informed by the Erasmus offices in the digital transformation process of the Erasmus+ programme. The low rate indicates that the transformation process of the Erasmus+ Programme may take longer than expected.

In addition to the training to be given to the students in the digital transformation process of the Erasmus+ Programme, it is also very important to have knowledge about computer technologies at a level to understand these educations. In this context, students were asked for their opinions on the next statement. "D2.4. I have an overall understanding of the components of a computer and how it is connected to other devices". As can be seen from the Figure 7, more than half of the students, 61.5%, have sufficient knowledge of computer technologies.

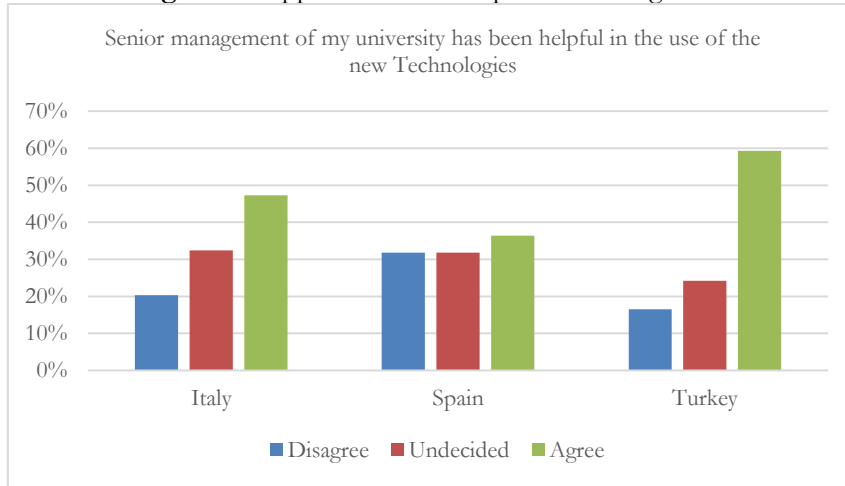
The transformation of the Erasmus+ Programme affects all the stakeholders in the mobility process, and in order for the process to work properly, the necessary information and documents regarding the integration process should be presented in detail for each stakeholder. In this context, the views of the students were examined in order to get information about the adequacy of the information and

documents related to the EWP. "D2.5. I think EWP documentations are descriptive / useful enough for integration". 48.7% of the students stated that the documents related to the EWP were sufficient.

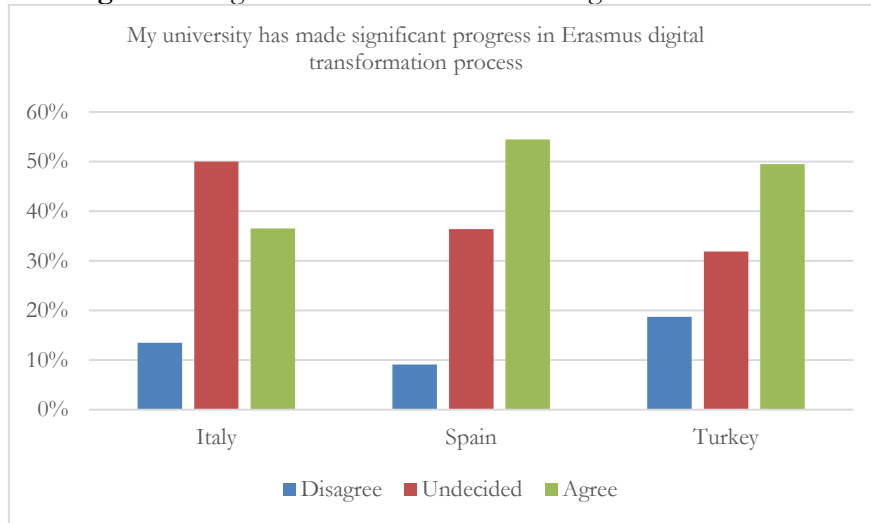
5.3. Coordination of Digital Transformation at the Institutions

Communication and coordination are important steps in (Kotter, 1996) eight-stage change management process and greatly influences the success and speed of digital transformation (West-Communication, 2016). Ensuring coordination between all units and stakeholders in the area where the transformation will take place has a key role. Because the realization of digital transformation in an effective and efficient way requires considering the institution as a whole and working in coordination not only with the unit where the transformation takes place, but also with other units. Otherwise, it is not possible for the unit within the institution to realize this transformation alone. In this context, students were asked for their opinions on the statements given in order to measure the coordination of their universities with the digitalisation process. "D3.1. Senior management of my university has been helpful in the use of the new Technologies". As can be seen from the Figure 8, 47.3% of the students in Italy, 36.4% of the students in Spain, and 59.3% of the students in Turkey gave a positive answer to the above statement.

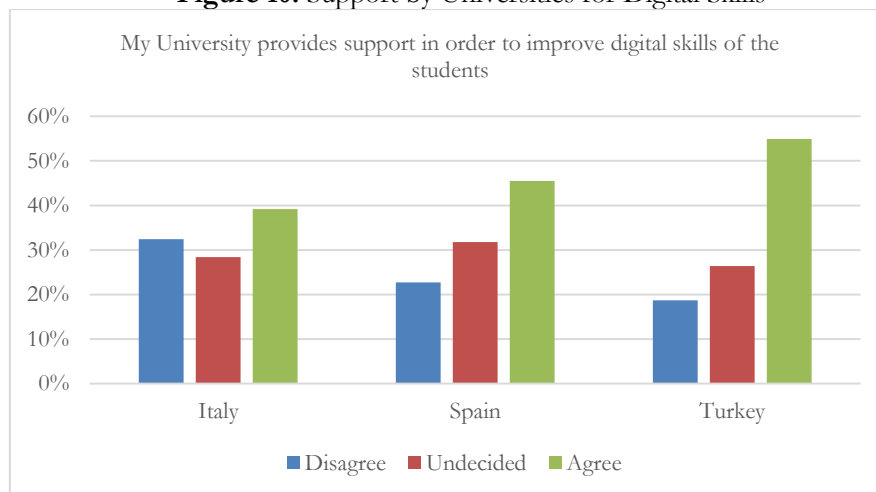
Figure 8. Support from the Top-Level Management



Another statement addressed to students in this context is about the progress in the transformation process of the Erasmus+ Programme of universities. "D3.2 My University has made significant progress in Erasmus digital transformation process". According to the responses, 36.5% of the students in Italy, 54.5% of the students in Spain and % of the students in Turkey 49.5 of them gave a positive answer. It can be seen from the Figure 9 that the rate of those who do not express their opinion about the said expression is also high.

Figure 9. Progresses of the Institutions in Digital Transformation

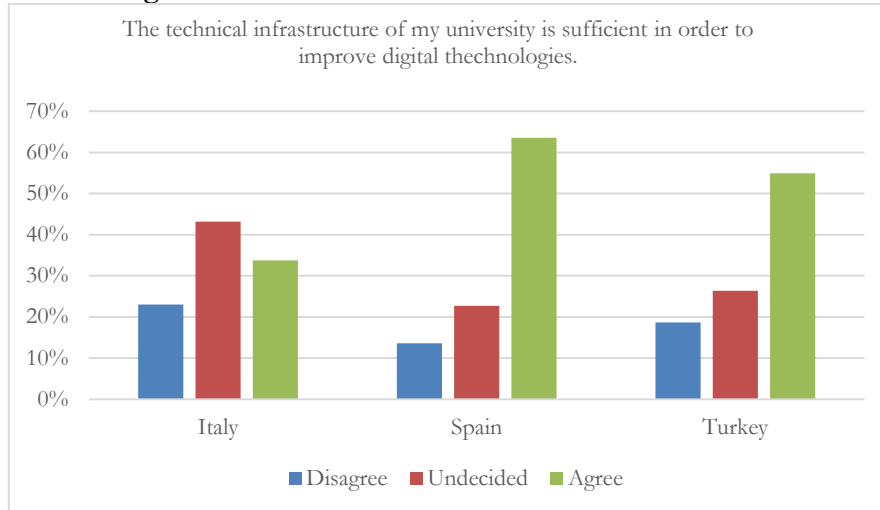
In the previous part of the study, the contribution of students' digital skills to the digital transformation process was discussed in detail. In addition to the digital skills of the students, the support provided by the universities for the development of their digital skills also contributes a lot. In (Tejedor et al., 2020: 48) study, which comparatively analyzes digital literacy in higher education institutions in Italy, Spain and Ecuador, it is stated that the support to be given to students in the development of digital skills will contribute to their access to digital learning resources on the one hand and enable the development of digital skills on the other. In this context, students were asked for their opinions on the following statement. "D3.3. My university provides support in order to improve digital skills of the students". As can be seen from the Figure 10, 39.2% of the students in Italy, 45.5% of the students in Spain and 54.9% of the students in Turkey gave a positive answer. Parallel to the previous statement, the rate of those who did not express their opinion in this statement is quite high.

Figure 10. Support by Universities for Digital Skills

The following statement was questioned regarding the evaluation of the technical infrastructure of the universities: "D3.4. The technical infrastructure of my university is sufficient in order to improve digital technologies". 33.8% of students in Italy, 63.6% of students in Spain and 54.9% of students in Turkey participate. When we look at the Figure 11, it is seen that the students who are undecided about the statement in Italy are

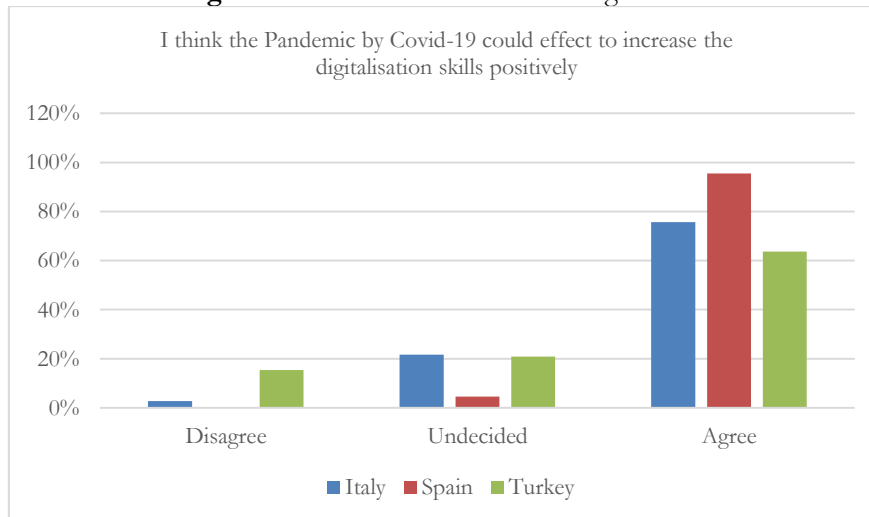
more than the students who give a positive opinion. Therefore, the students do not have enough information about the technical infrastructure.

Figure 11. The Technical Infrastructure of the Universities



The COVID-19 process, on the one hand, provided a remarkable maturity in digitalisation in many areas, on the other hand, it has been a driving force for users to develop their digital skills. In this context, the following view has been examined in order to understand the impact of the COVID-19 process on students' digital abilities. "*D3.5. I think the Pandemic by COVID-19 could effect to increase the digitalisation skills positively*". The vast majority of students, 72.2%, stated that COVID-19 had a positive effect on their digital skills. This conclusion is also in line with the literature by (Gordon, 2021; Tejedor et al., 2020; Webb, McQuaid & Webster, 2021).

Figure 12. COVID-19 Effects on Digital Skills

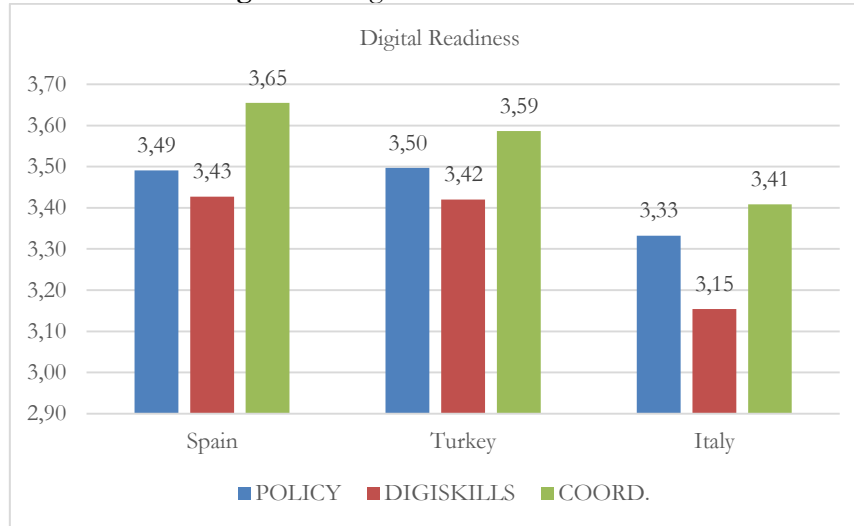


5.4. General Evaluation of Student's Digital Readiness

According to the research, students in Spain are generally more ready for digital transformation compared to other countries. Although there are no obvious differences between countries, another point that stands out is that Italian students feel less ready in each category than students from other countries.

In Turkey, the opinion that students are more mature in terms of political, legal and privacy issues come to the fore.

Figure 13. Digital Readiness of Students



As can be seen from the Figure 13, Spain has the highest score in Coordination of the Digital Transformation with 3,65, that is followed by Turkey and Italy with 3,59 and 3,41 respectively. On the contrary, Italy has the lowest score in Digital skills of the students which needs to be improved in order to experience a smooth transition process. For Turkey, policy, privacy and legal issues received the highest score in terms of digital readiness. Overall, the responses of the students from all three countries are similar to each other only by tiny differences. This tells us that the digital readiness of the students at three different countries are progressing at the same level and speed. This may be due to the high interaction between the HEIs which are bound by the Erasmus rules and regulations.

6. Conclusion and Recommendation

Digital technologies, which have influenced the whole world more than ever in the last decade, have become the main tool of the transformation process in many areas. As one of the areas most affected by digital technologies, higher education institutions face serious challenges in keeping up with this transformation process. As a matter of fact, higher education institutions are faced with many issues such as the acceptance of change by all stakeholders in the digital transformation process, providing the necessary training to the stakeholders and the readiness of the technical infrastructure. The European Commission's initiation of a mandatory process for the completion of the digital transformation of the Erasmus+ exchange programme at the end of 2021 has mobilized higher education institutions. The inclusion of all stakeholders involved in mobility in the transformation process has a significant impact on the successful completion of the process.

In this context, in this study, it was investigated how prepared the students, who are the most important stakeholders of the Erasmus mobility process, are for the digital transformation of the Erasmus+ Programme. Within the scope of the study, a questionnaire was applied to 187 students from higher education institutions in Italy, Spain and Turkey in march-june and the obtained data were analyzed under three dimensions. Considering the results of the research, it was seen that meaningful data were obtained that allow comparison between countries. In this context, when we look at the general analysis of the digital status of the students according to their countries, it is seen that Spain is more ready compared to other countries. The results show that universities in Italy are behind in the digital transformation process of Erasmus. Digital transformation can be realized with the involvement and knowledge of all stakeholders from top to bottom within the organization. In this context, the results of the research show

that the students are still not aware of the tools (Dashboard, OLA Erasmus APP) related to the digitization of the Erasmus+ Programme. In this context, it is clear that more training and information about the process should be given to the students.

The results obtained from the study can be sorted as follows:

- The students in Spain have a more positive opinion of the compliance of legal regulations for digital transformation than students from other countries.
- The students in Spain trust their institutions more than other countries for the protection of their personal data.
- Compared to other countries, the students in Turkey are more conscious about the laws and regulations in their country.
- A significant proportion of the students (47.6%) still do not have information about the Erasmus App that is expected to be compulsory in 2021.
- The students are adequately informed by the Erasmus offices about transformation process. (Only 33.7% of the students think positive) The low rate indicates that the transformation process of the Erasmus+ Programme may take longer than expected.
- Significant proportion of the students (47.6%) still do not have information about the Erasmus App that is expected to be compulsory in 2021.
- The students in Italy are undecided about the technical Infrastructure of the Universities. Therefore, the students do not have enough information about the technical infrastructure.
- The vast majority of students accept that COVID-19 had a positive effect on their digital skills
- University administrations are generally successful in the coordination of digital transformation in their institutions.

To summarize, in the Erasmus+ Programme, individuals, institutions and countries have serious efforts to adapt to the digital transformation that started before the pandemic. Although significant progress has been made with the increasing digital investments with the obligations brought by the pandemic, it is seen that the desired levels have not been reached yet. It should not be forgotten that digitalisation is a process and it should turn into a culture in institutions. Because, even in institutions that are 100% ready for digital transformation in terms of technical infrastructure, productivity is low for teachers and students who are not ready for these new education and training platforms.

Acknowledgements

The survey data of this study were partially derived from the Desk Research Report of the Erasmus+ KA2 SUDTE project. Therefore, the authors would like to thank Assoc. Prof. Dr. Abdulkadir GÖLCÜ as the coordinator of the project (Project No: 2020-1-TR01-KA203-093849). for granting permission to reproduce material in this work.

References

- Gordon, R. (2021). How COVID-19 is reshaping higher education. *CPA Australia*, <https://www.intheblack.com/articles/2021/02/01/reshaping-higher-education>, Viewed on 03/09/2021
- Kavrar, Ö. (2021). Yükseköğretimde Dijital Dönüşüm: Dijital Olgunluk ve Değişim Yönetimi. (Editor: Usta Sefa, Kocaoğlu Mustafa), *Kurumsal Bilgi Yönetimi*. Konya: Eğitim Yayınevi, 341-358.
- Kharkivska, A. A., Molchaniuk, O. V., Prokopenko, M. O., Palchyk, O. O., Kadenko, I. V. & Borzyk, O. B. (2021). Transformation of student-centred approach in the context of digitalisation of education. *Apuntes Universitarios*, 11 (4), 323-341.
- Kotter, J. P. (1996). *Leading Change*. Brighton: MA: Harvard Business Press.
- Monteiro, A. R. & Leite, C. (2021). Digital literacies in higher education: skills, uses, opportunities and obstacles to digital transformation. *Red-Revista De Educacion a Distancia*, 21 (65), 1-20. doi: <https://doi.org/10.6018/red.438721>
- Rodriguez-Moreno, J., Ortiz-Colon, A. M., Cordon-Pozo, E. & Agreda-Montoro, M. (2021). The influence of digital tools and social networks on the digital competence of university students during covid-19 pandemic. *International Journal of Environmental Research and Public Health*, 18 (6), 1-18. doi: <https://doi.org/10.3390/ijerph18062835>

Tejedor, S., Cervi, L., Perez-Escoda, A. & Jumbo, F. T. (2020). Digital literacy and higher education During covid-19 lockdown: spain, italy, and ecuador. *Publications*, 8 (4), 1-17. doi:doi:10.3390/publications8040048

Webb, A., McQuaid, R. W. & Webster, C. W. R. (2021). Moving learning online and the COVID-19 pandemic: a university response. *World Journal of Science Technology and Sustainable Development*, 18 (1), 1-19. doi: 10.1108/WJSTSD-11-2020-0090

West-Communication (2016). *Business Communications Essentials for Digital Transformation*. White paper.

Wolford, B. (2021). What is GDPR, the EU's new data protection law?. <https://gdpr.eu/what-is-gdpr> viewed on 05/09/2021.

Arařtırmacıların Katkı Oran Beyanı / Contribution of Authors

Yazarların alıřmadaki katkı oranları %50/%50 řeklinde dir.
The authors' contribution rates in the study are %50/%50 form.

ıkar atıřması Beyanı / Conflict of Interest

alıřmada herhangi bir kurum veya kiři ile ıkar atıřması bulunmamaktadır.
There is no conflict of interest with any institution or person in the study.

İntihal Politikası Beyanı / Plagiarism Policy

Bu makale İntihal programlarında taranmıř ve İntihal tespit edilmemiřtir.
This article was scanned in Plagiarism programs and Plagiarism was not detected.

Bilimsel Arařtırma ve Yayın Etięi Beyanı / Scientific Research and Publication Ethics Statement

Bu alıřmada Yksekğretim Kurumları Bilimsel Arařtırma ve Yayın Etięi Ynergesi kapsamında belirtilen kurallara uyulmuřtur.

In this study, the rules specified within the scope of the Higher Education Institutions Scientific Research and Publication Ethics Directive were followed.